

11/17/21

DRAFT

Minutes

**Environmental Management Commission Meeting
Alabama Department of Environmental Management Building
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400
October 8, 2021**

DRAFT

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Convened: 11:01 a.m.

Adjourned: 12:55 p.m.

Part A

**Transcript
Word Index**

Part B

Attachment Index

**Attachment 1
Attachment 2
Attachment 3
Attachment 4
Attachment 5
Attachment 6
Attachment 7
Attachment 8
Attachment 9**

Part A

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

ALABAMA ENVIRONMENTAL MANAGEMENT
COMMISSION MEETING

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Alabama Room (Main Conference Room)

1400 Coliseum Boulevard

Montgomery, Alabama 36110-2400

October 8, 2021

11:01 a.m.

Taken by: Victoria M. Castillo, ACCR No. 17

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 2..5

	Page 2		Page 4
<p>1 APPEARANCES</p> <p>2</p> <p>3 COMMISSION MEMBERS PRESENT:</p> <p>4 H. Lanier Brown, II, Esq.</p> <p>5 John (Jay) H. Masingill, III, Vice Chair</p> <p>6 Mary J. Merritt</p> <p>7 Samuel L. Miller, M.D.</p> <p>8 Ruby L. Perry, D.V.M.</p> <p>9 Thomas P. Walters, P.E., Chair</p> <p>10</p> <p>11 COMMISSION MEMBER NOT PRESENT:</p> <p>12 Kevin McKinstry</p> <p>13</p> <p>14 ALSO PRESENT:</p> <p>15 Robert D. Tambling, AEMC Legal Counsel</p> <p>16 Debi Thomas, AEMC Executive Assistant</p> <p>17 Lance R. LeFleur, ADEM Director</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>		<p>1 DR. MILLER: Okay. All right.</p> <p>2 Now, the next item on our agenda is the elections</p> <p>3 of the Chairman and Vice-Chairman of the</p> <p>4 Commission.</p> <p>5 Before I role off, I wanted to say</p> <p>6 how much help and patience that Debi and Robert</p> <p>7 and Laura have had with me. They have been most</p> <p>8 helpful, and I appreciate it very much. And I'm</p> <p>9 sure they'll do the same for the next Chairman.</p> <p>10 At this point, I will entertain</p> <p>11 nominations for the Chairman.</p> <p>12 MS. MERRITT: I move that we</p> <p>13 elect -- I nominate Thomas Walters as our Chair.</p> <p>14 DR. MILLER: We have a motion</p> <p>15 for Thomas Walters.</p> <p>16 Anybody want to second?</p> <p>17 MR. MASINGILL: Second.</p> <p>18 DR. MILLER: Motion and a</p> <p>19 second.</p> <p>20 Any further candidates?</p> <p>21 (No response.)</p> <p>22 DR. MILLER: Okay. All in favor</p> <p>23 of Thomas Walters as the new Chairman, please</p> <p>24 raise your right hand.</p> <p>25 (All Commission members affirm.)</p>	
<p>1 (Proceedings began at</p> <p>2 11:01 a.m.)</p> <p>3 DR. MILLER: Good morning and</p> <p>4 welcome to the October 8th meeting of the</p> <p>5 Environmental Management Commission. We have a</p> <p>6 quorum present. We have circulated the minutes</p> <p>7 for all the Commissioners to read.</p> <p>8 And I would entertain a motion to</p> <p>9 adopt those minutes.</p> <p>10 MR. BROWN: So moved.</p> <p>11 DR. PERRY: Second.</p> <p>12 MS. MERRITT: Second.</p> <p>13 DR. MILLER: Motion and second.</p> <p>14 Any further discussion?</p> <p>15 (No response.)</p> <p>16 DR. MILLER: If not, all those</p> <p>17 in favor, please raise your right hand.</p> <p>18 (All Commission members affirm.)</p> <p>19 DR. MILLER: All opposed, same</p> <p>20 sign.</p> <p>21 (No response.)</p> <p>22 DR. MILLER: Debi, do you want</p> <p>23 us to wait until we sign that thing or not?</p> <p>24 MS. THOMAS: Right, I will do</p> <p>25 that with the Chair.</p>	Page 3	<p>1 DR. MILLER: All opposed, same</p> <p>2 sign.</p> <p>3 (No response.)</p> <p>4 DR. MILLER: The new Chairman is</p> <p>5 Tom Walters.</p> <p>6 And we're -- well, I will finish the</p> <p>7 election first. Let's do a Vice-Chair vote. Do</p> <p>8 we have a nomination for Vice-Chair?</p> <p>9 DR. PERRY: Mr. Chairman, I</p> <p>10 nominate John Masingill to serve in the capacity</p> <p>11 as Vice-Chair of the Commission.</p> <p>12 DR. MILLER: All right. We have</p> <p>13 a nomination for Commissioner Masingill.</p> <p>14 MR. BROWN: Second. Second.</p> <p>15 DR. MILLER: I think I heard a</p> <p>16 second.</p> <p>17 MR. BROWN: You did hear a</p> <p>18 second.</p> <p>19 DR. MILLER: All in favor, raise</p> <p>20 your right hand.</p> <p>21 (All Commission members affirm.)</p> <p>22 DR. MILLER: All opposed, same</p> <p>23 sign.</p> <p>24 (No response.)</p> <p>25 DR. MILLER: All right. Well,</p>	Page 5

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 6..9

<p style="text-align: right;">Page 6</p> <p>1 it looks like we have a new Chairman and Vice- 2 Chairman. And I'm going to swap with Tom. 3 MR. WALTERS: Before we 4 continue, I just want to, on behalf of the rest 5 of the Commission, show our appreciation to Sam 6 Miller in serving in the Chair capacity for the 7 past three years. 8 You've done an excellent job. 9 I'm going to go ahead and continue 10 on. Agenda item number 3 is the report from our 11 ADEM Director. 12 Call on Director LeFleur to give his 13 report. 14 MR. LEFLEUR: Well, Dr. Miller, 15 I want to thank you for your service also as 16 Chairman and each of the Commissioners for 17 you-all's service. It's sometimes clearly a 18 thankless job. 19 And I'm going to congratulate you, 20 Mr. Chairman, on your hard-fought victory in your 21 election and looking forward to working with you 22 as Chairman. 23 With that, I would like to welcome 24 those who are present, in addition to the 25 Commission, for this first meeting of the Alabama</p>	<p style="text-align: right;">Page 8</p> <p>1 relationships with external stakeholders, and 2 efficient and effective Departmental operations. 3 The Department's Annual Operating 4 Plan has objectives that can be categorized in 5 two ways: Those that are continuous and those 6 that have a finite completion time frame. 7 Continuous objectives are those that 8 are in the Operating Plan every year. These are 9 activities like communication practices, 10 promoting professional development, regular 11 measuring of performance, public outreach 12 activities, innovation, and so forth. 13 Finite objectives include such 14 activities as completing construction on physical 15 facilities, implementing specific new programs or 16 systems, technology upgrades, and the like. 17 The FY 2021 Operating Plan had 101 18 objectives, with 57 categorized as continuous and 19 44 with a finite completion schedule. All finite 20 objectives due to be completed in 2021 were 21 accomplished and planned progress on all other 22 objectives was achieved. 23 The FY 2022 Operating Plan has 105 24 itemized objectives, of which 45 have a finite 25 completion schedule.</p>
<p style="text-align: right;">Page 7</p> <p>1 Environmental Management Commission for fiscal 2 year 2022. This being the beginning of the new 3 fiscal year, today's report will review the 4 Department's Operating Plan results for FY 2021 5 and the new FY 2022 Plan. 6 In 2019, the Department and the 7 Commission updated the Unified Strategic Plan, as 8 is done every five years. The goals in the 9 Department's Annual Operating Plan are the same 10 as those in the five-year Unified Strategic Plan. 11 To achieve the five-year goals in the Strategic 12 Plan, each year the Department develops an Annual 13 Operating Plan that sets forth specific 14 objectives toward achieving the goals. Today's 15 report will review those objectives for FY '21 16 and FY '22. 17 Let's see, my clicker is not doing 18 quite right now. Where are our IT gurus? Okay. 19 Number one guru. It was working earlier. Did I 20 mess something up? All right. We're on -- let's 21 go back here a ways. All right. So here we go. 22 The Strategic Plan and the Annual 23 Operating Plans each year have the shared goals 24 of an effective and responsive Commission, high 25 performing work environment, credible</p>	<p style="text-align: right;">Page 9</p> <p>1 The next several slides will recap 2 some of the individual FY 2021 Departmental 3 Operating Plan objectives accomplished during the 4 past fiscal year and provide a general 5 description of some of the new objectives in the 6 FY '22 Plan. 7 The objectives are grouped under the 8 four broad shared goals in the Unified Five-Year 9 Strategic Plan. 10 The first goal in the Department's 11 Annual Operating Plan is to have an effective and 12 responsive Commission. To achieve this goal, 13 there must be effective communication between me, 14 as Director, and each of the seven Commissioners. 15 This involves a set of ongoing objectives that 16 continue year to year. 17 The Commission and the public are 18 provided a written schedule of all anticipated 19 rulemaking well before proposed rules are 20 formally presented. Before each of the six 21 regularly scheduled Commission meetings, the 22 "Ongoing Rulemaking Information" memo is sent to 23 each Commissioner and posted on the ADEM website. 24 This practice will continue. 25 The Director will continue</p>

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 10..13

Page 10	Page 12
<p>1 one-on-one meetings six times per year with each 2 Commissioner to discuss the latest issues 3 confronting the Department and affecting our 4 environment.</p> <p>5 As in the past, the Director will 6 provide a written memorandum entitled "ADEM 7 Update" prior to each Commission meeting 8 highlighting significant new activities in each 9 of the Department's five divisions and addressing 10 interim progress on the individual objectives set 11 out in the Department's Annual Operating Plan.</p> <p>12 And the Director will deliver a 13 report at each Commission meeting. The reports 14 will include a review of standard EPA performance 15 metrics, an analysis of the State of the 16 Environment in Alabama, and other current 17 environmental topics.</p> <p>18 Each of these objectives was 19 accomplished in FY '21 and will continue in FY 20 '22. The "Ongoing Rulemaking" memo, the "ADEM 21 Update" memo, and the Director's Reports are 22 available to any interested party on the ADEM 23 website in eFile under the heading "Director's 24 Correspondence".</p> <p>25 Goal 2, high performing work</p>	<p>1 for emergency and disaster relief generators 2 needed by drinking water and wastewater systems, 3 \$319,000 for lead testing in pre-K and day care 4 facilities, and \$200,000 for expansion of our 5 exchange network to increase Departmental 6 efficiency through e-enterprise. In total, the 7 Department was able to obtain grant funding of 8 nearly \$1.6 million over and above normal 9 programmatic funding.</p> <p>10 Now, just yesterday we received 11 notification that we are going to be awarded 12 another competitive grant in the total amount of 13 \$1 million. Now, it will not be published or 14 made known to the public for another week, but we 15 will report on that when that takes place.</p> <p>16 The Department also successfully 17 worked with drinking water and wastewater systems 18 in communities with boating infrastructure needs 19 to obtain \$2.3 million in pass-through grants. 20 These represent good progress in our continuous 21 effort to obtain innovative funding for the 22 Department and the public entities we regulate.</p> <p>23 In FY 2021, we made progress on our 24 largest fiscal resource upgrade, the multi-year 25 Mobile Field Office development. Progress was</p>
Page 11	Page 13
<p>1 environment, has several subgoals or objectives 2 that focus on resource management including 3 financial, physical, and human resources. Other 4 objectives under this goal focus on management 5 activities that promote high performance. There 6 are both ongoing objectives that are the same 7 year to year and fixed horizon objectives that 8 are to be accomplished within a specific time 9 frame that may be one or more years.</p> <p>10 On the financial and physical 11 resources side:</p> <p>12 As was the case for fiscal year 13 2021, the Department successfully worked with the 14 Governor's Office, Legislative leadership, and 15 interested non-governmental individuals and 16 entities to obtain the Department's FY 2022 17 General Fund appropriation of \$4 million, which 18 represents about 7 percent of our operating 19 budget.</p> <p>20 In FY 2021, the Department was also 21 successful in obtaining other financial resources 22 in addition to our General Fund appropriation and 23 the normal programmatic funding from EPA. 24 Several noteworthy competitive grants were 25 \$500,000 for waterway litter reduction, \$340,000</p>	<p>1 slower than planned, due in part to external 2 engineering consultant COVID-19 issues and 3 federal delays in standing up the RESTORE Act 4 review process. As you know, a \$5.9 million 5 RESTORE Act grant is providing most of the 6 funding for this project.</p> <p>7 In the human resource management 8 effort to promote a high performing work 9 environment, the Department has continued to 10 recruit interns and co-op students with the 11 objective of encouraging the most talented 12 candidates to become permanent employees when 13 they graduate. During 2021, we were able to 14 recruit eight interns and co-ops, which is up 15 from fiscal year 2020 despite the continuing 16 COVID-19 pandemic.</p> <p>17 The Department has and will continue 18 to focus on advancing diversity within the 19 Department through specific initiatives, 20 including recruiting at all in state and many 21 out-of-state historically black colleges and universities. 22 We recruit minority and disadvantaged candidates 23 from many other regional colleges and 24 universities as well. In keeping with the 25 current trend in recruiting, we are also using</p>

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 14..17

Page 14	Page 16
<p>1 online recruiting services.</p> <p>2 Another ongoing objective in the</p> <p>3 management of human resources is to promote</p> <p>4 professional development of our workforce, which</p> <p>5 is necessary to support a high performance</p> <p>6 organization.</p> <p>7 Progress made includes: During</p> <p>8 fiscal year 2021, 29 individuals completed a</p> <p>9 voluntary leadership training program developed</p> <p>10 by the Department in cooperation with Auburn</p> <p>11 University at Montgomery. The program trains</p> <p>12 ADEM professional staff who have not yet become</p> <p>13 managers. In total, 87 personnel have completed</p> <p>14 the program since its inauguration in 2019. The</p> <p>15 fiscal year 2022 Operating Plan continues the</p> <p>16 leadership training initiative.</p> <p>17 Among the most significant personnel</p> <p>18 programs in FY '20 and '21, that will</p> <p>19 continue in FY '22, is teleworking. The</p> <p>20 Department, working again in cooperation with</p> <p>21 Auburn University at Montgomery, developed a</p> <p>22 specialized program to train managers on how to</p> <p>23 manage a remote workforce. All our managers have</p> <p>24 completed the course. Approximately 55 percent</p> <p>25 of our personnel are able to telework either one</p>	<p>1 recognize you with your beard.</p> <p>2 (Audience applause.)</p> <p>3 MR. LeFLEUR: But Richard is</p> <p>4 also one of our PhDs in our Land Division.</p> <p>5 Richard, congratulations and thank</p> <p>6 you for your hard work. And you get a raise.</p> <p>7 MR. JANNETT: Thanks.</p> <p>8 MR. LeFLEUR: This list of</p> <p>9 professional development objectives does not</p> <p>10 include the numerous continuing education</p> <p>11 programs our personnel engage in to maintain</p> <p>12 their accreditations. The FY '22 Operating Plan</p> <p>13 will continue to emphasize professional</p> <p>14 development.</p> <p>15 Also within this broad goal of</p> <p>16 promoting a high performing work environment, we</p> <p>17 will continue the practice of regularly using</p> <p>18 objective, relevant data to measure work</p> <p>19 performance. This is accomplished, in part, by</p> <p>20 presenting updated standard EPA dashboard</p> <p>21 analyses for the Air, Water, Hazardous Waste and</p> <p>22 Drinking Water programs at Commission meetings.</p> <p>23 We present these metrics to keep the Commission</p> <p>24 and the public informed about performance, but as</p> <p>25 importantly, the Department uses the dashboards</p>
Page 15	Page 17
<p>1 or two days per week.</p> <p>2 We currently have 11 individuals in</p> <p>3 the Certified Public Manager (CPM) I</p> <p>4 accreditation program and 11 more in the Advanced</p> <p>5 CPM II program. They will graduate later this</p> <p>6 month and I will introduce them individually at</p> <p>7 the December Commission meeting.</p> <p>8 In FY 2020, the Department began</p> <p>9 providing specialized accreditation training to</p> <p>10 assist our personnel seeking to achieve the</p> <p>11 professional engineer and professional geologist</p> <p>12 designations. These initiatives help develop and</p> <p>13 retain more of our high achieving individuals.</p> <p>14 In FY 2021, 12 individuals took advantage of the</p> <p>15 opportunity and enrolled. That program will</p> <p>16 continue in FY 2022.</p> <p>17 In FY 2021, we introduced to you</p> <p>18 four personnel who earned PE accreditation.</p> <p>19 Today I am pleased to recognize another</p> <p>20 individual who has gone through the rigorous</p> <p>21 steps that are required here and throughout the</p> <p>22 nation to earn the professional engineer</p> <p>23 designation.</p> <p>24 Richard Jannett, where are you?</p> <p>25 There you are. Stand up. Stand up. I don't</p>	<p>1 to track its results, which is a necessary</p> <p>2 activity if we are to continue being a high</p> <p>3 performing organization. The most recent</p> <p>4 dashboard updates show the Department continues</p> <p>5 to beat national averages.</p> <p>6 Finally, innovation is an important</p> <p>7 objective within the goal of achieving a high</p> <p>8 performing work environment. As is typical,</p> <p>9 innovative ideas generated in FY '21 led to</p> <p>10 tangible, concrete objectives for FY '22. For</p> <p>11 example, innovation led to new objectives in:</p> <p>12 Video education for regulated industries on the</p> <p>13 most common compliance problems and how to</p> <p>14 correct them, developing formal agreements with</p> <p>15 publicly owned solid waste facilities and private</p> <p>16 industry to create a scrap tire processing</p> <p>17 network to increase the beneficial reuse of scrap</p> <p>18 tire materials in the state, development of a</p> <p>19 comprehensive anti-litter program that includes</p> <p>20 multiple educational tools and new sources of</p> <p>21 funding for litter removal technology, and</p> <p>22 creating a mobile classroom to provide</p> <p>23 environmental education especially in minority</p> <p>24 and low income areas.</p> <p>25 Innovative ideas in FY '22 will no</p>

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 18..21

Page 18	Page 20
<p>1 doubt lead to new objectives for FY 2023. 2 Maintaining a high performance 3 organization requires continual improvement. 4 Many of the objectives in the high performing 5 work environment goal, which include providing 6 financial, physical, and human resources, using 7 data-driven performance measures and, promoting 8 innovation, are ongoing endeavors that continue 9 to move us forward but, by their nature, are not 10 ever fully completed. For that reason, a number 11 of the objectives for FY '22 within this broad 12 goal remain the same as they were in FY 2021. 13 The third broad goal is credible 14 relationships with external stakeholders. 15 Objectives to achieve this Operating Plan goal 16 include: Engaging at least twice per year with 17 all interested regulated industry groups, as well 18 as meetings with elected officials, state 19 agencies, civic organizations and any group or 20 individual interested in working with the 21 Department on environmental issues. That 22 objective was achieved in FY 2021 and continues 23 to -- will continue to be an objective for FY 24 2022. 25 We plan to continue engaging with</p>	<p>1 information, and eComplaint applications 2 available on our website to help citizens access 3 information about their specific geographic areas 4 of interest and, if needed, to voice their 5 concerns. 6 In FY 2021, the Department expanded 7 live streaming Commission meetings and rulemaking 8 hearings on our website. In FY 2022, we will be 9 looking for additional opportunities to connect 10 with the public through this means. 11 Also in FY 2021, the Department 12 began an important effort to upgrade our website. 13 The objective is to make the website more user 14 friendly. This will require more than a single 15 year to accomplish. 16 During the last 18 months, we have 17 been working with outside experts to improve 18 communication with the public. That effort is 19 showing results and will continue to be a 20 priority in the FY 2022 Operating Plan. 21 A few of the other objectives met in 22 FY 2021, some of which will be ongoing in FY '22, 23 include: Expanding geographic information system 24 (GIS) tools to help the public obtain information 25 on their specific geographic point of interest;</p>
Page 19	Page 21
<p>1 specific community stakeholder groups, including 2 low income, minority, and disadvantaged 3 communities. 4 The FY 2021 Plan called for formal 5 Environmental Justice training for all ADEM 6 personnel, and that was accomplished. All ADEM 7 employees were also trained in diversity, equity 8 and inclusion. A detailed update on the 9 Department's Environmental Justice and related 10 activities was presented in the August Commission 11 meeting. 12 To help the public hold the 13 Department accountable in these endeavors, we 14 document many of ADEM's outreach activities to 15 disadvantaged communities in the publication 16 entitled "Community Engagement" shown on the 17 screen and available on our website. An 18 ongoing objective is to regularly update the 19 publication to include new and 20 expanded initiatives. 21 The FY '22 Operating Plan continues 22 objectives to build credible relationships with 23 outside stakeholders utilizing the Internet by: 24 Encouraging the public to use the eMaps, eFile, 25 "What's Happening in Your County", Water Quality</p>	<p>1 expanding environmental education initiatives to 2 include all grades, K through 12; implementing 3 lead testing of drinking fixtures at all Alabama 4 public schools, day cares, and pre-K facilities; 5 and mandatory PFAS testing at all public drinking 6 water systems. 7 Altogether, the goal of credible 8 relationships with external stakeholders includes 9 43 discrete objectives set out in our FY '22 10 Operating Plan. 11 The fourth and final ADEM Operating 12 Plan goal is efficient and effective departmental 13 operations. This is a critical element in the 14 Department's efforts to provide high quality, 15 cost effective services to Alabama citizens. 16 A major objective under this goal is 17 to meet or exceed our detailed annual work plan 18 commitments with EPA. Specific work plans are 19 negotiated with EPA for the NPDES Water program, 20 the Drinking Water program under the Safe 21 Drinking Water Act, the Air Program under the 22 Clean Air Act, and the Hazardous Waste program 23 under the Resource Conservation and Recovery Act. 24 The Department met all work plan 25 commitments in FY '21, despite the COVID-19</p>

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 22..25

<p style="text-align: right;">Page 22</p> <p>1 pandemic. Meeting or exceeding the EPA work plan 2 commitments continues to be an objective in the 3 FY 2022 Plan.</p> <p>4 For more than a decade, ADEM has 5 invested considerable resources in electronic 6 tools to promote public outreach and improve the 7 efficiency of our day-to-day work output. That 8 investment in automation has allowed us to become 9 the lowest cost provider of environmental 10 regulation in the nation while maintaining among 11 the highest quality performance in the nation.</p> <p>12 The high priority multi-year 13 objective for the development and implementation 14 of a new generation of computer software begun in 15 FY 2020 is ongoing and is scheduled to be 16 complete in FY 2023.</p> <p>17 All major internal electronic data 18 entry, reporting, and performance tracking 19 programs will be included. The software systems 20 will be integrated among in-house divisions, 21 external regulated entities, and with EPA 22 systems. All milestones through FY 2021 were met 23 on schedule.</p> <p>24 With greater automation and 25 increasing remote work, maintaining cyber</p>	<p style="text-align: right;">Page 24</p> <p>1 stepped-up State Revolving Fund loan marketing 2 program to help address deteriorating water and 3 wastewater infrastructure, especially in 4 disadvantaged and small communities.</p> <p>5 Some of the new FY '22 objectives 6 for efficient and effective Departmental 7 operations include: Using established milestones 8 to implement the new AEPACS system for the CAFO 9 program and Operator Certification; developing 10 additional regulated industry eCompliance tools, 11 reviewing the recycling program for possible 12 increases in effectiveness; and, installing a 13 Drinking Water Watch public interface on our 14 website.</p> <p>15 Altogether, the goal of efficient 16 and effective Departmental operations includes 33 17 individual objectives set out in the FY 2022 18 Operating Plan.</p> <p>19 Additional information on progress 20 in meeting the 101 objectives in our FY 2021 21 Operating Plan is available in the six ADEM 22 Update reports mentioned earlier that were 23 preparing during FY '21. Once again, these are 24 available on the ADEM website.</p> <p>25 You received copies of the FY '22</p>
<p style="text-align: right;">Page 23</p> <p>1 security measures, including secure communication 2 and data storage, as well as overall system 3 backup, are important ongoing objectives in the 4 Operating Plan.</p> <p>5 Other objectives under the Efficient 6 and Effective Departmental Operations goal 7 completed in FY 2021 include: Planned 8 replacement of IT data storage and server 9 equipment; implementation of the Alabama 10 Environmental Permitting and Compliance System, 11 known as AEPACS, for the NPDES Water program and 12 the Underground Storage Tanks program; initial 13 evaluation of the possible use of drone 14 technology was completed; and, we developed a 15 certification database for tracking air 16 monitoring calibration gases.</p> <p>17 Objectives from FY 2021 that will 18 continue to FY '22 include: Regular formal and 19 informal internal communication; implementation 20 of the AEPACS conversion for Solid Waste and 21 other Land Division programs and the Air program; 22 we will continue to initiate updates to ADEM 23 rules and to conform to the federal rules, to 24 rationalize them when needed, and to improve 25 regulatory oversight; and, we will continue the</p>	<p style="text-align: right;">Page 25</p> <p>1 Departmental Operating Plan with its 105 2 individual objectives. Additional copies are on 3 the table outside the meeting room for others who 4 may be interested.</p> <p>5 While development of the 6 Department's Operating Plan is an annual 7 activity, many of the initiatives focus on 8 positioning the Department to be a high achieving 9 organization for the long term. That long-term 10 focus involves developing our future leaders 11 through education and recognizing their 12 accomplishments; establishing a routine of 13 regularly measuring performance; embracing 14 innovation, including modern leading-edge 15 automation to allow high performance, despite 16 extremely low funding; building lasting 17 relationships with various stakeholder groups; 18 and providing the physical facilities and the 19 other tools necessary to accomplish the 20 Department's mission.</p> <p>21 Like FY 2020, FY 2021 was a 22 challenging year because of COVID-19; however, it 23 was also a successful year. The FY '22 Operating 24 Plan undertakings are ambitious. We are 25 committed to succeeding again in FY 2022.</p>

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 26..29

Page 26	Page 28
<p>1 That completes today's report. If 2 you have any questions, I will be pleased to try 3 to answer them. 4 MR. WALTERS: Any questions for 5 our Director? 6 (No response.) 7 MR. WALTERS: Thank you, sir, 8 for your report. 9 MR. LeFLEUR: Thank you. 10 MR. WALTERS: The next item on 11 the agenda is the report from the Commission 12 Chair. I don't have any prepared report. I 13 didn't know I was going to be Commission Chair. 14 In any event, I will acknowledge that I 15 appreciate the honor bestowed upon me and will do 16 my best to serve the Commission well in the 17 coming year. 18 The next item on our agenda is the 19 report and recommendation from the Personnel 20 Committee on the ADEM Director Job Performance 21 Evaluation. I chaired that Committee, so I will 22 give the report. 23 We met this morning. Committee 24 members present were Ruby Perry and myself. 25 Kevin McKinstry was not available. But we</p>	<p>1 MR. WALTERS: I call for the 2 question. All those in favor, signify by raising 3 your right hand. 4 (All Commission members affirm.) 5 MR. WALTERS: Any opposed, like 6 sign. 7 (No response.) 8 MR. WALTERS: Motion carries. 9 Director, I will set up a time and 10 we will go over the review. 11 Next item on the agenda is item 12 number 6, the consideration of proposed 13 amendments to ADEM Administrative Code Division 14 335-3, Air Pollution Control Program regulations. 15 Before we move on to it, I just 16 recalled I have another item that I omitted. 17 Excuse me. I apologize. 18 Still acting as Personnel Committee 19 Chair, there is another item that we discussed 20 that we took action on at the Personnel Committee 21 that I need to present to the Commission. 22 Two years ago, in fact, we discussed 23 the need, in our opinion as the Personnel 24 Committee, to look into broadening the salary 25 range for the ADEM Director, with the expectation</p>
Page 27	Page 29
<p>1 discussed the Director's comments that we 2 received and offered the following report and 3 recommendation for consideration for adoption by 4 the Commission. 5 That is, first, to retain Lance 6 LeFleur as our Director for the coming year and 7 recommend that the Commission authorize the 8 Personnel Committee Chair to meet with Director 9 LeFleur regarding the Compilation of Written 10 Comments for ADEM Director Job Performance 11 Evaluation and to execute the Verification of 12 Understanding between the Commission and the 13 Director regarding the evaluation. 14 So I offer that as the 15 recommendation to the Commission for adoption. 16 So I entertain a motion regarding 17 the recommendation to the Personnel Committee. 18 DR. PERRY: Mr. Chair, I move to 19 adopt the recommendations of the Personnel 20 Committee. 21 MR. BROWN: Second. 22 MR. WALTERS: We have a motion 23 and a second regarding the motion. 24 Any discussion? 25 (No response.)</p>	<p>1 that in the future we will be pursuing a 2 replacement. And so as a result of that 3 investigation, we, as a Committee, are 4 recommending to the Commission that the 5 Commission authorize the Chair to submit a letter 6 to the Personnel Board and to the Finance 7 Director recommending that we change the ADEM 8 Director position to a salary grade of 91. 9 So I will offer that as a 10 recommendation of the Personnel Committee to the 11 Commission for consideration. 12 And do I have a motion? 13 MR. BROWN: So moved. 14 DR. PERRY: Second. 15 MR. WALTERS: I have a motion 16 and a second. 17 Any further discussion? 18 (No response.) 19 MR. WALTERS: All those in 20 favor, signify by raising your right hand. 21 (All Commission members affirm.) 22 MR. WALTERS: Any opposed, like 23 sign. 24 (No response.) 25 MR. WALTERS: Thank you. Motion</p>

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 30..33

Page 30	Page 32
<p>1 carries.</p> <p>2 Now we move on to agenda item number</p> <p>3 6, which is the consideration of proposed</p> <p>4 amendments to ADEM Administrative Code Division</p> <p>5 335-3, Air Pollution Control Program regulations.</p> <p>6 The Commission will now consider the proposed</p> <p>7 amendments to ADEM Administrative Code Division</p> <p>8 335-3, Air Pollution Control Program regulations,</p> <p>9 Rules 335-3-8-.72, 335-3-10-.01, 335-3-10-.02,</p> <p>10 335-3-10-.03, 335-11-.06, 335-3-11-.07, and</p> <p>11 Appendix C, and to add rules 335-3-19-.01 through</p> <p>12 335-3-19-.05. I hope I said all that right.</p> <p>13 I will now call on the Department</p> <p>14 for comments.</p> <p>15 MR. GORE: All right. Thank</p> <p>16 you, Mr. Chair, ladies and gentlemen. My name is</p> <p>17 Ron Gore. I'm with the Air Division. And that</p> <p>18 sounds like a lot, but it's really not.</p> <p>19 I'm asking that you adopt changes to</p> <p>20 the Air regulations in three areas. First, and</p> <p>21 the most voluminous one, is to catch us up with</p> <p>22 some EPA rules that we adopt by reference every</p> <p>23 year or two -- and it's been about two years</p> <p>24 because of you know what -- to ask that you make</p> <p>25 a change to our Nitrogen Oxide SIP Trading</p>	<p>1 (No response.)</p> <p>2 MR. WALTERS: I now call for the</p> <p>3 question. All those in favor of the motion,</p> <p>4 signify by raising your right hand.</p> <p>5 (All Commission members affirm.)</p> <p>6 MR. WALTERS: Any opposed, like</p> <p>7 sign.</p> <p>8 (No response.)</p> <p>9 MR. WALTERS: Motion carries.</p> <p>10 MR. GORE: Thank you.</p> <p>11 MR. WALTERS: Next item on our</p> <p>12 agenda is item number 7, which is the</p> <p>13 consideration of proposed amendments to ADEM</p> <p>14 Administrative Code Division 335-13, which is the</p> <p>15 Solid Waste Program regulations.</p> <p>16 The Commission will consider the</p> <p>17 proposed amendments to ADEM Administrative Code</p> <p>18 Division 335-13, Solid Waste Program regulations.</p> <p>19 And I will call on the Department</p> <p>20 for comments.</p> <p>21 MR. COBB: Thank you,</p> <p>22 Mr. Chairman, and good morning, Commissioners.</p> <p>23 I'm Stephen Cobb, Chief of the Land Division.</p> <p>24 And I'm here today to recommend that</p> <p>25 the Commission adopt amendments to the</p>
Page 31	Page 33
<p>1 Program to correct a Scrivener's error and some</p> <p>2 rules you have already adopted. And, last, to</p> <p>3 add some rules regarding gases from existing</p> <p>4 municipal waste landfills to regulate the</p> <p>5 emissions from those.</p> <p>6 We held a public comment period,</p> <p>7 which began on July 26th, ended September 10th,</p> <p>8 held a public hearing on September 8th. The only</p> <p>9 comments we received were from EPA, and they were</p> <p>10 largely formatting-type issues, nothing really</p> <p>11 substantive. Those are then explained in your</p> <p>12 package.</p> <p>13 And pending any questions, I'd like</p> <p>14 to ask that you-all adopt these changes in these</p> <p>15 three areas.</p> <p>16 MR. WALTERS: I will now</p> <p>17 entertain a motion from the Commission regarding</p> <p>18 proposed amendments to Air Pollution Control</p> <p>19 Program regulations.</p> <p>20 MS. MERRITT: I move that we</p> <p>21 adopt the proposed amendments.</p> <p>22 DR. MILLER: Second.</p> <p>23 MR. WALTERS: I have a motion</p> <p>24 and a second.</p> <p>25 Any discussion regarding the motion?</p>	<p>1 Department's Division 13 Solid Waste Program</p> <p>2 regulations. These amendments propose changes to</p> <p>3 Chapters 1, 4, 5, 8, 14 and 15 of Division 13.</p> <p>4 And these revisions are being proposed to ensure</p> <p>5 consistency with state and federal statutes to</p> <p>6 provide clarification of state requirements for</p> <p>7 the management of solid waste.</p> <p>8 The changes include updated language</p> <p>9 to incorporate recent statutory revisions related</p> <p>10 to alternative cover material; changes to the</p> <p>11 permit modification process to provide greater</p> <p>12 public participation for certain types of</p> <p>13 modifications; and minor technical revisions to</p> <p>14 clarify certain regulatory requirements.</p> <p>15 And, lastly, the provisions for</p> <p>16 obtaining a permit for landfills, composting</p> <p>17 facilities, and coal combustion residual</p> <p>18 facilities were relocated to Chapter 5 to provide</p> <p>19 a single location for all permitting</p> <p>20 requirements.</p> <p>21 The proposed revisions were the</p> <p>22 subject of a public comment period, which ran</p> <p>23 from July 18 to September 7th, and a public</p> <p>24 hearing was held at the Department on September</p> <p>25 7th.</p>

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 34..37

Page 34	Page 36
<p>1 No oral comments were received at 2 the hearing; however, written comments were 3 received during the comment period and are 4 addressed in the reconciliation statement. This 5 is included as part of the rulemaking package. 6 The revised regulations are 7 presented today for your consideration, and we 8 ask that you adopt the proposed changes to 9 Division 13. I will be happy to answer any 10 questions that you might have. 11 MR. WALTERS: Any questions? 12 (No response.) 13 MR. WALTERS: I will now 14 entertain a motion regarding the proposed 15 amendments to the Solid Waste Program 16 regulations. 17 DR. MILLER: I move we adopt the 18 proposed amendments. 19 DR. PERRY: Second. 20 MR. WALTERS: I have a motion 21 and a second. 22 Any discussion? 23 (No response.) 24 MR. WALTERS: I now call for the 25 question. All those in favor of the motion as</p>	<p>1 objection to the motion for stay and the 2 intervenor, Creekwood Resources, LLC, filed a 3 response and an opposition to the motion for 4 stay. 5 I will first entertain a motion 6 regarding the granting or denying the 7 petitioner's request for oral argument on the 8 motion for stay. 9 DR. MILLER: I move that we 10 grant petitioner's request with a time limit. 11 MR. WALTERS: I have a motion. 12 DR. PERRY: Second. 13 MR. WALTERS: I have a motion 14 and a second that we grant the petitioner's 15 request for oral argument with a time limit. 16 Any further discussion? 17 DR. MILLER: I suggest that we 18 consider 7 to 10 minutes, whichever one the 19 Commission feels would be adequate, on the time 20 limitation. 21 MR. WALTERS: Okay. We have a 22 motion and a second, and we are recommending no 23 more than 10 minutes on the oral argument. 24 All those in favor of the motion, 25 signify by raising your right hand.</p>
Page 35	Page 37
<p>1 presented, please signify by raising your right 2 hand. 3 (All Commission members affirm.) 4 MR. WALTERS: Any opposed, like 5 sign. 6 (No response.) 7 MR. WALTERS: Motion carries. 8 MR. COBB: Thank you, Mr. Chair. 9 MR. WALTERS: Agenda item number 10 8 is Lee County Commission versus ADEM, EMC 11 Docket No. 21-05. This is an NPDES-related 12 matter. 13 This agenda item pertains to the Lee 14 County Commission versus ADEM, EMC Docket No. 15 21-05, in which petitioner, Lee County 16 Commission, appealed the Department's issuance of 17 NPDES Permit AL0084191 on August 30, 2021, to 18 Creekwood Resources, LLC, Shady Grove Quarry, 19 Opelika, Alabama. 20 The petitioner also filed a motion 21 for a stay of this permit, a request for oral 22 argument on the motion for stay, a brief in 23 support of the motion for stay, and a corrected 24 copy of their brief. 25 In addition, the Department filed an</p>	<p>1 (All Commission members affirm.) 2 MR. WALTERS: Any opposed, like 3 sign. 4 (No response.) 5 MR. WALTERS: Motion carries. 6 Okay. So I guess first we're going 7 to hear from the petitioner's attorney. 8 MR. DAVIS: Good morning, 9 Commissioners. My name is Richard Davis. I'm 10 with the firm of Starnes, Davis, Florie. I have 11 the privilege of representing the Lee County 12 Commission in this particular matter. 13 I'd like to quickly introduce to you 14 Judge Bill English, who is the Chairman of the 15 Commission; Stan Martin, who is the county 16 attorney; and my law partner, Taylor Novak, who 17 is working with me on the case. 18 We're well aware of the burden that 19 a petitioner must carry in requesting a stay. So 20 what I'd like to offer you here, in recognition 21 of the time limit, is a series of points in which 22 we think support the granting of a stay in this 23 particular case. 24 The Commission is well aware of the 25 statutory responsibilities. These include:</p>

<p style="text-align: right;">Page 38</p> <p>1 Protecting resources and managing them in a 2 manner that is compatible with the environment 3 and the health and welfare of the citizenry. And 4 that is in Alabama Code Section 22 22 A 2, where 5 the legislative intent for the Commission, and 6 ultimately the Department, are set forth. So 7 those things are important.</p> <p>8 It's also important to recognize 9 that we are not here on a not-in-my-back yard 10 case. This is not a NIMBY case. This is a case 11 in which the Commission, through various statutes 12 and legal duties, has an obligation to try and 13 protect its citizenry and Halawakee Creek, which 14 is a beautiful free-flowing stream and an 15 important source of water to the county in a 16 unique ecosystem.</p> <p>17 When you quarry property, as you may 18 be aware, you have to remove all natural 19 vegetation; you have to remove the topsoil; you 20 have to remove the subsoil to get to the granite 21 underneath. Then you have to penetrate the earth 22 at some level and go down. And when you dig a 23 hole in a fractured geological environment, water 24 is going to run into this pit. The pit will have 25 to be dewatered.</p>	<p style="text-align: right;">Page 40</p> <p>1 stay. And one of the reasons to enter the stay 2 here is: In requiring a permit, the Department 3 has recognized that there is an impact on the 4 quarry.</p> <p>5 And in the Water Pollution Control 6 Act, which you know is 22 22 1, in the definition 7 of Waters, this impacts surface and groundwater. 8 And those impacts will come as a result of 9 industrial waste being deposited into Halawakee 10 Creek, liquid or other waste from development of 11 natural resources, which is quarrying. You've 12 got to pierce the earth, dig the hole, to get to 13 the ground.</p> <p>14 Now, 22 22 2 also recognizes that 15 the pollution of the waters of the state 16 constitute, I quote, a menace to public health 17 and welfare, creates public nuisances, is harmful 18 to wildlife, fish, and aquatic life.</p> <p>19 These things may or may not happen, 20 but I have not been able to find anything that 21 says on a motion to stay that you try the merits 22 of your case. That's why there is a proceeding 23 in front of a hearing officer.</p> <p>24 So what we're asking for you to do 25 is to stay proceedings that may cause</p>
<p style="text-align: right;">Page 39</p> <p>1 And one of the substantive questions 2 here, that no one can answer yet based on the 3 administrative record that is already in front of 4 the Commission and has been reviewed by ADEM, is: 5 What is the impact of that and the other 6 quarrying activities on Halawakee Creek?</p> <p>7 This quarrying activity will 8 necessarily impact surface water. That's why 9 there's a permit. The permit is effectively, in 10 this context, a license to discharge water or 11 pollution, unless it's pure H2O, into the creek.</p> <p>12 It also impacts groundwater. It's 13 the absence of evidence in the administrative 14 record that we think is so important. It is not 15 enough in a situation like this simply to take 16 what's presented by an applicant, make a visit or 17 two to a site, and see what boxes have been 18 checked. That may be the narrow legal duty that 19 is in front of the Department. And we all know 20 the Department exercises good faith in trying to 21 do its job. That's not a question here either. 22 The question is: Is it enough and is there a 23 basis for more to be done? And we would suggest 24 to you that there is.</p> <p>25 You have the discretion to enter a</p>	<p style="text-align: right;">Page 41</p> <p>1 irreversible harm on that property and to 2 Halawakee Creek for such time as proceeding that 3 can get into the details and the actual merits of 4 the issuance of the permit or the lack of merits 5 can be sorted out.</p> <p>6 It is a part of the Water Pollution 7 Act also that declares any and all pollution is 8 declared to be a public nuisance.</p> <p>9 It is not appropriate in our view, 10 and we respectfully submit to the Commission, to 11 require all of the evidence up front from a 12 petitioner, such as a county commission trying to 13 exercise role as trustee for its citizens, the 14 streams and other things under its jurisdiction, 15 and to require all of that to be up front when 16 the Department itself is relying on information 17 from the applicant. The applicant necessarily 18 has a head start. The Department has only those 19 resources that it has to look at these things.</p> <p>20 And we're simply suggesting that in 21 this case it would be appropriate to pause, to 22 hit the pause button, and then to let the 23 proceeding take place to vet the permit and all 24 the things that underlie in a substantive way to 25 prevent irreversible harm.</p>

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 42..45

Page 42	Page 44
<p>1 Now, as a final point, we also 2 recognize that you have to weigh the adverse 3 impact to the permittee, to the holder of the 4 permit, in this case Creekwood. And I would ask 5 you simply to consider this: The damage to the 6 ecosystem is largely irreversible. And if these 7 activities result in dewatering of Halawakee 8 Creek or other damage to it, that's not going to 9 get fixed.</p> <p>10 Now, in Mr. Major's affidavit that 11 has been submitted for your consideration, there 12 is an unsubstantiated, but large, \$5- to \$6 13 million figure that supposedly is the 14 monetization of the harm that would occur at 15 Creekwood. There's no calculations or anything 16 that we can see into that, so we don't know 17 whether that's correct or not and neither does 18 the Commission.</p> <p>19 There's also a representation that 20 there's a \$300,000 loss to the community, 21 including Lee County, the very county that's 22 asking you for a stay, in terms of tax revenue. 23 \$5.6 million or \$5- to \$6 million, \$300,000. The 24 pollution control product on ADEM's Form 313 that 25 is in front of the Commission totals \$23,677</p>	<p>1 this case. And with me I have Taylor Johnson out 2 of our Mobile office and Jeff Major back there. 3 He's the managing member of Creekwood Resources.</p> <p>4 I do want to point out we joined in 5 ADEM's argument that they stated in their brief. 6 And I'm going to try not to repeat anything that 7 really ADEM said or we restate what we said in 8 our brief, but I do want to highlight some of the 9 important points that I feel that need to be made 10 today.</p> <p>11 The relief Lee County Commission is 12 seeking from this Commission in asking for a stay 13 of Creekwood's lawfully issued NPDES permit is 14 drastic and extraordinary. Which is why this 15 Commission's rule is very clear about the high 16 burden that Lee County Commission must meet to 17 obtain that relief.</p> <p>18 The rule says no stay shall be 19 granted unless all four criteria are shown by the 20 moving party. Lee County Commission has not met its 21 burden with regard to any of the four criteria 22 and is, therefore, not entitled to the 23 extraordinary relief it seeks.</p> <p>24 First, Lee County Commission has not 25 demonstrated to this Commission a substantial</p>
Page 43	Page 45
<p>1 annually.</p> <p>2 We believe that it would be 3 appropriate, among other things, strictly within 4 ADEM's jurisdiction -- because there is, in fact, 5 a companion piece of litigation -- to let us 6 address those issues and see if there is a reason 7 for this permit to have been issued and for us to 8 have the opportunity to show what we believe that 9 we'll be able to show, which is that there is a 10 basis for a stay.</p> <p>11 We can't unring the bell if there's 12 harm to this ecosystem. We hope that you will 13 consider that stay. And I appreciate your time. 14 I will reserve my last 40 seconds, if it's 15 appropriate.</p> <p>16 MR. WALTERS: Thank you for 17 respecting the time limit.</p> <p>18 We will now hear from the 19 intervenor's attorney, Creekwood Resources.</p> <p>20 MS. ESPY: Make sure I've got 21 all my papers straight.</p> <p>22 Good morning. I'm Schuyler Espy, 23 and I am with the law firm of Burr and Foreman 24 here in Montgomery. And I'm here on behalf of 25 Creekwood Resources, LLC, permittee/intervenor in</p>	<p>1 likelihood of success on the merits of this 2 appeal. Although this appeal concerns 3 Creekwood's NPDES permit, many of petitioner's 4 alleged grounds for disapproval of the permit 5 fail because they are beyond the scope of ADEM's 6 NPDES authority -- or I'm sorry -- permitting 7 program and some are even beyond the scope of 8 ADEM's general regulatory authority.</p> <p>9 I know he mentioned groundwater. 10 This permit authorizes no discharges to 11 groundwater.</p> <p>12 Lee County Commission's allegations 13 regarding theoretical threats to surface water 14 quality are also not likely to succeed because 15 ADEM issued this permit in accordance with 16 applicable rules and regulations. And in doing 17 so, they determined that compliance with the 18 permit will ensure the protection of the 19 (inaudible) water quality. ADEM is afforded 20 deference in light of its special competence in 21 this area.</p> <p>22 Furthermore, Lee County Commission 23 has raised no new alleged concerns, but has 24 simply repeated matters that are already 25 presented to ADEM and which ADEM considered prior</p>

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 46..49

Page 46	Page 48
<p>1 to issuing the permit.</p> <p>2 For these reasons, Lee County</p> <p>3 Commission has not met its burden with regard to</p> <p>4 the first criteria. And although their failure</p> <p>5 to meet the first criteria effectively ends the</p> <p>6 analysis because they have to show all four, Lee</p> <p>7 County Commission has also not shown that it</p> <p>8 would suffer any irreparable harm from the denial</p> <p>9 of this request.</p> <p>10 The motion to stay contains only</p> <p>11 very generalized concerns about water quality in</p> <p>12 Lee County and it does not identify any specific</p> <p>13 injury to Lee County Commission. Nonetheless,</p> <p>14 the permit contains extensive safeguards to</p> <p>15 ensure the protection of water quality.</p> <p>16 Also, Lee County Commission would</p> <p>17 not be harmed by a denial here because, as you</p> <p>18 mentioned, this is not the only forum where it</p> <p>19 may seek a stay regarding Creekwood's mining</p> <p>20 activities. Lee County Commission has an</p> <p>21 opportunity to seek the same relief through its</p> <p>22 concurrently filed lawsuit, which involves</p> <p>23 established court procedures with a full-blown</p> <p>24 evidentiary hearing, expeditious appeal rights</p> <p>25 and bond requirements. The court proceeding is a</p>	<p>1 To conclude, Lee County Commission</p> <p>2 has failed to meet its high burden, as</p> <p>3 established by this Commission's rules, and its</p> <p>4 motion for stay is due to be denied. Thank you.</p> <p>5 MR. WALTERS: Questions?</p> <p>6 (No response.)</p> <p>7 MR. WALTERS: Okay. Thank you.</p> <p>8 We will now hear from the Department's attorney.</p> <p>9 MS. BLANTON: Good morning,</p> <p>10 Chair Walters and Commissioners. I'm Carrie</p> <p>11 Blanton and I represent the Department. Thank</p> <p>12 you for giving me the opportunity to speak with</p> <p>13 you this morning.</p> <p>14 This Commission cannot grant a stay</p> <p>15 unless Lee County satisfies four prerequisites.</p> <p>16 Lee County must show there is a substantial</p> <p>17 likelihood it will prevail on the merits, that it</p> <p>18 will suffer irreparable harm if the stay is not</p> <p>19 granted, that the benefits of the stay will</p> <p>20 outweigh the harm it will cause the opposing</p> <p>21 party, and that issuance of the stay will not</p> <p>22 harm the public interest.</p> <p>23 First and foremost, to grant the</p> <p>24 stay, this Commission must be convinced that</p> <p>25 petitioner will likely win its permit appeal. In</p>
Page 47	Page 49
<p>1 better forum for addressing whether these quarry</p> <p>2 operations should be stopped, considering the</p> <p>3 grounds asserted.</p> <p>4 Regarding the third criteria, Lee</p> <p>5 County Commission has not shown it would actually</p> <p>6 benefit from a stay of the operation of</p> <p>7 Creekwood's permit, but the harm that would be</p> <p>8 imposed upon Creekwood is very real and</p> <p>9 significant.</p> <p>10 Creekwood estimates that a six-month</p> <p>11 delay in operations would lead to increased cost</p> <p>12 and lost revenue of approximately \$5- to \$6</p> <p>13 million. And I should also note, as he</p> <p>14 mentioned, that Creekwood estimates a six-month</p> <p>15 stay would result in a loss in generation of</p> <p>16 approximately \$310,000 in sales tax revenue to</p> <p>17 Lee County and the State of Alabama.</p> <p>18 And, finally, concerning the fourth</p> <p>19 criteria, the public interest is best served by a</p> <p>20 denial of Lee County Commission's motion because</p> <p>21 Lee County Commission has not put forth the</p> <p>22 required evidence to justify a stay. And a</p> <p>23 denial by this Commission will affirm and protect</p> <p>24 the integrity of the already extensive rules and</p> <p>25 administrative process.</p>	<p>1 its request for hearing, Lee County has asked for</p> <p>2 this permit to be disapproved. Therefore, you</p> <p>3 must believe there is a substantial likelihood</p> <p>4 that the permit issued by ADEM is invalid.</p> <p>5 Because Lee County has not met this high burden,</p> <p>6 it would be improper for this Commission to grant</p> <p>7 a stay.</p> <p>8 ADEM developed Creekwood's permit to</p> <p>9 be protective of water quality, human health, and</p> <p>10 the environment in accord with all applicable</p> <p>11 laws and regulations. Its terms and conditions</p> <p>12 are consistent with, and in some cases more</p> <p>13 stringent than, the terms and conditions ADEM</p> <p>14 imposes on other similar quarries in Alabama.</p> <p>15 The Department submitted a brief to</p> <p>16 you outlining its responses to each of</p> <p>17 petitioner's allegations of error. A quick</p> <p>18 review of the Department's defenses should make</p> <p>19 it abundantly clear that this is not a case where</p> <p>20 Lee County can show it has a substantial</p> <p>21 likelihood of success. As a matter of fact, it</p> <p>22 will show you that the majority of Lee County's</p> <p>23 allegations are outside the scope of what may be</p> <p>24 considered in a permit appeal all together.</p> <p>25 The fact that Lee County Commission</p>

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 50..53

Page 50	Page 51
<p>1 has concerns about a quarry in its neighborhood 2 does not mean that this permit is invalid, nor 3 does it mean that Lee County does not have valid 4 concerns. 5 While nuisance, traffic safety, and 6 community character are all legitimate issues to 7 be considered, those issues have nothing to do 8 with the validity of this permit. Concerns the 9 quarry may interfere with real property rights, 10 of use and enjoyment, or that it will constitute 11 a public nuisance may very well be reasonable 12 concerns. But those concerns did rise to causes 13 of action that are within the exclusive province 14 of the circuit courts. As a matter of fact, Lee 15 County filed a lawsuit in circuit court the very 16 same day it filed this permit appeal. 17 It's not unreasonable, arbitrary, or 18 capricious for ADEM to refuse to consider land 19 use issues and impacts by saying those are issues 20 for local zoning authorities or judicial 21 remedies. Quite simply, because we don't have 22 the legal authority to consider them. 23 As such, this Commission has 24 consistently declined to assert jurisdiction over 25 causes of action related to real property rights.</p>	<p>1 without disturbing the validity of ADEM's permit. 2 Our rules require Lee County to 3 satisfy four prerequisites for this Commission to 4 grant a stay. The Department urges you to adhere 5 to those rules and preserve the integrity of this 6 Commission's processes. Thank you. 7 MR. WALTERS: Questions? 8 (No response.) 9 MR. WALTERS: Thank you. 10 MR. DAVIS: With the 11 Commission's permission, could I use my 40 12 seconds? 13 MR. WALTERS: Yes, you may. 14 MR. DAVIS: I'm happy to wait 15 for you to restart the clock. 16 MR. WALTERS: Go ahead. We'll 17 track you. 18 MR. DAVIS: Very good. Thank 19 you for letting me have one more shot at this. 20 You can review the request for 21 hearing. It's in front of you. We're not trying 22 to litigate traffic issues. We're not trying to 23 litigate anything outside of ADEM's scope. 24 That's clear. So that part we don't even need to 25 consider.</p>
<p>1 Whether the terms and conditions of the permit 2 issued to Creekwood comply with our statutes and 3 regulations is the only issue up for 4 consideration in a permit appeal. 5 The permit issued to Creekwood 6 authorizes discharges of those pollutants, 7 subject to certain terms and limitations, to 8 surface waters, specifically Halawakee Creek and 9 one of its unnamed tributaries, via three 10 outfalls. This permit does not authorize 11 discharges to groundwater. 12 What's more, the Department does not 13 even regulate flow to surface waters, nor does it 14 regulate the quantity of groundwater withdrawn. 15 Although real property rights and 16 land use issues are outside the scope of this 17 administrative appeal, the Commission's denial of 18 the stay here today, and even ultimately 19 upholding this permit, does not affect the other 20 judicial remedies available to Lee County to 21 address its concerns. Therefore, Lee County 22 cannot claim it will suffer irreparable harm 23 should this Commission deny a stay. 24 The circuit court has the ability to 25 grant a stay prohibiting Creekwood's operation</p>	<p>1 What we're suggesting is if you look 2 at, for example, 22 22 9 of the Water Pollution 3 Control Act, the Commission, as defined in that 4 statute, meaning the Department, has a duty to 5 conduct independently an investigation. This is 6 the subsection 2. There are any number of other 7 references throughout that section of the 8 statute: Duties to investigate, duties to 9 conduct surveys with respect to the waters of the 10 state, and what have you, and declaring a public 11 nuisance. 12 What we're suggesting is those 13 duties are violated if they're not fulfilled in 14 the acceptance of what is being served up by an 15 application without (inaudible) not being done, 16 respectfully. 17 The other thing to keep in mind is 18 all this talk about the surface -- 19 MR. WALTERS: 40 seconds are way 20 gone. 21 MR. BROWN: I'm going to stand 22 up for the lawyers. 23 MR. WALTERS: Okay. Go ahead. 24 MR. DAVIS: So, very quickly, 25 the circuit course case is of no concern to you</p>

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 54..57

Page 54	Page 56
<p>1 either. The fact is it's been removed to federal 2 court by Creekwood. While they may have a legal 3 right to try that (inaudible), what they really 4 don't want is to let the citizens of Lee County 5 or Lee County judges to rule on their case. 6 So we're asking for a stay only in 7 ADEM, only of what's under ADEM's jurisdiction. 8 Thank you. 9 MS. ESPY: Can I also add 10 something? I will be really quick. 11 I do just want to say it's his 12 burden -- it's Lee County Commission's burden to 13 show that they're entitled to the stay, and they 14 have not met that burden. 15 Regarding the court case, yes, it's 16 been removed to federal court. It's the same 17 argument there. They have an opportunity to 18 present a full-blown evidentiary hearing, all 19 witnesses, bond requirements, all that, so... 20 MS. BLANTON: I don't have 21 anything further. 22 MR. WALTERS: Okay. The math in 23 my head on this timer is -- I can't. So, okay, 24 thank you for your presentation. 25 At this time, we will entertain a</p>	<p>1 last three years because action was taken when 2 the trial court ruled one way and everybody 3 proceeded with their plans and then it was 4 reversed by the Supreme Court and it caused, you 5 know, more litigation. 6 So regardless of how this turns out, 7 Mr. Major, it's a risky proposition to move 8 forward with all this on the table. Free legal 9 advice for the day. Sorry. 10 MR. WALTERS: Any other 11 discussion by the Commission? 12 (No response.) 13 MR. WALTERS: Okay. At this 14 time, now I call for the question. All those in 15 favor of the motion as presented, signify by 16 raising your right hand. 17 (All Commission members affirm.) 18 MR. WALTERS: Any opposed, like 19 sign. 20 (No response.) 21 MR. WALTERS: Motion carries as 22 presented. 23 We will move on to agenda item 24 number 9, which is the Black Warrior Riverkeeper, 25 Incorporated, Petitioner, and Alabama Rivers</p>
Page 55	Page 57
<p>1 motion from the Commission regarding the 2 petitioner's motion for stay. 3 MR. MASINGILL: Move to deny the 4 motion for stay. 5 MR. WALTERS: I have a motion. 6 Do I have a second? 7 DR. MILLER: Second. 8 MR. WALTERS: I have a motion 9 and a second to deny the petitioner's motion for 10 stay. 11 Is there any discussion? 12 DR. MILLER: I guess all I would 13 say is that I have empathy for what Lee County is 14 trying to do. But what they're asking us to 15 stay, I don't see any way we could possibly do 16 that because the quarry is not operating -- I 17 mean, I don't see any way to stay based on what 18 they have presented. It doesn't -- to me, it 19 doesn't register as a coherent argument. I mean, 20 I'm sorry, but it doesn't. That's my point. 21 MR. WALTERS: Any other 22 comments? Further discussion? 23 MR. BROWN: No. I guess I was 24 going to say, regardless of how this votes, you 25 know, I'm reminded of defending a company for the</p>	<p>1 Alliance, Intervenor/Petitioner, versus ADEM, EMC 2 Docket No. 20-02. 3 This agenda item is Black Warrior 4 Riverkeeper, Incorporated, Petitioner, and 5 Alabama Rivers Alliance, Intervenor/Petitioner, 6 versus ADEM, EMC Docket No. 20-02, in which the 7 Hearing Officer issued an order and 8 recommendation to the Commission in its appeal of 9 ADEM Administrative Code Chapter 335-13-16, 10 Requirements for Beneficial Use of By-Product 11 Materials for the Purpose of Land Application. 12 The Hearing Officer finds in its 13 Order and Recommendation that the Commission has 14 no jurisdiction over an appeal of the type that 15 petitioners brought in this case, and he 16 recommends that the Commission deny petitioners' 17 appeal. 18 I know the petitioners filed 19 objections to the Hearing Officer Order and 20 recommendation referencing their previous two 21 motions. And the Department filed a response to 22 petitioners' objections to the Hearing Officer's 23 Order and Recommendation and Proposed Order with 24 Alternate Findings of Fact, Conclusions of Law, 25 and Recommendation.</p>

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 58..61

Page 58	Page 60
<p>1 I also note that an untimely request 2 for oral argument was received from the attorney 3 for the petitioner and intervenor, but the 4 Commission may, by its own motion, grant oral 5 argument on issues raised by the objections to 6 the Hearing Officer's Order and Recommendation. 7 If a member of the Commission wants 8 to make a motion to grant oral argument on issues 9 raised by the objections to the Hearing Officer's 10 Order and Recommendation, you may do so. 11 (No response.) 12 MR. WALTERS: Hearing none, then 13 I will move that we entertain a motion from the 14 Commission regarding the Hearing Officer's Order 15 and Recommendation. 16 DR. PERRY: Mr. Chair, I move to 17 grant oral argument. 18 MR. WALTERS: I have a motion to 19 grant oral argument. 20 DR. MILLER: Second. 21 MR. WALTERS: I have a second. 22 Any discussion? 23 (No response.) 24 MR. WALTERS: We have a motion 25 to grant oral argument and a second.</p>	<p>1 different in the relief that we have requested 2 and it's a little bit out of the box. And we 3 understand that, but we still remain firmly 4 convinced that what we have asked the Commission 5 to do is within its authority, as specifically 6 spelled out in the Administrative Code. 7 So a quick bit of background. This 8 proceeding is about land application of 9 industrial by-product materials, which, as 10 you-all may be familiar with, is basically 11 spreading, on farmland, waste materials that 12 contain nutrients that may be beneficial to the 13 soil or to crops. 14 This material also typically 15 contains chemicals and contaminants and pathogens 16 and bacteria and other things that may not be 17 beneficial to the crops or to the land or to 18 anyone else. They create a lot of tremendous 19 odors and nuisances, of that type. They run off 20 in the waterways, despite the best efforts of 21 buffers and regulations that are designed to 22 prevent that. 23 And over the years there have been a 24 tremendous number of complaints from citizens. 25 There have been municipalities that have passed</p>
Page 59	Page 61
<p>1 All those in favor, signify by 2 raising your right hand. 3 (All Commission members affirm.) 4 MR. WALTERS: All those opposed, 5 like sign. 6 MR. BROWN: Is there a request 7 for oral argument on this? 8 DR. MILLER: There was a 9 request, but it came in after the deadline. 10 MR. WALTERS: The Commission has 11 the prerogative to grant -- 12 MR. BROWN: Well, I'm looking in 13 my notebook and I'm, like, where is it. 14 MR. WALTERS: So the motion did 15 carry, I believe, did it not? Couldn't count 16 hands. Okay. 17 So we're going to do a similar time 18 frame then, 10 minutes. I guess we'll hear from 19 the petitioner first. 20 MR. BROCK: Thank you, 21 Mr. Chairman and Commissioners. My name is Barry 22 Brock. I'm with the Southern Environmental Law 23 Center, and we represent the petitioners in this 24 case. 25 Which I understand it's a little bit</p>	<p>1 ordinances to try to control, limit, or ban the 2 process. There have been nuisance lawsuits filed 3 about the process that assert that, in many ways 4 and in the ways that land application is 5 conducted, it constitutes a nuisance, per se. 6 So there is a great deal of public 7 interest. There's a great deal of unrest about 8 this. And, frankly, we feel a lot of cause in 9 people who are very upset about it and don't 10 understand how industry or middlemen are able to 11 drive onto property adjacent to theirs and spray 12 ground waste liquid onto a field next to them, 13 which often drives them from their homes or makes 14 their homes inhabitable for periods of time after 15 it is applied. 16 So the Department stepped in and for 17 the first time last year in 2020 passed 18 regulations to try to regulate this process. And 19 while we applaud the Department for that effort 20 and think that it is appropriate and overdue, in 21 our view there are some serious shortcomings and 22 problems with these regulations. 23 They're all laid out in the brief 24 that we filed, but I really want to narrow it 25 down and focus on one primary thing, which is</p>

Page 62

1 that these regulations lack any numeric limits on
2 pollutants that can be in this by-product
3 material and they lack any concrete written
4 specific standards about treating the material to
5 reduce pathogens, to control odor, and to force
6 the application of the material in a way that
7 would address those things, like tilling it into
8 the soil, things like that.

9 Every other state surrounding
10 Alabama has regulations like that. We're the
11 outlier. And we risk becoming a dumping ground
12 for industry because these regulations don't have
13 those numeric limits and they don't have the
14 pathogen controls.

15 Now, the Department will tell you
16 that the applicants do submit some information
17 about the material and they do review it and they
18 do make an effort to make sure that it's not more
19 harmful than it is beneficial. But without
20 written numeric standards and limits, it becomes
21 an arbitrary process. Some of the applicants
22 submit information; some of them don't. They
23 submit different types of information. It
24 becomes subjective as to what's safe and what's
25 not safe.

Page 63

1 Well, there's a really easy
2 solution. There are federal regulations that
3 apply to biosolids, and other states have adopted
4 those regulations or modified them.

5 Yes?

6 MR. BROWN: This really sounds
7 like something that should be in a petition for
8 rulemaking.

9 MR. BROCK: Okay. And we -- and
10 that was an argument that was part of the case
11 and it was briefed legally. And I can make a
12 legal argument about it if you'd like.

13 But the bottom line -- and that's
14 one thing the Hearing Officer latched on to.

15 But a petition for rulemaking is
16 similar, but it's different. It allows this
17 Commission to amend a regulation. The appeals
18 rules that we're traveling under allow for us to
19 have a hearing, a Hearing Officer, and discovery,
20 and findings, and that's what we did. It allows
21 for a modification of a rule. Now, whether those
22 two terms are the same or mean something
23 different, I don't know.

24 But the way the regulations read to
25 us, either avenue would be an appropriate way to

Page 64

1 try to have a regulation amended or modified.
2 And we argued this issue with the
3 Hearing Officer. And, frankly, no one came up
4 with any case or any prior administrative
5 proceeding or any authority that said through an
6 appeal that you cannot get a modification of a
7 rule.

8 And so we would just argue that the
9 text, that the Administrative Code clearly says
10 that the Commission on this appeal shall enter an
11 appropriate order modifying, approving, or
12 disapproving of the rules. So we're just relying
13 strictly on literally the text of the
14 Administrative Code that says this Commission has
15 the authority to modify. And we believe that it
16 does, and we believe that it should.

17 And that simple modification would
18 be this, directing the Department to modify these
19 regulations to incorporate appropriate numeric
20 limits and standards to control pollutants and
21 pathogens in the material that's in this
22 by-product waste material, just like every other
23 state.

24 Now, we recognize if the Commission
25 were to do so, that it would be subject to notice

Page 65

1 and comment and the normal procedures. And we're
2 not saying that it wouldn't be. But it's similar
3 to sometimes what happens with a permit where
4 there is a direction that the permit needs to be
5 modified, it's modified, it goes back through
6 public comment and those procedures. And so this
7 is similar to that.

8 So you're correct that the Hearing
9 Officer, the basis of his ruling was that the
10 Commission doesn't have jurisdiction to grant the
11 relief we have asked for. And we would submit
12 that that's erroneous because the appeals
13 regulations don't speak of jurisdiction. There
14 are some prerequisites to lodging an appeal, and
15 we complied with them. But there's no
16 jurisdictional requirement, per se, like there
17 would be in a lawsuit. The word "jurisdiction"
18 doesn't appear in the regulations and pertinent
19 part that we're dealing with.

20 So we're in an interesting
21 procedural situation where neither side is
22 recommending that the Commission accept the
23 Hearing Officer's finding. And the Hearing
24 Officer did not make a recommendation about
25 whether the Commission should modify, accept, or

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 66..69

Page 66	Page 68
<p>1 reject the regulations. So petitioners weren't 2 happy with it, ADEM wasn't satisfied with it, and 3 so I guess we're left here with the options of 4 that the Commission can accept our argument and 5 enter an order directing the modification on the 6 basis that we set out -- and the rules require us 7 to set out the proposed modification. We did 8 that. And there are other issues.</p> <p>9 But, again, we would just want to 10 narrow it down and urge the Commission that these 11 regulations would be so much better and so much 12 more robust if it incorporated standards about 13 the other side of the coin.</p> <p>14 You know, the Commission -- the 15 Department is looking at one side of the 16 equation, which is, is this material beneficial, 17 like fertilizer, spreading chicken litter, 18 chicken manure, anything like that. And a lot of 19 this material is food waste by-product that's 20 coming out of chicken processing plants and 21 things like that. And it's nasty material.</p> <p>22 And as we stand here today, no one 23 can, you or me or anyone else, tell exactly 24 what's in it. And that's disturbing to a lot of 25 people. We have a lot of people saying to us,</p>	<p>1 would suggest is the time to do that is now and 2 the place to do that is now and this proceeding 3 is the place to do that.</p> <p>4 And it can be done relatively simply 5 by this Commission issuing an order telling them 6 to modify, to include some limits on what can be 7 in these by-products for the benefit of the 8 environment, for the public, for our waterways. 9 And so that we aren't encouraging or at least 10 tolerating a process that in many instances 11 basically amounts to a nuisance, per se.</p> <p>12 It can't be that this process is 13 regulated properly and acceptable and at the same 14 time it's a nuisance to the public that's driving 15 people from their homes, we would submit.</p> <p>16 So with that, I see my time is up, 17 and I appreciate you giving us the opportunity to 18 be heard on these issues.</p> <p>19 MR. MASINGILL: I have one 20 question, Mr. Brock.</p> <p>21 MR. BROCK: Yes, sir.</p> <p>22 MR. MASINGILL: When the 23 Department adopted the regulations February 14th 24 of 2020, did you participate in that hearing or 25 make comments at that point?</p>
Page 67	Page 69
<p>1 How can I find out what's in this stuff they're 2 spreading next to my property? And the answer is 3 you can't because the regulations don't require 4 that the people spreading it make a written 5 specific disclosure about what's in this 6 by-product material.</p> <p>7 And so the public, I think, feels 8 not satisfied with the explanation that, Well, 9 we're the Department, we're looking at it, we're 10 taking a look at it. Nobody knows exactly on any 11 given lot and no one knows if it's mixed with 12 other waste that comes out of wastewater 13 treatment plants, human waste. There are all 14 kinds of possibilities, PFAS. There's all kind 15 of materials that could be in these by-products.</p> <p>16 And the simple solution would be to 17 order that they at least, at a minimum -- and 18 we're not saying the federal regulations are 19 great or that they cover every kind of 20 contaminant that should be tested for, but 21 they're something and they're a start.</p> <p>22 And the Department has represented 23 in this proceeding that they intend to amend and 24 improve these regulations going forward. And 25 we're encouraged to hear that, too. But what we</p>	<p>1 MR. BROCK: The petitioners did, 2 yes, sir, Black Warrior Riverkeeper.</p> <p>3 MR. MASINGILL: You did make 4 these same --</p> <p>5 MR. BROCK: We did. We 6 submitted comment letters and they were part of 7 ADEM's response to the public comments.</p> <p>8 MR. MASINGILL: Okay.</p> <p>9 DR. MILLER: I would suggest 10 that rather than asking us to tell the Department 11 to make some modifications, which is very 12 nebulous, that you guys submit a petition for 13 rulemaking with the numbers in there that you 14 think are appropriate. I don't see how us 15 telling them to make some modification is going 16 to do anything.</p> <p>17 MR. BROCK: Well, our suggestion 18 is that it would be to then give the 19 responsibility to the Department to determine 20 exactly what the appropriate numbers are. 21 Because I would anticipate if the petitioners 22 tried to supply them that the Department would 23 push back and say it's our job to make that 24 determination, the petitioners can't write the 25 regulations.</p>

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 70..73

Page 70	Page 72
<p>1 DR. MILLER: But it could be a 2 point of discussion between the two. 3 MR. BROCK: Sure, that's fair. 4 But -- and, again, there are alternative methods 5 to get to the same result, we think, and that we 6 shouldn't have to initiate and go through another 7 procedure, having gone through this procedure for 8 the last year. 9 And, frankly, there's been a very 10 collaborative and productive exchange of 11 information between the petitioners and the 12 Department on this, and I think there are a lot 13 of things that we are agreeing about. But maybe 14 our difference is the sense of urgency and the 15 mechanism by which to make some needed changes. 16 Thank you. 17 MR. WALTERS: Any other 18 questions? 19 (No response.) 20 MR. WALTERS: Okay. Next we 21 will hear from the Department. 22 MR. CARTER: Good afternoon. 23 Mr. Chairman, congratulations, by 24 the way, on your promotion today. 25 Members of the Commission, my name</p>	<p>1 these rules. ADEM adopted the beneficial use 2 rules as a reasonable exercise of ADEM's 3 authority, and it was consistent with state and 4 federal law. 5 That's one of the things they say, 6 that these rules aren't good enough because they 7 are inconsistent with state and federal law. 8 Therefore -- they don't say strike them down, 9 which would be the proper thing. If the 10 regulations are inconsistent with state and 11 federal law, they are null, they are void. 12 And in this case, they're not asking 13 for that, they're asking for, They're okay, but 14 let's modify them. But they don't give us any 15 substance to modify. Through a petition for 16 rulemaking would be the proper way to go. 17 The Hearing Officer was correct to 18 recommend that the Commission not disturb the 19 issuance of the beneficial use rules. And, like 20 I said, the Department has provided you with a 21 proposed order approving its adoption of the 22 beneficial use rules and adopting the 23 Department's alternative findings of fact and 24 conclusions of law. 25 Now, first, they're alleging that</p>
Page 71	Page 73
<p>1 is Todd Carter with the Office of General 2 Counsel. And I'm just going to thank you for the 3 opportunity to get up here and make a few 4 comments and then respond to any questions you 5 may have. 6 First thing, I think we agree. We 7 believe a rulemaking would be the proper venue 8 for this. Because one of the things I think we 9 pointed out in our briefs and everything is 10 you're right, Commissioner Miller, there is no 11 specific language. The rulemaking process 12 requires specific language to be considered, to 13 be subject to public comment, and reviewed. And 14 that is lacking in this case. 15 Therefore, you know, so by way of 16 just administrative appeal asking the Commission 17 to modify, we don't believe you have the things 18 you need to make a decision to modify those 19 rules. 20 First, I mean, the petitioners are 21 not entitled to any of the relief in their 22 challenge to the beneficial use rules. The 23 relief they have requested, which is to modify 24 the rules, is inconsistent with the argument that 25 ADEM exceeded its authority when we produced</p>	<p>1 these rules are contrary to state and federal law 2 because they allow illegal dumping or create, you 3 know, illegal dumps and open dumps. But these 4 aren't -- these rules are not outside ADEM's 5 authority. 6 Petitioners do not ask the 7 Commission to strike them. They're asking them 8 to modify them. And according to their own 9 rules, petitioners urge the Commission to modify 10 and address buffers and variances, too, which 11 they're not saying anything is wrong with. 12 They've asked you do one thing 13 because these are wrong, do this because we just 14 want them changed. They're not wrong, but that's 15 part of their argument. 16 So they're requesting a remedy here 17 that's inconsistent with their argument. If the 18 rules all or in part are invalid and void, 19 according to statutory authority they cannot be 20 modified; they have to be disapproved. And if 21 there is no argument that certain rules are 22 invalid and there's no reason to modify them, 23 if -- I mean, it's just that, if they're invalid, 24 there's no way or reason to modify. 25 They also allege, too, now that this</p>

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 74..77

Page 74	Page 76
<p>1 is close to a rulemaking petition; therefore, it 2 will have to follow the rules of public comment 3 and public notice as well. Petitioner failed to 4 submit specific language and, therefore, would be 5 subject to the requirements -- it wouldn't -- it 6 would fail to meet the requirements of a 7 rulemaking petition. Because that's one of those 8 specific things is you've got to have that 9 specific language in there.</p> <p>10 I think (inaudible) is they're 11 asking you to do an order, just a general rules, 12 Oh, the rules aren't good enough, Department go 13 change them. And without that specific language 14 in there, it's kind of -- there's no direction, 15 no way to set exactly what needs to be done.</p> <p>16 Now, these rules do not allow 17 unauthorized dumps or open dumps because it -- 18 especially, I think Mr. Brock at one point 19 referred to them, They're putting waste out 20 there. It's not waste. These rules are about 21 beneficial use of materials.</p> <p>22 To be subject to these rules, 23 they're not solid waste. Specifically, solid 24 waste is something that has to be discarded. 25 These materials are not discarded. They're being</p>	<p>1 law. So we didn't see a need to rewrite that, 2 but what we did see was a gap on what materials 3 are being applied to the land here in the state 4 of Alabama. That's what we wanted to find out.</p> <p>5 So we produced these regulations in 6 an effort to basically define that universe, come 7 up with regulations to seek and make sure that 8 everything was being applied correctly. And 9 there was no danger of any kind of pollution to 10 the environment.</p> <p>11 And one of the things I think he 12 referred to, I think he's selling short on the 13 rules on the part of -- the rules require 14 nutrient management plans and operations plans 15 for every site. Now, a nutrient management plan, 16 what that does is it takes what they're proposing 17 to apply, breaks it down into, Is there a 18 nutrient -- first and foremost, is there some 19 beneficial nutrient that would be needed? And 20 that's the information that we get, that we 21 review prior to the registration.</p> <p>22 Now, the reason we chose to go -- 23 instead of some kind of blanket coverage or 24 regulatory scheme, would be all these sites -- 25 when you're talking about this beneficial use,</p>
Page 75	Page 77
<p>1 used for a beneficial purpose, and that being 2 applied to either the nutrient value or -- you 3 know, it has to be a reason why we would use 4 these particular materials.</p> <p>5 And the rules go on forward to say 6 that if the Department determines that you're 7 actually using these materials and put them on 8 your property in lieu of disposal, then you're 9 subject to enforcement under these rules. So, I 10 mean, that would be, you know, orders and NOV's 11 and subject to that civil penalty.</p> <p>12 So it's not that the rules are 13 creating a dump. A registered applicator, just 14 because he goes out and violates his rules or 15 registration, is not -- that doesn't mean the 16 rules are bad. That means that he's in violation 17 of those rules and we can take enforcement action 18 against him.</p> <p>19 The rules aren't objectively 20 unreasonable. Petitioners bear the burden of 21 proof that the challenged rule was objectively 22 unreasonable. ADEM sought to fill a regulatory 23 gap.</p> <p>24 Now, I heard Mr. Brock mention 25 biosolids. Biosolids are regulated under federal</p>	<p>1 all the sites are different. There's different 2 soils. There's different crops. Each site has 3 different ways that it needs to be -- the actions 4 need to be performed on that. So we chose the 5 route of a nutrient management plan instead.</p> <p>6 And, now, in some situations there 7 were some exceptions to those nutrient management 8 plans, but those were carefully monitored by the 9 Department and also to make sure that they were 10 not in any kind of violation or created some kind 11 of pollution.</p> <p>12 Like I said earlier, they did 13 challenge the variances. And under those rules, 14 those variances are only to be given if they go 15 beyond what the federal requirements would be or 16 that there's a demonstration that it wouldn't 17 threaten public health or unreasonably create 18 environmental harm.</p> <p>19 These rules aren't in conflict with 20 any of our other environmental laws. If one of 21 these applicators violates the Alabama Water 22 Pollution Control Act, they're still subject to 23 those rules as well. So this isn't kind of all 24 they're subject to is beneficial use rules and 25 nothing else. So there's protections there as</p>

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 78..81

Page 78	Page 80
<p>1 well.</p> <p>2 So we would ask -- I mean, based on</p> <p>3 what has been submitted, we would ask the</p> <p>4 Commission to adopt the proposed order approving</p> <p>5 the adoption of beneficial use rules supported by</p> <p>6 the Department's alternative findings of fact and</p> <p>7 conclusions of law.</p> <p>8 So I would be happy to entertain any</p> <p>9 questions you may have.</p> <p>10 DR. MILLER: So the person who</p> <p>11 is spreading this stuff, they have to submit, it</p> <p>12 sounds like, a fairly detailed plan to the</p> <p>13 Department before they spread it. Is that</p> <p>14 correct?</p> <p>15 MR. CARTER: Yes, sir. Under</p> <p>16 the rules they are required to submit a nutrient</p> <p>17 management plan, which is the data, for lack --</p> <p>18 the data that our folks review to determine if</p> <p>19 it's proper, if it's -- if that material is not</p> <p>20 proper to be sprayed on that particular field or</p> <p>21 farm or whatever, that's when those decisions are</p> <p>22 made. When they submit that with the</p> <p>23 registration, our folks review that before they</p> <p>24 grant them their registration to apply to the</p> <p>25 property.</p>	<p>1 use rules, but also you have the 40 CFR rules</p> <p>2 under federal law that would be subject to it if</p> <p>3 it was determined that they were disposing or</p> <p>4 spraying some type of biosolid.</p> <p>5 DR. MILLER: Okay.</p> <p>6 DR. PERRY: Question, also. In</p> <p>7 terms of strict USDA guidelines, federal</p> <p>8 guidelines for animal -- use of animal waste for</p> <p>9 agriculture, which has been in place for</p> <p>10 centuries, so there's strict guidelines, you-all</p> <p>11 follow those guidelines as well, also?</p> <p>12 MR. CARTER: Yes, ma'am. They</p> <p>13 use what information is available to them to make</p> <p>14 those decisions as it pertains to the nutrient</p> <p>15 management plans and operation plans.</p> <p>16 MR. BROCK: If I can have --</p> <p>17 MR. BROWN: I have one question.</p> <p>18 You know, we talked a lot about, you know, the</p> <p>19 potential discharges, effect on soil. But one of</p> <p>20 the things Mr. Brock mentioned was the</p> <p>21 unmitigated stench. Do the rules provide for</p> <p>22 anything like that?</p> <p>23 MR. CARTER: What we looked at</p> <p>24 -- and we get these complaints -- you're talking</p> <p>25 about odor complaints?</p>
Page 79	Page 81
<p>1 DR. MILLER: Well, wouldn't that</p> <p>2 necessarily mean they'd have to know what</p> <p>3 chemicals or what nutrients or whatever is in the</p> <p>4 stuff they're going to spread?</p> <p>5 MR. CARTER: Yes, sir.</p> <p>6 DR. MILLER: And they would</p> <p>7 submit that?</p> <p>8 MR. CARTER: And that's what</p> <p>9 they're looking for. They're not going to allow</p> <p>10 something to come through that's questionable.</p> <p>11 If there's -- you know, they seen something that</p> <p>12 draws a red flag, they're --</p> <p>13 (Simultaneous speakers.)</p> <p>14 DR. MILLER: If you guys find</p> <p>15 them violating a federal rule that's sort of</p> <p>16 nebulous than the state rule, you still would</p> <p>17 give them a letter of enforcement or turn them in</p> <p>18 to the feds or what would you do?</p> <p>19 MR. CARTER: Yes, sir. If</p> <p>20 they're -- if our inspectors go out to the site</p> <p>21 and determine them to be in violation of the</p> <p>22 beneficial use rules or the biosolids rules -- I</p> <p>23 think Mr. Brock brought up there being human</p> <p>24 waste and things being applied to farmland. All</p> <p>25 those options are there. You have the beneficial</p>	<p>1 MR. BROWN: Yes.</p> <p>2 MR. CARTER: When we go to the</p> <p>3 site, what we looked at is basically the</p> <p>4 operations plan and the nutrient management plan.</p> <p>5 First to see what they're allowed to be applying</p> <p>6 to make sure that they are applying what they</p> <p>7 said they were going to apply. We don't want to</p> <p>8 give you fuzzy anything there on that. But then</p> <p>9 you go to the operations plan. Because there's</p> <p>10 some materials that are known and have the</p> <p>11 propensity to cause odor. And a lot of times in</p> <p>12 those operations plans what we see and we will</p> <p>13 ask them to do is do certain things such as</p> <p>14 tilling it in or knifing it into the soil,</p> <p>15 instead of just applying it to the surface.</p> <p>16 Because if you apply it to the surface, the</p> <p>17 probability of odor might be a little bit higher.</p> <p>18 But if you knife it in, it's absorbed by the soil</p> <p>19 and that odor problem is reduced significantly.</p> <p>20 MR. LeFLEUR: Would you explain</p> <p>21 to them the difference between our proposed order</p> <p>22 and the Hearing Officer's proposed order?</p> <p>23 MR. CARTER: Yes, sir.</p> <p>24 The difference between the Hearing</p> <p>25 Officer's order and the order we submitted is in</p>

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 82..85

Page 82	Page 84
<p>1 the Hearing Officer's order he agreed with our 2 position but didn't ask the Commission to make a 3 finding of (inaudible) acceptance of a 4 modification or a denial. And that's what we 5 did. We basically added in that type of language 6 to our order to reflect that.</p> <p>7 MR. BROCK: If I could have just 8 one minute to address some of those points, I 9 would be most grateful.</p> <p>10 So at the end Mr. Carter was talking 11 about the Department instructing people to do 12 things like tilling the material in to avoid some 13 of the stench. And it's nice that they say they 14 will do that. But an ad hoc procedure where you 15 tell somebody here to do this and over here to do 16 that, that's not regulation.</p> <p>17 And what would be much better for 18 everyone is if this was reduced to writing in a 19 regulation that told all the applicators what 20 they can and cannot do, rather than a 21 site-by-site inspector trying to decide what 22 works here and what doesn't work there. No other 23 jurisdiction does it on an ad hoc basis like 24 that.</p> <p>25 Second, Mr. Carter talked about the</p>	<p>1 regulations, then it's sort of a fictitious 2 premise that this waste became beneficial 3 material after it was applied. So that's the way 4 these regulations are supposed to work.</p> <p>5 And, last, I would close with their 6 argument, is that procedurally the Commission has 7 to say up or down. There's no -- they can't do 8 anything in between. And I would ask you: If 9 that is true, why do the regulations say 10 "modify"? The word "modify" means you can modify 11 the administrative action, the rules. If it 12 didn't have the word "modify", then they would be 13 correct. But it does, so how can you explain 14 what that word means if this is truly only an up 15 or down consideration? And we would submit it 16 can't be if you read the text of the regulation 17 fairly. Thank you.</p> <p>18 MR. CARTER: Just briefly on the 19 modify, you know, they didn't give you anything 20 to modify. They told you the rules were invalid. 21 And that's the whole part I talked about on the 22 rulemaking process is the specific language 23 required. And if there was truly a modification 24 available, there would be specific language to 25 facilitate a modification. And we don't have</p>
Page 83	Page 85
<p>1 nutrient management plan. And you may recall I 2 said that there are two sides to this equation. 3 One is beneficial and one is does it have 4 contaminants. A nutrient management plan only 5 looks at one half of that equation. It looks at 6 the nutrient value and comes up with an agronomic 7 rate and says, This is how many tons or pounds of 8 this you should put on that soil. It doesn't 9 look at the other side, the contamination part. 10 So when they submit a nutrient management plan, 11 as I argued, it doesn't -- the regulations don't 12 require the nutrient management plan to say 13 anything about contaminants or pathogens in the 14 material. And that's the problem.</p> <p>15 And, last -- well, next to last, he 16 talked about the definition of waste. And he 17 said, Well, this stuff is not waste. Well, I 18 promise you material coming out of a chicken 19 processing plant is waste. The distinction 20 they're trying to make is that if it is applied 21 to the land beneficially, then it is transformed 22 and it's no longer waste and now it's beneficial 23 material. Well, the problem is, if it wasn't 24 applied appropriately to begin with, and you 25 don't know if it was because there are no</p>	<p>1 that here.</p> <p>2 MR. WALTERS: My 3 understanding -- we reference biosolids. We have 4 been doing that for 30 years, 40 years, long 5 time.</p> <p>6 MR. CARTER: Yes, 40 CFR has 7 been around a long time.</p> <p>8 MR. WALTERS: And so if I recall 9 correctly, I mean, in doing a biosolids 10 application, part of your agronomic rate is based 11 on contaminants within the material that you're 12 applying. Otherwise -- I mean, it's not just 13 based on what nutrients. So I've got to believe 14 that this kind of falls on the same sort of 15 premise.</p> <p>16 MR. CARTER: Yes, sir. That's 17 the whole agronomic rate part of it. Because if 18 you apply too much of anything, water, it's a 19 problem.</p> <p>20 MR. WALTERS: So you're really 21 evaluating the (inaudible) exchange capacity of 22 the soil to adapt to whatever heavy metals that 23 might be in the waste or whatever it might be 24 being applied or something.</p> <p>25 MR. CARTER: And that's one of</p>

Page 86	Page 88
<p>1 the things I was talking about. Through 2 enforcement effort, if we go out and see they are 3 overapplying and then we look back at the 4 nutrient management plan and see, Well, this is 5 what they were supposed to be doing but it has 6 been overapplied, then that's when we start 7 looking at it as an enforcement action against 8 them, basically, because they're disposing of 9 waste.</p> <p>10 DR. MILLER: Well, now, getting 11 back to what Commissioner Walters said, is there 12 a likelihood and would they have to report if 13 there were heavy metals being applied and what 14 they're putting out on the fields?</p> <p>15 MR. CARTER: Well, the way we 16 try to circumvent that, is when our people are 17 reviewing those nutrient management plans, they 18 use their experience and their industry knowledge 19 and those type things to spot those red flags.</p> <p>20 DR. MILLER: Do they have to 21 tell you what they're going to be mixing up to 22 put out there?</p> <p>23 MR. CARTER: Yes, sir.</p> <p>24 MR. BROWN: They give you a 25 source?</p>	<p>1 contaminants and pathogens. But a lot of the 2 material, the other, the by-products, the waste 3 products are not governed by those federal 4 regulations. So we have one set of standards for 5 some of the material and no standards for other 6 material, which is another problem with the way 7 these regulations are.</p> <p>8 The federal regulations you 9 reference do not apply to chicken waste or coal 10 ash or other products that come within the 11 definition of by-products in the regulations. So 12 you got two different standards being applied.</p> <p>13 DR. MILLER: Wait a minute. You 14 said coal ash?</p> <p>15 MR. BROWN: We're not spreading 16 that around, are we? I don't think anybody is 17 using that for their crops.</p> <p>18 MR. WALTERS: There's nobody 19 using coal ash.</p> <p>20 MR. BROCK: The by-product that 21 comes out of the air control systems at coal- 22 fired power plants has been granted an exemption 23 to land apply.</p> <p>24 MR. CARTER: Gypsum, but it's 25 being used for soil pH.</p>
Page 87	Page 89
<p>1 MR. CARTER: Yes, I -- yes, sir, 2 they do. We do -- we have the source of the 3 material available. Because a lot of times the 4 material that they're getting, we're familiar 5 with the source because they would be regulated 6 as well.</p> <p>7 MR. BROWN: Because they're 8 regulated.</p> <p>9 MR. CARTER: We get this from 10 this facility; and, therefore, we know where it's 11 coming from. And we have experience and we know 12 what they produce.</p> <p>13 MR. WALTERS: You've got a final 14 --</p> <p>15 DR. MILLER: Is the keyword here 16 final?</p> <p>17 MR. BROCK: Despite the old joke 18 about when the lawyer says they have one more 19 question, (inaudible). But this is the 20 final-final.</p> <p>21 It was a very good point you made 22 about biosolids. And the situation now in the 23 state is that some of the material being land 24 applied is biosolids and it is governed by 25 federal regulations which make you disclose</p>	<p>1 DR. PERRY: So just for clarity, 2 you're asking for the Commission to modify? 3 And you're saying that we need the 4 language so that we can start to process?</p> <p>5 MR. CARTER: At this point, at 6 this juncture, the Commission doesn't have 7 anything to modify.</p> <p>8 DR. PERRY: That's what I'm 9 saying.</p> <p>10 You're saying to modify? 11 And you're saying we need the 12 language to modify?</p> <p>13 DR. MILLER: Sounds like you 14 guys need to submit a rulemaking petition. I 15 just don't see any way around that. Maybe I'm 16 crazy, but...</p> <p>17 MR. CARTER: I guess, we're 18 very, very close to going back to rulemaking on 19 these very rules as well. Because we have 20 learned a lot over the past year and a half, two 21 years with what we have seen. And we recognize 22 that they weren't perfect to begin with, but now 23 since we have been using them and trying to 24 enforce them over the past year and a half, two 25 years have learned a lot. So we're in the</p>

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 90..93

Page 90	Page 92
<p>1 process of looking at those and going back and 2 rulemaking. 3 MR. BROWN: Speed it up and go 4 talk to him. 5 MR. MASINGILL: And am I correct 6 in this, and I might not be, you have to submit 7 this nutrient management plan. And, like, site 8 A, the conditions there might be very different 9 than site B. So a nutrient management plan may 10 be different site A to site B based on the 11 geology and the groundwater and other things. 12 Correct? 13 MR. CARTER: Conditions on each 14 site are different, and we want to make sure -- 15 MR. MASINGILL: So in my 16 estimation, if you do a blanket, there's so many 17 variables in what you encounter in the 18 environment, it looks to me like it's good to 19 have a nutrient management plan that you evaluate 20 for that specific site. Am I missing something? 21 MR. CARTER: No, sir. 22 MR. MASINGILL: Okay. 23 MR. CARTER: I think that was 24 part of the Land Division analysis and evaluation 25 in creating when they were creating these regs,</p>	<p>1 we started biosolids application. It's ongoing. 2 We learn. We do -- we adjust. We improve. 3 MR. LeFLEUR: And all parties 4 will have the opportunity to comment on the 5 proposed rules coming up. 6 MR. WALTERS: Good discussion. 7 Anybody have any more final comments? 8 (No response.) 9 MR. WALTERS: All right. Well, 10 it was a good discussion. I appreciate -- 11 MR. BROCK: Thank you for your 12 time. 13 MR. WALTERS: So at this time 14 we're going to entertain a motion from the 15 Commission regarding the Hearing Officer's Order 16 and Recommendation. 17 Do I have a motion? 18 DR. MILLER: I move we adopt the 19 Department's proposed order for the time being. 20 MR. BROWN: I second without -- 21 without for the time being. 22 DR. MILLER: That's a good 23 point. 24 MR. WALTERS: I have a motion. 25 I have a second.</p>
Page 91	Page 93
<p>1 that just because something works over here on 2 site A -- 3 MR. MASINGILL: It might not on 4 site B. 5 MR. CARTER: -- it could be 6 different. Site B, it's not going to work. 7 You're going to end up with some type of 8 pollution or some type of contamination if you 9 use the same plan you used on site A. 10 MR. MASINGILL: Exactly. I 11 thought that was correct. I just wanted to be 12 sure. 13 MR. LeFLEUR: If I could add one 14 thing. The Department is working on updating the 15 beneficial use regulations in the Department. 16 Back a year ago in our FY '21 Plan it was an 17 objective. And in February you, in your 18 rulemaking -- proposed rulemaking, or anticipated 19 rulemaking, the memo that you get, that showed we 20 that were working toward -- I have forgotten what 21 the date was that we had for that. I believe 22 it's sometime in the spring of '22. 23 MR. WALTERS: So in a way, in 24 the broad scheme of things, this issue is -- it's 25 ongoing, as you say. Just like it has been when</p>	<p>1 Any -- 2 MR. MASINGILL: Could I slightly 3 amend that? 4 MR. WALTERS: Absolutely. All 5 right. 6 MR. MASINGILL: The only thing 7 I'd like to add to that, also, and revise the 8 proposed alternate findings of fact and 9 conclusions of law as noted and marked on the 10 Department's proposed order. There were some 11 changes on it last minute. 12 DR. MILLER: Okay. 13 MR. WALTERS: So we have a 14 motion to adopt the Department's revised proposed 15 order and revised proposed alternate findings of 16 fact and conclusions of law as noted and marked. 17 So we have a motion to adopt the 18 Department's proposed order and revised proposed 19 order and a second; is that correct? 20 MR. BROWN: Yes. 21 MR. WALTERS: Any further 22 discussion? 23 (No response.) 24 MR. WALTERS: All those in 25 favor, signify by raising your right hand.</p>

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Pages 94..96

Page 94	Page 96
<p>1 (All Commission members 2 affirm.) 3 MR. WALTERS: Any opposed, like 4 sign. 5 (No response.) 6 MR. WALTERS: Okay. The motion 7 is carried. 8 Item number 10 is any other business 9 before the Commission. I did not even ask. Do 10 we have any? 11 (No response.) 12 MR. WALTERS: No other 13 business. 14 Item number 11 is the future 15 business session. Our next scheduled Commission 16 meeting would be December 10th, I believe, this 17 year. Any conflicts that we know of? 18 (No response.) 19 MR. WALTERS: As far as we 20 know, is everyone going to be available, no 21 unanticipated -- 22 (No response.) 23 MR. WALTERS: All right. Very 24 well. Our next Commission meeting will then be 25 December 10th.</p>	<p>1 STATE OF ALABAMA) 2 COUNTY OF ELMORE) 3 4 5 I hereby certify that the above 6 proceedings were taken down by me and transcribed 7 by me using computer-aided transcription and that 8 the above is a true and accurate transcript of 9 said proceedings taken down by me and transcribed 10 by me. 11 I further certify that I am neither 12 of kin nor of counsel to any of the parties nor 13 in anyway financially interested in the outcome 14 of this case. 15 I further certify that I am duly 16 licensed by the Alabama Board of Court Reporting 17 as a Certified Court Reporter as evidenced by the 18 ACCR number following my name found below. 19 20 21 22 23 <i>Victoria Castillo</i> 24 VICTORIA CASTILLO, ACCR #17, 9/30/22 25 FREELANCE COURT REPORTER</p>
<p>1 Do we have any requests for members 2 of the public to speak today? 3 MS. THOMAS: No. 4 MR. WALTERS: Motion to 5 adjourn. 6 Any discussion? 7 (No response.) 8 MR. WALTERS: All those in 9 favor, signify by saying "aye" and raise your 10 right hand. 11 (All Commission members affirm.) 12 MR. WALTERS: Any opposed? 13 (No response.) 14 MR. WALTERS: We stand 15 adjourned. Thank you. 16 (Proceedings concluded at 17 12:55 p.m.) 18 ***** 19 20 21 22 23 24 25</p>	

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: \$1..335-3-10-.03

	101 8:17	68:24	16:12
\$	24:20	2021 7:4	17:10,25
\$1 12:13	105 8:23	8:17,20	18:11
\$1.6 12:8	25:1	9:2 11:13,	19:21
\$2.3 12:19	10th 31:7	20 12:23	20:22 21:9
\$200,000	94:16,25	13:13 14:8	23:18
12:4	11 15:2,4	15:14,17	24:5,25
\$23,677	94:14	18:12,22	25:23 38:4
42:25	11:01 3:2	19:4 20:6,	40:6,14
\$300,000	12 15:14	11,22	53:2 91:22
42:20,23	21:2	22:22	26th 31:7
\$310,000	12:55 95:17	23:7,17	29 14:8
47:16	13 33:1,3	24:20	
\$319,000	34:9	25:21	3
12:3	14 33:3	35:17	
\$340,000	14th 68:23	2022 7:2,5	3 6:10
11:25	15 33:3	8:23 11:16	30 35:17
\$4 11:17	18 20:16	14:15	85:4
\$5- 42:12,	33:23	15:16	313 42:24
23 47:12		18:24	33 24:16
\$5.6 42:23	2	20:8,20	335-11-.06
\$5.9 13:4	2 10:25	22:3 24:17	30:10
\$500,000	38:4 40:14	25:25	
11:25	53:6	2023 18:1	335-13
\$6 42:12,23	20 14:18	22:16	32:14,18
47:12	20-02 57:2,6	21 7:15	335-13-16
	2019 7:6	10:19	57:9
1	14:14	14:18 17:9	335-3 28:14
1 33:3 40:6	2020 13:15	21:25	30:5,8
10 36:18,23	15:8 22:15	24:23	335-3-10-.01
59:18 94:8	25:21	91:16	30:9
	61:17	21-05 35:11,	335-3-10-.02
		15	30:9
		22 7:16 9:6	335-3-10-.03
		10:20	30:10
		14:19	

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021 Index: 335-3-11-.07..additional**

335-3-11-.07	36:18	acceptable	Act 13:3,5
30:10	7th 33:23,	68:13	21:21,22,
335-3-19-.01	25	acceptance	23 40:6
30:11		53:14 82:3	41:7 53:3
			77:22
335-3-19-.05	8	access 20:2	acting 28:18
30:12	8 33:3	accomplish	action 28:20
335-3-8-.72	35:10	20:15	50:13,25
30:9	87 14:13	25:19	56:1 75:17
	8th 3:4	accomplished	84:11 86:7
4	31:8	8:21 9:3	actions 77:3
		10:19 11:8	
4 33:3		16:19 19:6	activities
	9	accomplishment	8:9,12,14
40 43:14		s 25:12	10:8 11:5
52:11	9 53:2	accord 49:10	19:10,14
53:19 80:1	56:24	accordance	39:6 42:7
85:4,6	91 29:8	45:15	46:20
43 21:9		accountable	activity
44 8:19	A	19:13	17:2 25:7
45 8:24	a.m. 3:2	accreditation	39:7
	ability	15:4,9,18	actual 41:3
5	51:24	accreditations	ad 82:14,23
	absence	16:12	adapt 85:22
5 33:3,18	39:13	achieve 7:11	add 30:11
55 14:24	Absolutely	9:12 15:10	31:3 54:9
57 8:18	93:4	18:15	91:13 93:7
	absorbed	achieved	added 82:5
6	81:18	8:22 18:22	addition
6 28:12	abundantly	achieving	6:24 11:22
30:3	49:19	7:14 15:13	35:25
	accept	17:7 25:8	additional
7	65:22,25	acknowledge	20:9
	66:4	26:14	24:10,19
7 11:18			25:2
32:12			

Alabama Environmental Management Commission
 Commission Meeting on 10/08/2021

Index: address..Alabama

address 24:2 43:6 51:21 62:7 73:10 82:8	adequate 72:21 78:5 36:19	Advanced 15:4	28:11 30:2 32:12 35:9,13 56:23 57:3
addressed 34:4	adhere 52:4	advancing 13:18	agree 71:6
addressing 10:9 47:1	adjacent 61:11	advantage 15:14	agreed 82:1
ADEM 6:11 9:23 10:6, 20,22 14:12 19:5,6 21:11 22:4 23:22 24:21,24 26:20 27:10 28:13,25 29:7 30:4, 7 32:13,17 35:10,14 39:4 44:7 45:15,19, 25 49:4,8, 13 50:18 54:7 57:1, 6,9 66:2 71:25 72:1 75:22	adjourn 95:5	adverse 42:2	agreeing 70:13
	adjourned 95:15	advice 56:9	agreements 17:14
	adjust 92:2	AEPACS 23:11,20 24:8	agriculture 80:9
	administrative 28:13 30:4,7 32:14,17 39:3,13 47:25 51:17 57:9 60:6 64:4, 9,14 71:16 84:11	affect 51:19	agronomic 83:6 85:10,17
	adopt 3:9 27:19 30:19,22 31:14,21 32:25 34:8,17 78:4 92:18 93:14,17	affecting 10:3	ahead 6:9 52:16 53:23
	adopted 31:2 63:3 68:23 72:1	affidavit 42:10	air 16:21 21:21,22 23:15,21 28:14 30:5,8,17, 20 31:18 88:21
ADEM's 19:14 42:24 43:4 44:5 45:5, 8 52:1,23 54:7 69:7 72:2 73:4	adopting 72:22	affirm 3:18 4:25 5:21 28:4 29:21 32:5 35:3 37:1 47:23 56:17 59:3 94:2 95:11	AL0084191 35:17
	adoption 27:3,15	afforded 45:19	Alabama 6:25 10:16 21:3,15 23:9 35:19 38:4 47:17 49:14 56:25 57:5
		afternoon 70:22	
		agencies 18:19	
		agenda 4:2 6:10 26:11,18	

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021 Index: allegations..arbitrary**

62:10 76:4	34:15,18	appealed	86:13
77:21	amount 12:12	35:16	87:24
allegations	amounts	appeals	88:12
45:12	68:11	63:17	applier
49:17,23	analyses	65:12	75:13
allege 73:25	16:21	Appendix	appliers
alleged	analysis	30:11	77:21
45:4,23	10:15 46:6	applaud	apply 63:3
alleging	90:24	61:19	76:17
72:25	animal 80:8	applause	78:24
Alliance	annual 7:9,	16:2	81:7,16
57:1,5	12,22 8:3	applicable	85:18
allowed 22:8	9:11 10:11	45:16	88:9,23
81:5	21:17 25:6	49:10	applying
alternate	annually	applicant	81:5,6,15
57:24	43:1	39:16	85:12
93:8,15	anti-litter	41:17	appreciation
alternative	17:19	applicants	6:5
33:10 70:4	anticipate	62:16,21	appropriately
72:23 78:6	69:21	application	83:24
Altogether	anticipated	53:15	appropriation
21:7 24:15	9:18 91:18	57:11 60:8	11:17,22
ambitious	apologize	61:4 62:6	approving
25:24	28:17	85:10 92:1	64:11
amend 63:17	appeal 45:2	applications	72:21 78:4
67:23 93:3	46:24	20:1	approximately
amended 64:1	48:25	applicators	14:24
amendments	49:24	82:19	47:12,16
28:13	50:16	applied	aquatic
30:4,7	51:4,17	61:15 75:2	40:18
31:18,21	57:8,14,17	76:3,8	arbitrary
32:13,17,	64:6,10	79:24	50:17
25 33:2	65:14	83:20,24	62:21
	71:16	84:3 85:24	

Alabama Environmental Management Commission
 Commission Meeting on 10/08/2021

Index: area..biosolids

area 45:21	August 19:10	89:18 90:1	beginning
areas 17:24	35:17	91:16	7:2
20:3 30:20	authorities	background	begun 22:14
31:15	50:20	60:7	behalf 6:4
argue 64:8	authority	backup 23:3	43:24
argued 64:2	45:6,8	bacteria	bell 43:11
83:11	50:22 60:5	60:16	beneficial
argument	64:5,15	bad 75:16	17:17
35:22	71:25 72:3	ban 61:1	57:10
36:7,15,23	73:5,19	Barry 59:21	60:12,17
44:5 54:17	authorize	based 39:2	62:19
55:19	27:7 29:5	55:17 78:2	66:16
58:2,5,8,	51:10	85:10,13	71:22
17,19,25	authorizes	90:10	72:1,19,22
59:7	45:10 51:6	basically	74:21 75:1
63:10,12	automation	60:10	76:19,25
66:4 71:24	22:8,24	68:11 76:6	77:24 78:5
73:15,17,	25:15	81:3 82:5	79:22,25
21 84:6	avenue 63:25	86:8	83:3,22
ash 88:10,	averages	basis 39:23	84:2 91:15
14,19	17:5	43:10 65:9	beneficially
assert 50:24	avoid 82:12	66:6 82:23	83:21
61:3	awarded	bear 75:20	benefit 47:6
asserted	12:11	beard 16:1	68:7
47:3	aware 37:18,	beat 17:5	benefits
assist 15:10	24 38:18	beautiful	48:19
attorney	aye 95:9	38:14	bestowed
37:7,16		began 3:1	26:15
43:19 48:8	B	15:8 20:12	Bill 37:14
58:2	back 7:21	31:7	biosolid
Auburn	44:2 65:5	begin 83:24	80:4
14:10,21	69:23	89:22	biosolids
audience	86:3,11		63:3 75:25
16:2			79:22

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Index: bit..case

85:3,9	broadening	burden 37:18	capacity
87:22,24	28:24	44:16,21	5:10 6:6
92:1	Brock 59:20,	46:3 48:2	85:21
bit 59:25	22 63:9	49:5	capricious
60:2,7	68:20,21	54:12,14	50:18
81:17	69:1,5,17	75:20	care 12:3
black 13:21	70:3 74:18	Burr 43:23	carefully
56:24 57:3	75:24	business	77:8
69:2	79:23	94:8,13,15	cares 21:4
blanket	80:16,20	button 41:22	Carrie 48:10
76:23	82:7 87:17	by-product	carried 94:7
90:16	88:20	57:10 60:9	carries 28:8
Blanton	brought	62:2 64:22	30:1 32:9
48:9,11	57:15	66:19 67:6	35:7 37:5
54:20	79:23	88:20	56:21
Board 29:6	BROWN 3:10	by-products	carry 37:19
boating	5:14,17	67:15 68:7	59:15
12:18	27:21	88:2,11	Carter 70:22
bond 46:25	29:13		71:1 78:15
54:19	53:21	C	79:5,8,19
bottom 63:13	55:23	CAFO 24:8	80:12,23
box 60:2	59:6,12	calculations	81:2,23
boxes 39:17	63:6 80:17	42:15	82:10,25
breaks 76:17	81:1 86:24	calibration	84:18
briefed	87:7 88:15	23:16	85:6,16,25
63:11	90:3 92:20	call 6:12	86:15,23
briefly	93:20	28:1 30:13	87:1,9
84:18	budget 11:19	32:2,19	88:24
briefs 71:9	buffers	34:24	89:5,17
broad 9:8	60:21	56:14	90:13,21,
16:15	73:10	called 19:4	23 91:5
18:11,13	build 19:22	candidates	case 11:12
91:24	building	4:20	37:17,23
	25:16	13:12,22	38:10

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: cases..comments

40:22	Chairman	88:9	clicker 7:17
41:21 42:4	4:3,9,11,	Chief 32:23	clock 52:15
44:1 49:19	23 5:4,9	chose 76:22	close 74:1
53:25	6:1,2,16,	77:4	84:5 89:18
54:5,15	20,22	circuit	co-op 13:10
57:15	32:22	50:14,15	co-ops 13:14
59:24	37:14	51:24	coal 33:17
63:10 64:4	59:21	53:25	88:9,14,19
71:14	70:23	circulated	coal- 88:21
72:12	challenge	3:6	Cobb 32:21,
cases 49:12	71:22	circumvent	23 35:8
catch 30:21	77:13	86:16	Code 28:13
categorized	challenged	citizenry	30:4,7
8:4,18	75:21	38:3,13	32:14,17
caused 56:4	challenging	citizens	38:4 57:9
Center 59:23	25:22	20:2 21:15	60:6 64:9,
centuries	change 29:7	41:13 54:4	14
80:10	30:25	60:24	coherent
certification	changed	civic 18:19	55:19
23:15 24:9	73:14	civil 75:11	coin 66:13
Certified	Chapter	claim 51:22	collaborative
15:3	33:18 57:9	clarification	70:10
CFR 80:1	Chapters	33:6	colleges
85:6	33:3	clarify	13:21,23
Chair 3:25	character	33:14	combustion
4:13 6:6	50:6	clarity 89:1	33:17
26:12,13	checked	classroom	comment 31:6
27:8,18	39:18	17:22	33:22 34:3
28:19 29:5	chemicals	Clean 21:22	65:1,6
30:16 35:8	60:15 79:3	clear 44:15	69:6 71:13
48:10	chicken	49:19	74:2 92:4
58:16	66:17,18,	52:24	comments
chaired	20 83:18		27:1,10
26:21			

Alabama Environmental Management Commission

Commission Meeting on 10/08/2011 Index: commission..comprehensive

30:14 31:9	16,20	3:7 6:16	45:20
32:20	47:5,21,23	9:14 32:22	competitive
34:1,2	48:1,14,24	37:9 48:10	11:24
55:22	49:6,25	59:21	12:12
68:25 69:7	50:23	commitments	Compilation
71:4 92:7	51:23 52:3	21:18,25	27:9
commission	53:3 55:1	22:2	complaints
3:5,18	56:11,17	committed	60:24
4:4,25	57:8,13,16	25:25	80:24,25
5:11,21	58:4,7,14	Committee	complete
6:5,25	59:3,10	26:20,21,	22:16
7:1,7,24	60:4 63:17	23 27:8,	completed
9:12,17,21	64:10,14,	17,20	8:20 14:8,
10:7,13	24 65:10,	28:18,20,	13,24
15:7	22,25	24 29:3,10	18:10
16:22,23	66:4,10,14	common 17:13	23:7,14
19:10 20:7	68:5 70:25	communication	completes
26:11,13,	71:16	8:9 9:13	26:1
16 27:4,7,	72:18	20:18	completing
12,15	73:7,9	23:1,19	8:14
28:4,21	78:4 82:2	communities	completion
29:4,5,11,	84:6 89:2,	12:18	8:6,19,25
21 30:6	6 92:15	19:3,15	compliance
31:17	94:1,9,15,	24:4	17:13
32:5,16,25	24 95:11	community	23:10
35:3,10,	Commission's	42:20 50:6	45:17
14,16	44:15	companion	complied
36:19	45:12	43:5	65:15
37:1,12,	47:20 48:3	company	comply 51:2
15,24	51:17	55:25	composting
38:5,11	52:6,11	compatible	33:16
39:4	54:12	38:2	comprehensive
41:10,12	Commissioner	competence	17:19
42:18,25	5:13 9:23		
44:11,12,	10:2 71:10		
16,20,24,	86:11		
25 45:22	Commissioners		
46:3,7,13,			

Alabama Environmental Management Commission
 Commission Meeting on 10/08/2021

Index: computer..correct

computer 22:14	conform 23:23	constitutes 61:5	14:15 17:4 18:22 19:21 22:2
concern 53:25	confronting 10:3	construction 8:14	continuing 13:15 16:10
concerns 20:5 45:2, 23 46:11 50:1,4,8, 12 51:21	congratulate 6:19	consultant 13:2	continuous 8:5,7,18 12:20
conclude 48:1	congratulations 16:5 70:23	contaminant 67:20	contrary 73:1
concluded 95:16	connect 20:9 Conservation 21:23	contaminants 60:15 83:4,13 85:11 88:1	control 28:14 30:5,8 31:18 40:5 42:24 53:3 61:1 62:5 64:20 77:22 88:21
conclusions 57:24 72:24 78:7 93:9,16	considerable 22:5	contamination 83:9 91:8	
concrete 17:10 62:3	consideration 27:3 28:12 29:11 30:3 32:13 34:7 42:11 51:4 84:15	context 39:10	
concurrently 46:22	considered 45:25 49:24 50:7 71:12	continual 18:3	
conditions 49:11,13 51:1 90:8, 13	consistency 33:5	continue 6:4,9 9:16,24,25 10:19 13:17 14:19 15:16 16:13,17 17:2 18:8, 23,25 20:19 23:18,22, 25	controls 62:14
conduct 53:5,9	consistent 49:12 72:3	conversion 23:20	
conducted 61:5	consistently 50:24	convinced 48:24 60:4	
conflict 77:19	constitute 40:16 50:10	cooperation 14:10,20	
conflicts 94:17		copies 24:25 25:2	
		copy 35:24	
		correct 17:14 31:1 42:17 65:8	

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021 Index: corrected..December**

72:17	County's	39:6,11	16:20 17:4
78:14	49:22	40:10 41:2	dashboards
84:13	court 46:23,	42:8 51:8	16:25
90:5,12	25 50:15	Creekwood	data 16:18
91:11	51:24	35:18 36:2	22:17
93:19	54:2,15,16	42:4,15	23:2,8
corrected	56:2,4	43:19,25	78:17,18
35:23	courts 50:14	44:3 47:8,	data-driven
correctly	cover 33:10	10,14	18:7
76:8 85:9	67:19	51:2,5	database
Correspondence	coverage	54:2	23:15
10:24	76:23	Creekwood's	date 91:21
cost 21:15	COVID-19	44:13 45:3	Davis 37:8,
22:9 47:11	13:2,16	46:19 47:7	9,10
Counsel 71:2	21:25	49:8 51:25	52:10,14,
count 59:15	25:22	criteria	18 53:24
county 19:25	CPM 15:3,5	44:19,21	day 12:3
35:10,14,	crazy 89:16	46:4,5	21:4 50:16
15 37:11,	create 17:16	47:4,19	56:9
15 38:15	60:18 73:2	critical	day-to-day
41:12	77:17	21:13	22:7
42:21	created	crops 60:13,	days 15:1
44:11,16,	77:10	17 77:2	deadline
20,24	creates	88:17	59:9
45:12,22	40:17	current	deal 61:6,7
46:2,7,12,	creating	10:16	dealing
13,16,20	17:22	13:25	65:19
47:5,17,	75:13	cyber 22:25	Debi 3:22
20,21	90:25		4:6
48:1,15,16	credible	D	decade 22:4
49:1,5,20,	7:25 18:13	damage 42:5,	December
25 50:3,15	19:22 21:7	8	15:7
51:20,21	creek 38:13	danger 76:9	94:16,25
52:2 54:4,		dashboard	
5,12 55:13			

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: decide..develops

decide 82:21	77:16	66:15	designed
decision	denial 46:8,	67:9,22	60:21
71:18	17 47:20,	68:23	detailed
decisions	23 51:17	69:10,19,	19:8 21:17
78:21	82:4	22 70:12,	78:12
80:14	denied 48:4	21 72:20	details 41:3
declared	deny 51:23	74:12 75:6	deteriorating
41:8	55:3,9	77:9 78:13	24:2
declares	57:16	82:11	determination
41:7	denying 36:6	91:14,15	69:24
declaring	Department	Department's	determine
53:10	7:6,12	7:4,9 8:3	69:19
declined	10:3	9:10 10:9,	78:18
50:24	11:13,20	11 11:16	79:21
defending	12:7,16,22	19:9 21:14	determined
55:25	13:9,17,19	25:6,20	45:17 80:3
defenses	14:10,20	33:1 35:16	determines
49:18	15:8 16:25	48:8 49:18	75:6
deference	17:4 18:21	72:23 78:6	develop
45:20	19:13	92:19	15:12
define 76:6	20:6,11	93:10,14,	developed
defined 53:3	21:24 25:8	18	14:9,21
definition	30:13	departmental	23:14 49:8
40:6 83:16	32:19	8:2 9:2	developing
88:11	33:24	12:5 21:12	17:14 24:9
delay 47:11	35:25 38:6	23:6 24:6,	25:10
delays 13:3	39:19,20	16 25:1	development
deliver	40:2	deposited	8:10 12:25
10:12	41:16,18	40:9	14:4 16:9,
demonstrated	48:11	description	14 17:18
44:25	49:15	9:5	22:13 25:5
demonstration	51:12 52:4	designation	40:10
	53:4 57:21	15:23	develops
	61:16,19	designations	7:12
	62:15	15:12	
	64:18		

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: dewatered..easy

dewatered 38:25	disaster 12:1	93:22 95:6	16:22
dewatering 42:7	discarded 74:24,25	disposal 75:8	21:3,5,20, 21 24:13
difference 70:14 81:21,24	discharge 39:10	disposing 80:3 86:8	drive 61:11
dig 38:22 40:12	discharges 45:10 51:6,11 80:19	distinction 83:19	drives 61:13
directing 64:18 66:5	disclose 87:25	disturb 72:18	driving 68:14
direction 65:4 74:14	disclosure 67:5	disturbing 52:1 66:24	drone 23:13
Director 6:11,12 9:14,25 10:5,12 26:5,20 27:6,8,10, 13 28:9,25 29:7,8	discovery 63:19	diversity 13:18 19:7	due 8:20 13:1 48:4
Director's 10:21,23 27:1	discuss 10:2	Division 16:4 23:21 28:13 30:4,7,17 32:14,18, 23 33:1,3 34:9 90:24	dump 75:13
disadvantaged 13:22 19:2,15 24:4	discussed 27:1 28:19,22	divisions 10:9 22:20	dumping 62:11 73:2
disapproval 45:4	discussion 3:14 27:24 29:17 31:25 34:22 36:16 55:11,22 56:11	Docket 35:11,14 57:2,6	dumps 73:3 74:17
disapproved 49:2 73:20	discretion 39:25	document 19:14	duties 38:12 53:8,13
disapproving 64:12	discuss 10:2	doubt 18:1	duty 39:18 53:4
	discussed 27:1 28:19,22	divisions 10:9 22:20	<hr/> E <hr/>
	discussion 3:14 27:24 29:17 31:25 34:22 36:16 55:11,22 56:11	Docket 35:11,14 57:2,6	e-enterprise 12:6
	discretion 39:25	document 19:14	earlier 7:19 24:22 77:12
	discuss 10:2	doubt 18:1	earn 15:22
	discussed 27:1 28:19,22	drastic 44:14	earned 15:18
	discussion 3:14 27:24 29:17 31:25 34:22 36:16 55:11,22 56:11	draws 79:12	earth 38:21 40:12
	discretion 39:25	drinking 12:2,17	easy 63:1

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021 Index: ecomplaint..environment**

ecomplaint	62:18 76:6	13:12 19:7	50:10
20:1	86:2	encounter	enrolled
ecompliance	efforts	90:17	15:15
24:10	21:14	encouraged	ensure 33:4
ecosystem	60:20	67:25	45:18
38:16 42:6	efile 10:23	encouraging	46:15
43:12	19:24	13:11	enter 39:25
education	elect 4:13	19:24 68:9	40:1 64:10
16:10	elected	end 82:10	66:5
17:12,23	18:18	91:7	entertain
21:1 25:11	election 5:7	endeavors	3:8 4:10
educational	6:21	18:8 19:13	27:16
17:20	elections	ended 31:7	31:17
effect 80:19	4:2	ends 46:5	34:14 36:5
effective	electronic	enforce	54:25
7:24 8:2	22:5,17	89:24	58:13 78:8
9:11,13	element	enforcement	92:14
21:12,15	21:13	75:9,17	entities
23:6 24:6,	emaps 19:24	79:17	11:16
16	embracing	86:2,7	12:22
effectively	25:13	engage 16:11	22:21
39:9 46:5	EMC 35:10,	Engagement	entitled
effectiveness	14 57:1,6	19:16	10:6 19:16
24:12	emergency	engaging	44:22
efficiency	12:1	18:16,25	54:13
12:6 22:7	emissions	engineer	71:21
efficient	31:5	15:11,22	entry 22:18
8:2 21:12	empathy	engineering	environment
23:5 24:6,	55:13	13:2	7:25 10:4,
15	emphasize	English	16 11:1
effort 12:21	16:13	37:14	13:9 16:16
13:8	employees	enjoyment	17:8 18:5
20:12,18			38:2,23
61:19			49:10 68:8
			76:10

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021 **Index: environmental..failed**

90:18	estimates	exclusive	explanation
environmental	47:10,14	50:13	67:8
3:5 7:1	estimation	Excuse 28:17	extensive
10:17	90:16	execute	46:14
17:23	evaluate	27:11	47:24
18:21	90:19	exemption	external 8:1
19:5,9	evaluating	88:22	13:1 18:14
21:1 22:9	85:21	exercise	21:8 22:21
23:10	evaluation	41:13 72:2	extraordinary
59:22	23:13	exercises	44:14,23
77:18,20	26:21	39:20	extremely
EPA 10:14	27:11,13	existing	25:16
11:23	90:24	31:3	F
16:20	event 26:14	expanded	
21:18,19	evidence	19:20 20:6	facilitate
22:1,21	39:13	expanding	84:25
30:22 31:9	41:11	20:23 21:1	facilities
equation	47:22	expansion	8:15 12:4
66:16	evidentiary	12:4	17:15 21:4
83:2,5	46:24	expectation	25:18
equipment	54:18	28:25	33:17,18
23:9	exceed 21:17	expeditious	facility
equity 19:7	exceeded	46:24	87:10
erroneous	71:25	experience	fact 28:22
65:12	exceeding	86:18	43:4
error 31:1	22:1	87:11	49:21,25
49:17	excellent	experts	50:14 54:1
Espy 43:20,	6:8	20:17	57:24
22 54:9	exceptions	explain	72:23 78:6
established	77:7	81:20	93:8,16
24:7 46:23	exchange	84:13	fail 45:5
48:3	12:5 70:10	explained	74:6
establishing	85:21	31:11	failed 48:2
25:12			74:3

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Index: failure..fourth

failure 46:4	feel 44:9	67:1 76:4	Florie 37:10
fair 70:3	61:8	79:14	flow 51:13
fairly 78:12	feels 36:19	finding	focus 11:2,4
84:17	67:7	65:23 82:3	13:18
faith 39:20	fertilizer	findings	25:7,10
falls 85:14	66:17	57:24	61:25
familiar	fictitious	63:20	folks 78:18,
60:10 87:4	84:1	72:23 78:6	23
farm 78:21	field 12:25	93:8,15	follow 74:2
farmland	61:12	finds 57:12	80:11
60:11	78:20	finish 5:6	food 66:19
79:24	fields 86:14	finite 8:6,	force 62:5
favor 3:17	figure 42:13	13,19,24	Foreman
4:22 5:19	filed 35:20,	fired 88:22	43:23
28:2 29:20	25 36:2	firm 37:10	foremost
32:3 34:25	46:22	43:23	48:23
36:24	50:15,16	firmly 60:3	76:18
56:15 59:1	57:18,21	fiscal 7:1,3	forgotten
93:25 95:9	61:2,24	9:4 11:12	91:20
February	fill 75:22	12:24	Form 42:24
68:23	final 21:11	13:15	formal 17:14
91:17	42:1	14:8,15	19:4 23:18
federal 13:3	87:13,16	fish 40:18	formally
23:23 33:5	92:7	five-year	9:20
54:1,16	final-final	7:10,11	formatting-
63:2 67:18	87:20	9:8	type 31:10
72:4,7,11	finally 17:6	fixed 11:7	forum 46:18
73:1 75:25	47:18	42:9	47:1
77:15	Finance 29:6	fixtures	forward 6:21
79:15	financial	21:3	18:9 56:8
80:2,7	11:3,10,21	flag 79:12	67:24 75:5
87:25	18:6	flags 86:19	fourth 21:11
88:3,8	find 40:20		
feds 79:18			

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: fractured..grant

47:18	FY 7:4,5,	46:11	23:6 24:15
fractured	15,16	generated	goals 7:8,
38:23	8:17,23	17:9	11,14,23
frame 8:6	9:2,6	generation	9:8
11:9 59:18	10:19	22:14	good 3:3
frankly 61:8	11:16,20	47:15	12:20
64:3 70:9	12:23	generators	32:22 37:8
Free 56:8	14:18,19	12:1	39:20
free-flowing	15:8,14,	gentlemen	43:22 48:9
38:14	16,17	30:16	52:18
friendly	16:12	geographic	70:22 72:6
20:14	17:9,10,25	20:3,23,25	74:12
front 39:3,	18:1,11,	geological	87:21
19 40:23	12,22,23	38:23	90:18
41:11,15	19:4,21	geologist	92:6,10,22
42:25	20:6,8,11,	15:11	Gore 30:15,
52:21	20,22	geology	17 32:10
fulfilled	21:9,25	90:11	governed
53:13	22:3,15,	GIS 20:24	87:24 88:3
full-blown	16,22	give 6:12	Governor's
46:23	23:7,17,18	26:22	11:14
54:18	24:5,17,	69:18	grade 29:8
fully 18:10	20,23,25	72:14	grades 21:2
Fund 11:17,	25:21,23,	79:17 81:8	graduate
22 24:1	25 91:16	84:19	13:13 15:5
funding		86:24	granite
11:23	G	giving 48:12	38:20
12:7,9,21	gap 75:23	68:17	grant 12:7,
13:6 17:21	76:2	goal 9:10,	12 13:5
25:16	gases 23:16	12 10:25	36:10,14
future 25:10	31:3	11:4 16:15	48:14,23
29:1 94:14	general 9:4	17:7 18:5,	49:6 51:25
fuzzy 81:8	11:17,22	12,13,15	52:4 58:4,
	45:8 71:1	21:7,12,16	8,17,19,25
	74:11		
	generalized		

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Index: granted..high

59:11	guess 37:6	19:25	heard 5:15
65:10	55:12,23	happy 34:9	68:18
78:24	59:18 66:3	52:14 66:2	75:24
granted	89:17	78:8	hearing 31:8
44:19	guidelines	hard 16:6	33:24 34:2
48:19	80:7,8,10,	hard-fought	40:23
88:22	11	6:20	46:24 49:1
granting	guru 7:19	harm 41:1,	52:21
36:6 37:22	gurus 7:18	25 42:14	54:18
grants 11:24	guys 69:12	43:12 46:8	57:7,12,
12:19	79:14	47:7	19,22
grateful	89:14	48:18,20,	58:6,9,12,
82:9	Gypsum 88:24	22 51:22	14 63:14,
great 61:6,7		77:18	19 64:3
67:19	H	harmed 46:17	65:8,23
greater	H2o 39:11	harmful	68:24
22:24	Halawakee	40:17	72:17
33:11	38:13 39:6	62:19	81:22,24
ground 40:13	40:9 41:2	Hazardous	82:1 92:15
61:12	42:7 51:8	16:21	hearings
62:11	half 83:5	21:22	20:8
grounds 45:4	89:20,24	head 41:18	heavy 85:22
47:3	hand 3:17	54:23	86:13
groundwater	4:24 5:20	heading	held 31:6,8
39:12 40:7	28:3 29:20	10:23	33:24
45:9,11	32:4 35:2	health 38:3	helpful 4:8
51:11,14	36:25	40:16 49:9	high 7:24
90:11	56:16 59:2	77:17	10:25 11:5
group 18:19	93:25	hear 5:17	13:8 14:5
grouped 9:7	95:10	37:7 43:18	15:13
groups 18:17	hands 59:16	48:8 59:18	16:16
19:1 25:17	happen 40:19	67:25	17:2,7
Grove 35:18	Happening	70:21	18:2,4
			21:14
			22:12
			25:8,15

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: higher..individuals

44:15 48:2	25	20:17 22:6	inclusion
49:5	identify	23:24	19:8
higher 81:17	46:12	67:24 92:2	income 17:24
highest	II 15:5	improvement	19:2
22:11	illegal	18:3	inconsistent
highlight	73:2,3	in-house	71:24
44:8	impact 39:5,	22:20	72:7,10
highlighting	8 40:3	inaudible	73:17
10:8	42:3	45:19	incorporate
historically	impacts	53:15 54:3	33:9 64:19
13:21	39:12	74:10 82:3	incorporated
hit 41:22	40:7,8	85:21	56:25 57:4
hoc 82:14,	50:19	87:19	66:12
23	implement	inauguration	increase
hold 19:12	24:8	14:14	12:5 17:17
holder 42:3	implementation	incldue	increased
hole 38:23	22:13	19:19	47:11
40:12	23:9,19	include 8:13	increases
homes 61:13,	implementing	10:14	24:12
14 68:15	8:15 21:2	16:10	increasing
honor 26:15	important	18:5,16	22:25
hope 30:12	17:6 20:12	20:23 21:2	independently
43:12	23:3 38:7,	23:7,18	53:5
horizon 11:7	8,15 39:14	24:7 33:8	individual
human 11:3	44:9	37:25 68:6	9:2 10:10
13:7 14:3	importantly	included	15:20
18:6 49:9	16:25	22:19 34:5	18:20
67:13	imposed 47:8	includes	24:17 25:2
79:23	imposes	14:7 17:19	individually
I	49:14	21:8 24:16	15:6
ideas 17:9,	improper	including	individuals
	49:6	11:2 13:20	11:15 14:8
	improve	19:1 23:1	15:2,13,14
		25:14	
		42:21	

Alabama Environmental Management Commission
Commission Meeting on 10/08/2021

Index: industrial..issues

industrial 40:9 60:9	initiatives 13:19 15:12 19:20 21:1 25:7	interested 10:22 11:15 18:17,20 25:4	73:18,22, 23 84:20
industries 17:12	injury 46:13	interesting 65:20	invested 22:5
industry 17:16 18:17 24:10 61:10 62:12 86:18	innovation 8:12 17:6, 11 18:8 25:14	interface 24:13	investigate 53:8
informal 23:19	innovative 12:21 17:9,25	interfere 50:9	investigation 29:3 53:5
information 9:22 20:1, 3,23,24 24:19 41:16 62:16,22, 23 70:11 76:20 80:13	inspector 82:21	interim 10:10	investment 22:8
informed 16:24	inspectors 79:20	internal 22:17 23:19	involves 9:15 25:10 46:22
infrastructure 12:18 24:3	installing 24:12	Internet 19:23	irreparable 46:8 48:18 51:22
inhabitable 61:14	instances 68:10	interns 13:10,14	irreversible 41:1,25 42:6
initial 23:12	instructing 82:11	intervenor 36:2 58:3	issuance 35:16 41:4 48:21 72:19
initiate 23:22 70:6	integrated 22:20	intervenor's 43:19	issue 51:3 64:2 91:24
initiative 14:16	integrity 47:24 52:5	Intervenor/ petitioner 57:1,5	issued 43:7 44:13 45:15 49:4 51:2,5 57:7
	intend 67:23	introduce 15:6 37:13	
	intent 38:5	introduced 15:17	issues 10:2 13:2 18:21 31:10 43:6 50:6,7,19
	interest 20:4,25 47:19 48:22 61:7	invalid 49:4 50:2	

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: issuing..lawyer

51:16	judicial	knifing	89:4,12
52:22	50:20	81:14	large 42:12
58:5,8	51:20	knowledge	largely
66:8 68:18	July 31:7	86:18	31:10 42:6
issuing 46:1	33:23	<hr/> L <hr/>	largest
68:5	juncture		12:24
item 4:2	89:6	lack 41:4	lasting
6:10	jurisdiction	62:1,3	25:16
26:10,18	41:14 43:4	78:17	lastly 33:15
28:11,16,	50:24 54:7	lacking	latched
19 30:2	57:14	71:14	63:14
32:11,12	65:10,13,	ladies 30:16	latest 10:2
35:9,13	17 82:23	laid 61:23	Laura 4:7
56:23 57:3	jurisdictional	Lance 27:5	law 37:16
94:8,14	65:16	land 16:4	43:23
itemized	Justice	23:21	57:24
8:24	19:5,9	32:23	59:22
<hr/> J <hr/>	justify	50:18	72:4,7,11,
	47:22	51:16	24 73:1
Jannett	<hr/> K <hr/>	57:11	76:1 78:7
15:24 16:7		60:8,17	80:2 93:9,
Jeff 44:2	keeping	61:4 76:3	16
job 6:8,18	13:24	83:21	lawfully
26:20	Kevin 26:25	87:23	44:13
27:10	keyword	88:23	laws 49:11
39:21	87:15	90:24	77:20
69:23	kind 67:14,	landfills	lawsuit
John 5:10	19 74:14	31:4 33:16	46:22
Johnson 44:1	76:9,23	language	50:15
joined 44:4	77:10,23	33:8	65:17
joke 87:17	85:14	71:11,12	lawsuits
Judge 37:14	kinds 67:14	74:4,9,13	61:2
judges 54:5	knife 81:18	82:5	lawyer 87:18
		84:22,24	

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: lawyers..major

lawyers	6:12,14	43:17 61:1	25:9
53:22	16:3,8	limitation	longer 83:22
lead 12:3	26:9 27:6,	36:20	looked 80:23
18:1 21:3	9 81:20	limitations	81:3
47:11	91:13 92:3	51:7	loss 42:20
leaders	left 66:3	limits 62:1,	47:15
25:10	legal 38:12	13,20	lost 47:12
leadership	39:18	64:20 68:6	lot 30:18
11:14	50:22 54:2	liquid 40:10	60:18 61:8
14:9,16	56:8 63:12	61:12	66:18,24,
leading-edge	legally	list 16:8	25 67:11
25:14	63:11	literally	70:12
learn 92:2	legislative	64:13	80:18
learned	11:14 38:5	litigate	81:11 87:3
89:20,25	legitimate	52:22,23	88:1
led 17:9,11	50:6	litigation	89:20,25
Lee 35:10,	letter 29:5	43:5 56:5	low 17:24
13,15	79:17	litter 11:25	19:2 25:16
37:11	letters 69:6	17:21	lowest 22:9
42:21	letting	66:17	
44:11,16,	52:19	live 20:7	M
20,24	level 38:22	LLC 35:18	made 12:14,
45:12,22	license	36:2 43:25	23 14:7
46:2,6,12,	39:10	loan 24:1	44:9 78:22
13,16,20	lieu 75:8	local 50:20	87:21
47:4,17,	life 40:18	location	maintain
20,21	light 45:20	33:19	16:11
48:1,15,16	likelihood	lodging	maintaining
49:1,5,20,	45:1 48:17	65:14	18:2
22,25	49:3,21	long 25:9	22:10,25
50:3,14	86:12	85:4,7	major 21:16
51:20,21	limit 36:10,	long-term	22:17 44:2
52:2 54:4,	15 37:21		56:7
5,12 55:13			
Lefleur			

Alabama Environmental Management Commission

Commission Meeting on 10/08/2021

Index: Major's..mentioned

Major's	Manager 15:3	85:11	46:5 48:2
42:10	managers	87:3,4,23	74:6
majority	14:13,22,	88:2,5,6	meeting 3:4
49:22	23	materials	6:25 10:7,
make 20:13	managing	17:18	13 15:7
30:24	38:1 44:3	57:11	19:11 22:1
39:16	mandatory	60:9,11	24:20 25:3
43:20	21:5	67:15	94:16,24
49:18 58:8	manner 38:2	74:21,25	meetings
62:18	manure 66:18	75:4,7	9:21 10:1
63:11	marked 93:9,	76:2 81:10	16:22
65:24 67:4	16	math 54:22	18:18 20:7
68:25	marketing	matter 35:12	member 44:3
69:3,11,	24:1	37:12	58:7
15,23	Martin 37:15	49:21	members 3:18
70:15	Masingill	50:14	4:25 5:21
71:3,18	4:17 5:10,	matters	26:24 28:4
76:7 77:9	13 55:3	45:24	29:21 32:5
80:13 81:6	68:19,22	Mckinstry	35:3 37:1
82:2 83:20	69:3,8	26:25	56:17 59:3
87:25	90:5,15,22	meaning 53:4	70:25 94:1
90:14	91:3,10	means 20:10	95:1,11
makes 61:13	93:2,6	75:16	memo 9:22
manage 14:23	material	84:10,14	10:20,21
management	33:10	measure	91:19
3:5 7:1	60:14	16:18	memorandum
11:2,4	62:3,4,6,	measures	10:6
13:7 14:3	17 64:21,	18:7 23:1	menace 40:16
33:7	22 66:16,	measuring	mention
76:14,15	19,21 67:6	8:11 25:13	75:24
77:5,7	78:19	mechanism	mentioned
78:17	82:12	70:15	24:22 45:9
80:15 81:4	83:14,18,	meet 21:17	46:18
83:1,4,10,	23 84:3	27:8 44:16	47:14
12 86:4,17			80:20
90:7,9,19			

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: merits..motion

merits 40:21	58:20 59:8	mission	42:14
41:3,4	69:9 70:1	25:20	monitored
45:1 48:17	71:10	mixed 67:11	77:8
MERRITT 3:12	78:10	mixing 86:21	monitoring
4:12 31:20	79:1,6,14	mobile 12:25	23:16
mess 7:20	80:5	17:22 44:2	Montgomery
met 20:21	86:10,20	modern 25:14	14:11,21
22:22	87:15	modification	43:24
26:23	88:13	33:11	month 15:6
44:20 46:3	89:13	63:21	months 20:16
49:5 54:14	92:18,22	64:6,17	morning 3:3
met all	93:12	66:5,7	26:23
21:24	million	69:15 82:4	32:22 37:8
metals 85:22	11:17	84:23,25	43:22
86:13	12:8,13,19	modifications	48:9,13
methods 70:4	13:4	33:13	motion 3:8,
metrics	42:13,23	69:11	13 4:14,18
10:15	47:13	modified	27:16,22,
16:23	mind 53:17	63:4 64:1	23 28:8
middlemen	minimum	65:5 73:20	29:12,15,
61:10	67:17	modify	25 31:17,
milestones	mining 46:19	64:15,18	23,25
22:22 24:7	minor 33:13	65:25 68:6	32:3,9
Miller 3:3,	minority	71:17,18,	34:14,20,
13,16,19,	13:22	23 72:14,	25 35:7,
22 4:1,14,	17:23 19:2	15 73:8,9,	20,22,23
18,22 5:1,	minute 82:8	22,24	36:1,3,5,
4,12,15,	88:13	84:10,12,	8,11,13,
19,22,25	93:11	19,20	22,24 37:5
6:6,14	minutes 3:6,	89:2,7,10,	40:21
31:22	9 36:18,23	12	46:10
34:17	59:18	modifying	47:20 48:4
36:9,17	missing	64:11	55:1,2,4,
55:7,12	90:20	monetization	5,8,9
			56:15,21

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: motions..nutrients

58:4, 8, 13, 18, 24 59:14 92:14, 17, 24 93:14, 17 94:6 95:4	nasty 66:21 nation 15:22 22:10, 11 national 17:5 natural 38:18 40:11 nature 18:9 nebulous 69:12 79:16 necessarily 39:8 41:17 79:2 needed 12:2 20:4 23:24 70:15 76:19 negotiated 21:19 neighborhood 50:1 network 12:5 17:17 nice 82:13 NIMBY 38:10 Nitrogen 30:25 nominate 4:13 5:10 nomination 5:8, 13	nominations 4:11 non- governmental 11:15 Nonetheless 46:13 normal 11:23 12:8 65:1 not-in-my-back 38:9 note 47:13 58:1 notebook 59:13 noted 93:9, 16 noteworthy 11:24 notice 64:25 74:3 notification 12:11 Novak 37:16 NOVS 75:10 NPDES 21:19 23:11 35:17 44:13 45:3, 6 NPDES-RELATED 35:11	nuisance 41:8 50:5, 11 53:11 61:2, 5 68:11, 14 nuisances 40:17 60:19 null 72:11 number 6:10 7:19 18:10 28:12 30:2 32:12 35:9 53:6 56:24 60:24 94:8, 14 numbers 69:13, 20 numeric 62:1, 13, 20 64:19 numerous 16:10 nutrient 75:2 76:14, 15, 18, 19 77:5, 7 78:16 80:14 81:4 83:1, 4, 6, 10, 12 86:4, 17 90:7, 9, 19 nutrients
motions 57:21			
move 4:12 18:9 27:18 28:15 30:2 31:20 34:17 36:9 55:3 56:7, 23 58:13, 16 92:18			
moved 3:10 29:13			
moving 44:20			
multi-year 12:24 22:12			
multiple 17:20			
municipal 31:4			
municipalities 60:25			
<hr/> N <hr/>			
narrow 39:18 61:24 66:10			

Alabama Environmental Management Commission
 Commission Meeting on 10/08/2021

Index: objection..options

60:12 79:3	obligation	officials	operation
85:13	38:12	18:18	47:6 51:25
	obtain 11:16	omitted	80:15
<u>0</u>	12:7,19,21	28:16	operations
	20:24	one-on-one	8:2 21:13
objection	44:17	10:1	23:6 24:7,
36:1	obtaining	ongoing	16 47:2,11
objections	11:21	9:15,22	76:14
57:19,22	33:16	10:20 11:6	81:4,9,12
58:5,9	occur 42:14	14:2 18:8	Operator
objective	October 3:4	19:18	24:9
13:11 14:2	odor 62:5	20:22	opinion
16:18 17:7	80:25	22:15 23:3	28:23
18:22,23	81:11,17,	91:25 92:1	opportunities
19:18	19	online 14:1	20:9
20:13	odors 60:19	Opelika	opportunity
21:16	offer 27:14	35:19	15:15 43:8
22:2,13	29:9 37:20	open 73:3	46:21
91:17	offered 27:2	74:17	48:12
objectively	office 11:14	operating	54:17
75:19,21	12:25 44:2	7:4,9,13,	68:17 71:3
objectives	71:1	23 8:3,8,	92:4
7:14,15	officer	17,23 9:3,	opposed 3:19
8:4,7,13,	40:23	11 10:11	5:1,22
18,20,22,	57:7,12,19	11:18	28:5 29:22
24 9:3,5,	63:14,19	14:15	32:6 35:4
7,15	64:3 65:9,	16:12	37:2 56:18
10:10,18	24 72:17	18:15	59:4 94:3
11:1,4,6,7	Officer's	19:21	95:12
16:9	57:22	20:20	opposing
17:10,11	58:6,9,14	21:10,11	48:20
18:1,4,11,	65:23	23:4	opposition
15 19:22	81:22,25	24:18,21	36:3
20:21 21:9	82:1 92:15	25:1,6,23	options 66:3
23:3,5,17		55:16	79:25
24:5,17,20			
25:2			

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: oral..permanent

oral 34:1	output 22:7	90:24	penetrate
35:21	outreach	participate	38:21
36:7,15,23	8:11 19:14	68:24	people 61:9
58:2,4,8,	22:6	participation	66:25 67:4
17,19,25	outweigh	33:12	68:15
59:7	48:20	parties 92:3	82:11
order 57:7,	overapplied	partner	86:16
13,19,23	86:6	37:16	percent
58:6,10,14	overapplying	party 10:22	11:18
64:11 66:5	86:3	44:20	14:24
67:17 68:5	overdue	48:21	perfect
72:21	61:20	pass-through	89:22
74:11 78:4	oversight	12:19	performance
81:21,22,	23:25	passed 60:25	8:11 10:14
25 82:1,6	owned 17:15	61:17	11:5 14:5
92:15,19	Oxide 30:25	past 6:7	16:19,24
93:10,15,		9:4 10:5	18:2,7
18,19		89:20,24	22:11,18
orders 75:10			25:13,15
ordinances	p		26:20
61:1		pathogen	27:10
organization	p.m. 95:17	62:14	performed
14:6 17:3	package	pathogens	77:4
18:3 25:9	31:12 34:5	60:15 62:5	performing
organizations	pandemic	64:21	7:25 10:25
18:19	13:16 22:1	83:13 88:1	13:8 16:16
out-of-state	papers 43:21	patience 4:6	17:3,8
13:21	part 13:1	pause 41:21,	18:4
outfalls	16:19 34:5	22	period 31:6
51:10	41:6 52:24	PE 15:18	33:22 34:3
outlier	63:10	penalty	periods
62:11	65:19 69:6	75:11	61:14
outlining	73:15,18	pending	permanent
49:16	76:13 83:9	31:13	13:12
	84:21		
	85:10,17		

Alabama Environmental Management Commission
 Commission Meeting on 10/08/2021

Index: permission..points

permission	personnel	70:11	22:1, 3
52:11	14:13, 17,	71:20	23:4
permit	25 15:10,	73:6, 9	24:18, 21
33:11, 16	18 16:11	75:20	25:1, 6, 24
35:17, 21	19:6 26:19	petitioners'	76:15 77:5
39:9 40:2	27:8, 17, 19	57:16, 22	78:12, 17
41:4, 23	28:18, 20,	PFAS 21:5	81:4, 9
42:4 43:7	23 29:6, 10	67:14	83:1, 4, 10,
44:13	pertains	ph 88:25	12 86:4
45:3, 4, 10,	35:13	Phds 16:4	90:7, 9, 19
15, 18	80:14	physical	91:9, 16
46:1, 14	pertinent	8:14 11:3,	planned 8:21
47:7 48:25	65:18	10 18:6	13:1 23:7
49:2, 4, 8,	petition	25:18	plans 7:23
24 50:2, 8,	63:7, 15	piece 43:5	21:18 56:3
16 51:1, 4,	69:12	pierce 40:12	76:14 77:8
5, 10, 19	72:15	pit 38:24	80:15
52:1 65:3,	74:1, 7	place 12:15	81:12
4	89:14	41:23	86:17
permittee	petitioner	68:2, 3	plant 83:19
42:3	35:15, 20	80:9	plants 66:20
permittee/ intervenor	37:19	plan 7:4, 5,	67:13
43:25	41:12	7, 9, 10, 12,	88:22
permitting	48:25	13, 22 8:4,	pleased
23:10	56:25 57:4	8, 17, 23	15:19 26:2
33:19 45:6	58:3 59:19	9:3, 6, 9, 11	point 4:10
Perry 3:11	74:3	10:11	20:25 42:1
5:9 26:24	petitioner's	14:15	44:4 55:20
27:18	36:7, 10, 14	16:12	68:25 70:2
29:14	37:7 45:3	18:15, 25	74:18
34:19	49:17	19:4, 21	87:21 89:5
36:12	55:2, 9	20:20	92:23
58:16 80:6	petitioners	21:10, 12,	pointed 71:9
89:1, 8	57:15, 18	17, 24	points 37:21
person 78:10	59:23 66:1		44:9 82:8
	69:1, 21, 24		

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: pollutants..products

pollutants	premise 84:2	previous	56:3
51:6 62:2	85:15	57:20	proceeding
64:20	prepared	primary	40:22
pollution	26:12	61:25	41:2,23
28:14	preparing	prior 10:7	46:25 60:8
30:5,8	24:23	45:25 64:4	64:5 67:23
31:18	prerequisites	76:21	68:2
39:11	48:15 52:3	priority	proceedings
40:5,15	65:14	20:20	3:1 40:25
41:6,7	prerogative	22:12	95:16
42:24 53:2	59:11	private	process 13:4
76:9	present 3:6	17:15	33:11
77:11,22	6:24 16:23	privilege	47:25
91:8	26:24	37:11	61:2,3,18
position	28:21	probability	62:21
29:8 82:2	54:18	81:17	68:10,12
positioning	presentation	problem	71:11
25:8	54:24	81:19	84:22 89:4
possibilities	presented	83:14,23	90:1
67:14	9:20 19:10	85:19 88:6	processes
possibly	34:7 35:1	problems	52:6
55:15	39:16	17:13	processing
posted 9:23	45:25	61:22	17:16
potential	55:18	procedural	66:20
80:19	56:15,22	65:21	83:19
pounds 83:7	presenting	procedurally	produce
power 88:22	16:20	84:6	87:12
practice	preserve	procedure	produced
9:24 16:17	52:5	70:7 82:14	71:25 76:5
practices	prevail	procedures	product
8:9	48:17	46:23	42:24
pre-k 12:3	prevent	65:1,6	productive
21:4	41:25	proceeded	70:10
	60:22		products

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021 Index: professional..pursuing**

88:3,10	promise	81:21,22	province
professional	83:18	91:18	50:13
8:10 14:4,	promote 11:5	92:5,19	provisions
12 15:11,	13:8 14:3	93:8,10,	33:15
22 16:9,13	22:6	14,15,18	public 8:11
program	promoting	proposing	9:17
14:9,11,	8:10 16:16	76:16	12:14,22
14,22	18:7	proposition	15:3 16:24
15:4,5,15	promotion	56:7	19:12,24
17:19	70:24	protect	20:10,18,
21:19,20,	proof 75:21	38:13	24 21:4,5
21,22	propensity	47:23	22:6 24:13
23:11,12,	81:11	Protecting	31:6,8
21 24:2,9,	proper 71:7	38:1	33:12,22,
11 28:14	72:9,16	protection	23 40:16,
30:5,8	78:19,20	45:18	17 41:8
31:1,19	properly	46:15	47:19
32:15,18	68:13	protections	48:22
33:1 34:15	property	77:25	50:11
45:7	38:17 41:1	protective	53:10 61:6
programmatic	50:9,25	49:9	65:6 67:7
11:23 12:9	51:15	provide 9:4	68:8,14
programs	61:11 67:2	10:6 17:22	69:7 71:13
8:15 14:18	75:8 78:25	21:14	74:2,3
16:11,22	propose 33:2	33:6,11,18	77:17 95:2
22:19	proposed	80:21	publication
23:21	9:19 28:12	provided	19:15,19
progress	30:3,6	9:18 72:20	publicly
8:21 10:10	31:18,21	provider	17:15
12:20,23,	32:13,17	22:9	published
25 14:7	33:4,21	providing	12:13
24:19	34:8,14,18	13:5 15:9	pure 39:11
prohibiting	57:23 66:7	18:5 25:18	purpose
51:25	72:21 78:4		57:11 75:1
project 13:6			pursuing

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: push..Recovery

29:1	80:6,17	85:10,17	38:8 42:2
push 69:23	87:19	rationalize	64:24
put 47:21	questionable	23:24	89:21
75:7 83:8	79:10	read 3:7	recognized
86:22	questions	63:24	40:3
putting	26:2,4	84:16	recognizes
74:19	31:13	real 47:8	40:14
86:14	34:10,11	50:9,25	recognizing
	39:1 48:5	51:15	25:11
<hr/> Q <hr/>	52:7 70:18	reason 18:10	recommend
	71:4 78:9	43:6	27:7 32:24
quality	quick 49:17	73:22,24	72:18
19:25	54:10 60:7	75:3 76:22	recommendation
21:14	quickly	reasonable	26:19
22:11	37:13	50:11 72:2	27:3,15,17
45:14,19	53:24	reasons 40:1	29:10
46:11,15	quorum 3:6	46:2	57:8,13,
49:9	quote 40:16	recall 83:1	20,23,25
quantity		85:8	58:6,10,15
51:14	<hr/> R <hr/>	recalled	65:24
quarries	raise 3:17	28:16	92:16
49:14	4:24 5:19	recap 9:1	recommendations 27:19
quarry 35:18	16:6 95:9	received	recommending
38:17 40:4	raised 45:23	12:10	29:4,7
47:1 50:1,	58:5,9	24:25 27:2	36:22
9 55:16	raising 28:2	31:9 34:1,	65:22
quarrying	29:20 32:4	3 58:2	recommends
39:6,7	35:1 36:25	recent 17:3	57:16
40:11	56:16 59:2	33:9	reconciliation
question	93:25	recognition	34:4
28:2 32:3	ran 33:22	37:20	record 39:3,
34:25	range 28:25	recognize	14
39:21,22	rate 83:7	15:19 16:1	Recovery
56:14			
68:20			

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: recruit..report

21:23	register	31:19	relief 12:1
recruit	55:19	32:15,18	44:11,17,
13:10,14,	registered	33:2 34:6,	23 46:21
22	75:13	16 45:16	60:1 65:11
recruiting	registration	49:11 51:3	71:21,23
13:20,25	75:15	60:21	relocated
14:1	76:21	61:18,22	33:18
recycling	78:23,24	62:1,10,12	relying
24:11	regs 90:25	63:2,4,24	41:16
red 79:12	regular 8:10	64:19	64:12
86:19	23:18	65:13,18	remain 18:12
reduce 62:5	regularly	66:1,11	60:3
reduced	9:21 16:17	67:3,18,24	remedies
81:19	19:18	68:23	50:21
82:18	25:13	69:25	51:20
reduction	regulate	72:10	remedy 73:16
11:25	12:22 31:4	76:5,7	reminded
reference	51:13,14	83:11	55:25
30:22 85:3	61:18	84:1,4,9	remote 14:23
88:9	regulated	87:25	22:25
references	17:12	88:4,7,8,	removal
53:7	18:17	11 91:15	17:21
referencing	22:21	regulatory	remove
57:20	24:10	23:25	38:18,19,
referred	68:13	33:14 45:8	20
74:19	75:25	75:22	removed
76:12	87:5,8	76:24	54:1,16
reflect 82:6	regulation	reject 66:1	repeat 44:6
refuse 50:18	22:10	related 19:9	45:24
regard 44:21	63:17 64:1	33:9 50:25	replacement
46:3	82:16,19	relationships	23:8 29:2
regional	84:16	8:1 18:14	report 6:10,
13:23	regulations	19:22 21:8	
	28:14	25:17	
	30:5,8,20	relevant	
		16:18	

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: reporting..review

13 7:3,15	requests	11:3,11,21	responsibiliti
10:13	95:1	14:3 18:6	es 37:25
12:15	require	22:5 35:18	responsibility
26:1,8,11,	20:14	36:2 38:1	69:19
12,19,22	41:11,15	40:11	responsive
27:2 86:12	52:2 66:6	41:19	7:24 9:12
reporting	67:3 76:13	43:19,25	rest 6:4
22:18	83:12	44:3	restart
reports	required	respect 53:9	52:15
10:13,21	15:21	respectfully	restate 44:7
24:22	47:22	41:10	RESTORE
represent	78:16	53:16	13:3,5
12:20	84:23	respecting	result 29:2
48:11	requirement	43:17	40:8 42:7
59:23	65:16	respond 71:4	47:15 70:5
representation	requirements	response	results 7:4
42:19	33:6,14,20	3:15,21	17:1 20:19
represented	46:25	4:21 5:3,	retain 15:13
67:22	54:19	24 26:6	27:5
representing	57:10	27:25 28:7	reuse 17:17
37:11	74:5,6	29:18,24	revenue
represents	77:15	32:1,8	42:22
11:18	requires	34:12,23	47:12,16
request	18:3 71:12	35:6 36:3	reversed
35:21	requiring	37:4 48:6	56:4
36:7,10,15	40:2	52:8	review 7:3,
46:9 49:1	reserve	56:12,20	15 10:14
52:20 58:1	43:14	57:21	13:4 28:10
59:6,9	residual	58:11,23	49:18
requested	33:17	69:7 70:19	52:20
60:1 71:23	resource	92:8 93:23	62:17
requesting	11:2 12:24	94:5,11,	76:21
37:19	13:7 21:23	18,22	78:18,23
73:16	resources	95:7,13	
		responses	
		49:16	

Alabama Environmental Management Commission
 Commission Meeting on 10/08/2021

Index: reviewed..section

reviewed 39:4 71:13	Robert 4:6	52:2,5	Sam 6:5
reviewing 24:11 86:17	robust 66:12	63:18	satisfied 66:2 67:8
revise 93:7	role 4:5 41:13	64:12 66:6 71:19,22, 24 72:1,2, 6,19,22	satisfies 48:15
revised 34:6 93:14,15, 18	Ron 30:17	73:1,4,9, 18,21	satisfy 52:3
revisions 33:4,9,13, 21	room 25:3	74:2,11, 12,16,20, 22 75:5,9, 12,14,16, 17,19	schedule 8:19,25 9:18 22:23
Revolving 24:1	route 77:5	76:13	scheduled 9:21 22:15 94:15
rewrite 76:1	routine 25:12	77:13,19, 23,24	scheme 76:24 91:24
Richard 15:24 16:3,5 37:9	Ruby 26:24	78:5,16 79:22	schools 21:4
rights 46:24 50:9,25 51:15	rule 44:15, 18 54:5 63:21 64:7 75:21 79:15,16	80:1,21 84:11,20 89:19 92:5	Schuyler 43:22
rigorous 15:20	ruled 56:2	ruling 65:9	scope 45:5,7 49:23 51:16 52:23
rise 50:12	rulemaking 9:19,22 10:20 20:7 34:5 63:8, 15 69:13 71:7,11 72:16 74:1,7 84:22 89:14,18 90:2 91:18,19	run 38:24 60:19	scrap 17:16, 17
risk 62:11	rules 9:19 23:23 30:9,11,22 31:2,3 45:16 47:24 48:3	s	screen 19:17
risky 56:7		safe 21:20 62:24,25	Scrivener's 31:1
Riverkeeper 56:24 57:4 69:2		safeguards 46:14	seconds 43:14 52:12 53:19
Rivers 56:25 57:5		safety 50:5 salary 28:24 29:8 sales 47:16	section 38:4 53:7

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: secure..solid

secure 23:1	7 74:15	significant	site 39:17
security	88:4	10:8 14:17	76:15 77:2
23:1	sets 7:13	47:9	79:20 81:3
seek 46:19,	Shady 35:18	significantly	90:7,9,10,
21 76:7	shared 7:23	81:19	14,20
seeking	9:8	signify 28:2	91:2,4,6,9
15:10	short 76:12	29:20 32:4	site-by-site
44:12	shortcomings	35:1 36:25	82:21
seeks 44:23	61:21	56:15 59:1	sites 76:24
selling	shot 52:19	93:25 95:9	77:1
76:12	show 6:5	similar	situation
sense 70:14	17:4 43:8,	49:14	39:15
September	9 46:6	59:17	65:21
31:7,8	48:16	63:16	87:22
33:23,24	49:20,22	65:2,7	situations
series 37:21	54:13	simple 64:17	77:6
serve 5:10	showed 91:19	67:16	six-month
26:16	showing	simply 39:15	47:10,14
served 47:19	20:19	41:20 42:5	slides 9:1
53:14	shown 19:16	45:24	slightly
server 23:8	44:19 46:7	50:21 68:4	93:2
service	47:5	simultaneous	slower 13:1
6:15,17	side 11:11	79:13	small 24:4
services	65:21	single 20:14	software
14:1 21:15	66:13,15	33:19	22:14,19
serving 6:6	83:9	SIP 30:25	soil 60:13
session	sides 83:2	sir 26:7	62:8 80:19
94:15	sign 3:20,	68:21 69:2	81:14,18
set 9:15	23 5:2,23	78:15	83:8 85:22
10:10 21:9	28:6 29:23	79:5,19	88:25
24:17 28:9	32:7 35:5	81:23	soils 77:2
38:6 66:6,	37:3 56:19	85:16	solid 17:15
	59:5 94:4	86:23 87:1	23:20
		90:21	

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021 Index: solution..stepped-up**

32:15,18	46:12 62:4	stand 15:25	34:4
33:1,7	67:5	53:21	states 63:3
34:15	71:11,12	66:22	statute
74:23	74:4,8,9,	95:14	53:4,8
solution	13 84:22,	standard	statutes
63:2 67:16	24 90:20	10:14	33:5 38:11
sort 79:15	specifically	16:20	51:2
84:1 85:14	51:8 60:5	standards	statutory
sorted 41:5	74:23	62:4,20	33:9 37:25
sought 75:22	Speed 90:3	64:20	73:19
sounds 30:18	spelled 60:6	66:12	stay 35:21,
63:6 78:12	spot 86:19	88:4,5,12	22,23
89:13	spray 61:11	standing	36:1,4,8
source 38:15	sprayed	13:3	37:19,22
86:25	78:20	Starnes	40:1,21,25
87:2,5	spraying	37:10	42:22
sources	80:4	start 41:18	43:10,13
17:20	spread 78:13	67:21 86:6	44:12,18
Southern	79:4	89:4	46:10,19
59:22	spreading	started 92:1	47:6,15,22
speak 48:12	60:11	state 10:15	48:4,14,
65:13 95:2	66:17	13:20	18,19,21,
speakers	67:2,4	17:18	24 49:7
79:13	78:11	18:18 24:1	51:18,23,
special	88:15	33:5,6	25 52:4
45:20	spring 91:22	40:15	54:6,13
specialized	staff 14:12	47:17	55:2,4,10,
14:22 15:9	stakeholder	53:10 62:9	15,17
specific	19:1 25:17	64:23	stench 80:21
7:13 8:15	stakeholders	72:3,7,10	82:13
11:8 13:19	8:1 18:14	73:1 76:3	Stephen
19:1 20:3,	19:23 21:8	79:16	32:23
25 21:18	Stan 37:15	87:23	stepped
		stated 44:5	61:16
		statement	stepped-up

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: steps..talked

24:1	64:25	41:24	supposedly
steps 15:21	71:13	succeed	42:13
stopped 47:2	74:5,22	45:14	Supreme 56:4
storage	75:9,11	succeeding	surface 39:8
23:2,8,12	77:22,24	25:25	40:7 45:13
straight	80:2	success 45:1	51:8,13
43:21	subjective	49:21	53:18
Strategic	62:24	successful	81:15,16
7:7,10,11,	submit 29:5	11:21	surrounding
22 9:9	41:10	25:23	62:9
stream 38:14	62:16,22,	successfully	surveys 53:9
streaming	23 65:11	11:13	swap 6:2
20:7	68:15	12:16	system 20:23
streams	69:12 74:4	suffer 46:8	23:2,10
41:14	78:11,16,	48:18	24:8
strict 80:7,	22 79:7	51:22	systems 8:16
10	83:10	suggest	12:2,17
strictly	84:15	36:17	21:6
43:3 64:13	89:14 90:6	39:23 68:1	22:19,22
strike 72:8	submitted	69:9	88:21
73:7	42:11	suggesting	
stringent	49:15 69:6	41:20	<hr/> T <hr/>
49:13	78:3 81:25	53:1,12	table 25:3
students	subsection	suggestion	56:8
13:10	53:6	69:17	takes 12:15
stuff 67:1	subsoil	supply 69:22	76:16
78:11 79:4	38:20	support 14:5	taking 67:10
83:17	substance	35:23	talented
subgoals	72:15	37:22	13:11
11:1	substantial	supported	talk 53:18
subject	44:25	78:5	90:4
33:22 51:7	48:16	supposed	talked 80:18
	49:3,20	84:4 86:5	82:25
	substantive		
	31:11 39:1		

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021 Index: talking..transformed**

83:16	text 64:9,	threaten	told 82:19
84:21	13 84:16	77:17	84:20
talking	thankless	threats	tolerating
76:25	6:18	45:13	68:10
80:24	theoretical	tilling 62:7	Tom 5:5 6:2
82:10 86:1	45:13	81:14	tons 83:7
tangible	thing 3:23	82:12	tools 17:20
17:10	53:17	time 8:6	20:24 22:6
Tanks 23:12	61:25	11:8 28:9	24:10
tax 42:22	63:14 71:6	36:10,15,	25:19
47:16	72:9 73:12	19 37:21	topics 10:17
Taylor 37:16	91:14 93:6	41:2	topsoil
44:1	things 38:7	43:13,17	38:19
technical	40:19	54:25	total 12:6,
33:13	41:14,19,	56:14	12 14:13
technology	24 43:3	59:17	totals 42:25
8:16 17:21	60:16	61:14,17	track 17:1
23:14	62:7,8	68:1,14,16	52:17
telework	66:21	85:5,7	tracking
14:25	70:13	92:12,13,	22:18
teleworking	71:8,17	19,21	23:15
14:19	72:5 74:8	timer 54:23	Trading
telling 68:5	76:11	times 10:1	30:25
69:15	79:24	81:11 87:3	traffic 50:5
term 25:9	80:20	tire 17:16,	52:22
terms 42:22	81:13	18	train 14:22
49:11,13	82:12	today 15:19	trained 19:7
51:1,7	86:1,19	32:24 34:7	training
63:22 80:7	90:11	44:10	14:9,16
tested 67:20	91:24	51:18	15:9 19:5
testing 12:3	Thomas 3:24	66:22	trains 14:11
21:3,5	4:13,15,23	70:24 95:2	transformed
	95:3	today's 7:3,	
	thought	14 26:1	
	91:11	Todd 71:1	

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: traveling..violated

83:21	unanticipated	unreasonably	utilizing
traveling	94:21	77:17	19:23
63:18	unauthorized	unrest 61:7	_____
treating	74:17	unring 43:11	v
62:4	Underground	unsubstantiate	valid 50:3
treatment	23:12	d 42:12	validity
67:13	underlie	untimely	50:8 52:1
tremendous	41:24	58:1	variables
60:18,24	underneath	update 10:7,	90:17
trend 13:25	38:21	21 19:8,18	variances
trial 56:2	understand	24:22	73:10
tributaries	59:25 60:3	updated 7:7	77:13,14
51:9	61:10	16:20 33:8	vegetation
true 84:9	understanding	updates 17:4	38:19
trustee	27:12 85:3	23:22	venue 71:7
41:13	undertakings	updating	Verification
turn 79:17	25:24	91:14	27:11
turns 56:6	Unified 7:7,	upgrade	versus
type 57:14	10 9:8	12:24	35:10,14
60:19 80:4	unique 38:16	20:12	57:1,6
82:5 86:19	universe	upgrades	vet 41:23
91:7,8	76:6	8:16	Vice- 6:1
types 33:12	universities	upholding	Vice-chair
62:23	13:21,24	51:19	5:7,8,11
typical 17:8	University	upset 61:9	Vice-chairman
typically	14:11,21	urge 66:10	4:3
60:14	unmitigated	73:9	victory 6:20
_____	80:21	urgency	Video 17:12
U	unnamed 51:9	70:14	view 41:9
_____	unreasonable	urges 52:4	61:21
ultimately	50:17	USDA 80:7	violated
38:6 51:18	75:20,22	user 20:13	53:13

**Alabama Environmental Management Commission
Commission Meeting on 10/08/2021**

Index: violates..word

violates	11 34:11,	23:20 31:4	waters 40:7,
75:14	13,20,24	32:15,18	15 51:8,13
77:21	35:4,7,9	33:1,7	53:9
violating	36:11,13,	34:15	waterway
79:15	21 37:2,5	40:9,10	11:25
violation	43:16	60:11	waterways
75:16	48:5,7,10	61:12	60:20 68:8
77:10	52:7,9,13,	64:22	ways 7:21
79:21	16 53:19,	66:19	8:5 61:3,4
visit 39:16	23 54:22	67:12,13	77:3
voice 20:4	55:5,8,21	74:19,20,	website 9:23
void 72:11	56:10,13,	23,24	10:23
73:18	18,21	79:24 80:8	19:17
voluminous	58:12,18,	83:16,17,	20:2,8,12,
30:21	21,24	19,22 84:2	13 24:14,
voluntary	59:4,10,14	85:23 86:9	24
14:9	70:17,20	88:2,9	week 12:14
vote 5:7	85:2,8,20	wastewater	15:1
votes 55:24	86:11	12:2,17	weigh 42:2
	87:13	24:3 67:12	welfare 38:3
	88:18	Watch 24:13	40:17
	91:23	water 12:2,	whichever
	92:6,9,13,	17 16:21,	36:18
	24 93:4,	22 19:25	wildlife
	13,21,24	21:6,19,	40:18
wait 3:23	94:3,6,12,	20,21	win 48:25
52:14	19,23	23:11	withdrawn
88:13	95:4,8,12,	24:2,13	51:14
Walters	14	38:15,23	witnesses
4:13,15,23	wanted 4:5	39:8,10	54:19
5:5 6:3	76:4 91:11	40:5 41:6	word 65:17
26:4,7,10	Warrior	45:13,19	84:10,12,
27:22	56:24 57:3	46:11,15	14
28:1,5,8	69:2	49:9 53:2	
29:15,19,	waste 16:21	77:21	
22,25	17:15	85:18	
31:16,23	21:22		
32:2,6,9,			

work 7:25	9:4, 16
10:25 13:8	10:1 11:7,
16:6,16,18	12 13:15
17:8 18:5	14:8,15
21:17,18,	18:16
24 22:1,7,	20:15
25 82:22	25:22,23
84:4 91:6	26:17 27:6
	30:23
worked 11:13	61:17 70:8
12:17	89:20,24
	91:16
workforce	94:17
14:4,23	
working 6:21	years 6:7
7:19 14:20	7:8 11:9
18:20	28:22
20:17	30:23 56:1
37:17	60:23 85:4
91:14,20	89:21,25
works 82:22	yesterday
91:1	12:10
write 69:24	you-all
	31:14
writing	60:10
82:18	80:10
written 9:18	you-all's
10:6 27:9	6:17
34:2 62:3,	
20 67:4	
wrong 73:11,	<hr/> Z <hr/>
13,14	zoning 50:20
<hr/> Y <hr/>	
yard 38:9	
year 7:2,3,	
12,23 8:8	

Part B

Attachment Index

Attachment 1 Agenda

**Attachment 2 Order to adopt motion to accept Thomas Walters as Chair and Jay Masingill as Vice Chair
(Agenda Item 2)**

**Attachment 3 Director's Slides
(Agenda Item 3)**

**Attachment 4 Resolution to adopt recommendations of the Personnel Committee
(Agenda Item 5)**

**Attachment 5 Resolution to adopt amendments to ADEM Administrative Code Division 335-3, Air Pollution Control Program Regulations, and Attachment A, Revised Proposed (after comments) Rules
(Agenda Item 6)**

**Attachment 6 Resolution to adopt amendments to ADEM Administrative Code Division 335-13, Solid Waste Program Regulations, and Attachment A, Revised Proposed (after comments) Rules
(Agenda Item 7)**

**Attachment 7 Order to grant Petitioner's Request for Oral Argument
(Agenda Item 8)**

**Attachment 8 Order to deny Petitioner's Motion for Stay
(Agenda Item 8)**

**Attachment 9 Order to: (1) not adopt the Report of the Hearing Officer; (2) adopt the alternate Findings of Fact and Conclusions of Law proposed by the Department, with the Commission's revisions as marked; (3) reject the alternate Findings of Fact and Conclusions of Law proposed by the Petitioners and Intervenors; (4) order that the ADEM Administrative action adopting ADEM Administrative Code ch. 335-13-16 on February 14, 2020, complies with applicable law, statutes, and regulations; and (5) approve the issuance of ADEM Administrative Code ch. 335-13-16
(Agenda Item 9)**

Attachment 1

AGENDA*
MEETING OF THE
ALABAMA ENVIRONMENTAL MANAGEMENT COMMISSION
DATE: October 8, 2021
TIME: 11:00 a.m.
LOCATION: Alabama Department of Environmental Management (ADEM) Building
Alabama Room (Main Conference Room)
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

<u>ITEM</u>	<u>PAGE</u>
1. Consideration of minutes of meeting held on August 13, 2021**	2
2. Elections	2
3. Report from the ADEM Director	2
4. Report from the Commission Chair	2
5. Report and recommendation from the Personnel Committee on the ADEM Director Job Performance Evaluation	2
6. Consideration of proposed amendments to ADEM Administrative Code Division 335-3, Air Pollution Control Program Regulations	2
7. Consideration of proposed amendments to ADEM Administrative Code Division 335-13, Solid Waste Program Regulations	2
8. <u>Lee County Commission, Petitioner v. ADEM, Respondent</u> EMC Docket No. 21-05 (NPDES-Related Matter)	3
9. <u>Black Warrior Riverkeeper, Inc., Petitioner and Alabama Rivers Alliance, Intervenor/Petitioner v. ADEM, Respondent</u> EMC Docket No. 20-02	3
10. Other business	3
11. Future business session	3
PUBLIC COMMENT PERIOD	3
Brief statements by members of the public registered to speak	3

* The Agenda for this meeting will be available on the ADEM website, www.adem.alabama.gov, under Environmental Management Commission.

** The Minutes for this meeting will be available on the ADEM website under Environmental Management Commission.

1. CONSIDERATION OF MINUTES OF MEETING HELD ON AUGUST 13, 2021

2. ELECTIONS

The Commission will elect a Commission Chair and Vice Chair.

3. REPORT FROM THE ADEM DIRECTOR

4. REPORT FROM THE COMMISSION CHAIR

5. REPORT AND RECOMMENDATION FROM THE PERSONNEL COMMITTEE ON THE ADEM DIRECTOR JOB PERFORMANCE EVALUATION

The Personnel Committee will provide its report and present a recommendation on the ADEM Director Job Performance Evaluation to the Commission for consideration.

6. CONSIDERATION OF PROPOSED AMENDMENTS TO ADEM ADMINISTRATIVE CODE DIVISION 335-3, AIR POLLUTION CONTROL PROGRAM REGULATIONS

The Commission will consider proposed amendments to ADEM Administrative Code Rules 335-3-8-.72, 335-3-10-.01, 335-3-10-.02, 335-3-10-.03, 335-3-11-.01, 335-3-11-.03, 335-11-.06, 335-3-11-.07, and Appendix C, and to add Rules 335-3-19-.01 through 335-3-19-.05. Revisions to the Division 3 Code are being proposed to incorporate by reference changes to the EPA's New Source Performance Standards (NSPS), and National Emissions Standards for Hazardous Air Pollutants (NESHAPs). Chapter 335-3-19 is being revised to include EPA's amendments to the Emissions Guidelines and Compliance Times for Municipal Solid Waste Landfills. Revisions are being made to Chapter 335-3-8 to correct and clarify monitoring requirements under the NOx SIP call as promulgated by EPA. Appendix C is being proposed for revision to reflect EPA's amendments to New Source Performance Standards and National Emissions Standards for Hazardous Air Pollutants as proposed to adopt by reference. Chapter 335-3-8 is considered part of the federally-enforceable State Implementation Plan (SIP). Revisions to this Chapter are proposed to be incorporated into Alabama's SIP. The Department held a public hearing on the proposed amendments on September 8, 2021.

7. CONSIDERATION OF PROPOSED AMENDMENTS TO ADEM ADMINISTRATIVE CODE DIVISION 335-13, SOLID WASTE PROGRAM REGULATIONS

The Commission will consider proposed amendments to ADEM Administrative Code Division 335-13, Solid Waste Program Regulations. Revisions to ADEM Administrative Code Division 335-13 are being proposed to ensure consistency with State and Federal statutes and provide clarification of State requirements for the management of solid wastes. These changes include updated language to incorporate recent statutory revisions related to alternate cover material, changes to the permit modification process to provide greater public participation for certain types of modifications, and minor technical revisions to clarify certain regulatory requirements. The provisions for obtaining a permit for landfill units, composting facilities, and coal combustion residual (CCR) facilities were relocated to Chapter 5 to provide a single location for all permitting requirements. The Department held a public hearing on the proposed amendments on September 7, 2021.

8. LEE COUNTY COMMISSION, PETITIONER V. ADEM, RESPONDENT, EMC DOCKET NO. 21-05 (NPDES-RELATED MATTER)

The Commission will consider the Motion for Stay and request for oral argument on the Motion for Stay filed with Petitioner Lee County Commission's appeal/request for hearing regarding ADEM's issuance of NPDES Permit AL0084191 on August 30, 2021, to CreekWood Resources, LLC, Shady Grove Quarry, Opeika, Alabama.

9. BLACK WARRIOR RIVERKEEPER, INC., PETITIONER AND ALABAMA RIVERS ALLIANCE, INTERVENOR/ PETITIONER V. ADEM, RESPONDENT, EMC DOCKET NO. 20-02

The Commission will consider the Hearing Officer's Order and Recommendation, in which the Hearing Officer recommends that the Commission deny the Petitioners' appeal of the Department's rules and regulations ("Rules") concerning land application of certain biosolids and other materials defined in the Rules as beneficial materials. The Rules are codified in ADEM Administrative Code r. § 335-13-16, entitled, "Requirements for Beneficial Use of By-Product Materials for the Purpose of Land Application." The Hearing Officer finds in his Order and Recommendation that the Commission has no jurisdiction over an appeal of the type the Petitioners brought in this case.

10. OTHER BUSINESS

11. FUTURE BUSINESS SESSION

PUBLIC COMMENT PERIOD

BRIEF STATEMENTS BY MEMBERS OF THE PUBLIC REGISTERED TO SPEAK

Members of the public that wish to make a brief statement at a Commission meeting may do so by first signing in on a register maintained by the Commission office prior to each regularly scheduled meeting. The register will close ten minutes prior to convening each meeting of the Commission. Following completion of all agenda items, the Commission Chair will call on members of the public wishing to make a statement in the order their names appear on the register. Speakers are encouraged to limit their statement to matters that directly relate to the Commission's functions. Speakers will be asked to observe a three minute time limit. While an effort will be made to hear all members of the public signed on the register, the Commission may place reasonable limitations on the number of speakers to be heard. (Guideline 11, Guidelines for Public Comment).

The Guidelines for Public Comment are used in the application of ADEM Administrative Code 335-2, Environmental Management Commission Regulations, Rule 335-2-3-.05, Agenda and Public Participation. The Guidelines for Public Comment serve to educate and inform the public as to how the Commission interprets and intends to apply the Rule. The revised Rule 335-2-3-.05 was effective October 7, 2016.

Attachment 2

BEFORE THE
ENVIRONMENTAL MANAGEMENT COMMISSION
OF THE
ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

MOTION

Accept Thomas Walters as Chair and

Jay Masingill as Vice Chair

ORDER

This cause having come before the Environmental Management Commission pursuant to the above motion, and having considered the same, the Commission hereby ORDERS, ADJUDGES, and DECREES as follows:

1. That the above motion is hereby adopted; and
2. That this action has been taken and this Order shall be deemed rendered effective as of the date shown below.

Environmental Management Commission Order
Page 2

ISSUED this 8th day of October 2021.

APPROVED:



Commissioner



Commissioner



Commissioner



Commissioner



Commissioner



Commissioner

Commissioner

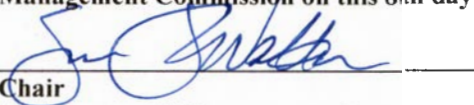
DISAPPROVED:

Commissioner

Commissioner

Commissioner

This is to certify that this Order is a true and accurate account of the actions taken by the Environmental Management Commission on this 8th day of October 2021.



Chair
Environmental Management Commission
Certified this 8th day of October 2021

Attachment 3



Alabama Department of Environmental Management

Shared AEMC / ADEM Plan Goals

1. Effective and Responsive Commission
2. High Performing Work Environment
3. Credible Relationships with External Stakeholders
4. Efficient and Effective Departmental Operations



Alabama Department of Environmental Management

1. Effective and Responsive Commission

- Information on proposed rulemaking
- Information on current environmental policy issues
- Regular updates on Operating Plan progress
- Provide performance metrics



Alabama Department of Environmental Management

2. High Performing Work Environment

- Financial and physical resources
 - Stable state-sourced funding - \$4 mil. Gen Fund
 - Obtain other funding sources - \$1.6 mil. Grants
 - Pass through DW / WW / BIG - \$2.3 mil. Grants
 - Mobile facilities - \$5.9 mil. RESTORE Act



Alabama Department of Environmental Management

High Performing Work Environment

- Human resources
 - Recruit interns & co-ops
 - Recruit minority & disadvantaged univ. students
 - Professional development of personnel
 - Specialized leadership training
 - Professional accreditation training
 - Professional accreditation recognition
 - Certified Public Manager training
 - Remote workforce management training

High Performing Work Environment

- Human resources
 - Recruit interns & co-ops
 - Recruit minority & disadvantaged univ. students
 - Professional development of personnel
 - Specialized leadership training
 - Remote workforce management training
 - Certified Public Manager training
 - Professional accreditation training
 - Professional accreditation recognition

High Performing Work Environment

- Data driven performance measurement
- Promote innovation
 - Video education reg. industry compliance issues
 - Public / Private scrap tire network
 - Comprehensive anti-litter program
 - Mobile classroom



Alabama Department of Environmental Management

3. Credible Relationships with External Stakeholders

- Engage private sector, NGOs, Fed & State
- Community engagement
 - Environmental Justice training for all personnel
 - Diversity, equity, inclusion training personnel
 - Document community engagement



Community Engagement

ADEM is committed to keeping all residents of Alabama informed and involved regarding the environmental activities in their local communities

Updated August 2021



Alabama Department of Environmental Management

Credible Relationships with External Stakeholders

- Encourage website utilization
 - eMaps, eFile, What's Happening in Your County, Water Quality info, eComplaint
 - Expanded livestream meetings & hearings
 - User friendly website upgrades



Alabama Department of Environmental Management

Credible Relationships with External Stakeholders

- Improved public communication
- Other objectives achieved and ongoing
 - Expanding GIS tools
 - Expand environmental educate to all K-12
 - Lead testing public schools, daycare & Pre-K
 - PFAS testing all public water supplies

4. Efficient & Effective Departmental Ops

- Meet or exceed EPA work plans:
 - NPDES Water
 - SDWA Drinking Water
 - CAA Air
 - RCRA Hazardous Waste

Efficient & Effective Departmental Ops

- Emphasis on automation:
 - Develop & implement next generation software by FY 2023
 - Data entry, reporting, performance tracking
 - Integrated with regulated entities & EPA systems
 - FY 2021 milestones met
 - Cyber security enhancements



Alabama Department of Environmental Management

Efficient & Effective Departmental Ops

- Other objectives completed in FY 2021
 - Replacement of IT storage & server equip
 - Implement AEPACS for NPDES & UST
 - Evaluation of drone technology
 - Certification database calibration gases



Alabama Department of Environmental Management

Efficient & Effective Departmental Ops

- Other objectives ongoing in FY 2022
 - Formal & informal communication
 - Implement AEPACS for Land & Air programs
 - Initiate ADEM rule updates
 - State Revolving Fund loan marketing program

Efficient & Effective Departmental Ops

- **New objectives in FY 2022**
 - AEPACS for CAFO & Operator Cert
 - Additional regulated industry compliance tools
 - Recycling program review
 - Drinking water watch public interface on website

Attachment 4

ALABAMA ENVIRONMENTAL MANAGEMENT COMMISSION
RESOLUTION

WHEREAS, the Alabama Environmental Management Commission (Commission) has considered the Compilation of Written Comments for ADEM Director Performance Evaluation and the following recommendations of the Personnel Committee:

1. That the Commission authorize the Personnel Committee Chair to write a letter to the State Personnel Board (Board) and Finance Director to change ADEM Director Salary Range to Pay Grade 91.
2. That the Commission authorize the Personnel Committee Chair to meet with Director LeFleur regarding the Compilation of Written Comments for ADEM Director Job Performance Evaluation and to execute the verification of understanding between the Commission and the Director regarding the evaluation.

WHEREAS, the Commission hereby adopts the above recommendations of the Personnel Committee.

NOW THEREFORE, be it resolved that the Commission requests that the Board and Finance Director change the ADEM Director Salary Range to Pay Grade 91.

IN WITNESS WHEREOF, we have affixed our signatures below on this 8th day of October 2021.

APPROVED:

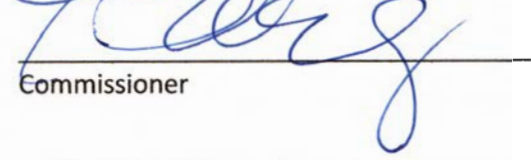

Commissioner


Commissioner


Commissioner


Commissioner


Commissioner


Commissioner

Commissioner


DISAPPROVED:

Commissioner

Commissioner

Commissioner

This is to certify that this Resolution is a true and accurate account of the actions taken by the Environmental Management Commission on this 8th day of October 2021.


Chair
Environmental Management Commission
Certified this 8th day of October 2021

Attachment 5

**ENVIRONMENTAL MANAGEMENT COMMISSION
RESOLUTION**

WHEREAS, the Alabama Department of Environmental Management gave notice of a public hearing on the proposed revisions to ADEM Admin. Code 335-3 of the Department's Air Division – Air Pollution Control Program Rules in accordance with Ala. Code § 22-22A-8 (2006 Rplc. Vol.) and Ala. Code § 41-22-4 (2000 Rplc. Vol.); and

WHEREAS, a public hearing was held before a representative of the Alabama Department of Environmental Management designated by the Environmental Management Commission for the purpose of receiving data, views and arguments on the amendment of such proposed rules; and

WHEREAS, the Alabama Department of Environmental Management has reviewed the oral and written submissions introduced into the hearing record, and has prepared a concise statement of the principal reasons for and against the adoption of the proposed rules incorporating therein its reasons for the adoption of certain revisions to the proposed rules in response to oral and written submissions, such revisions, where appropriate, having been incorporated into the proposed rules attached hereto; and

WHEREAS, the Environmental Management Commission has considered fully all oral and written submissions respecting the proposed amendments and the Reconciliation Statement prepared by the Alabama Department of Environmental Management.

NOW THEREFORE, pursuant to Ala. Code. §§ 22-27-2, 22-27-7, 22-27-9, 22-27-12 (2006 Rplc. Vol.), and Ala. Code. § 41-22-5 (2000 Rplc. Vol.), as duly appointed members of the Environmental Management Commission, we do hereby adopt and promulgate these revisions to division 335-3 [rules 335-3-APP C/ EPA Regulations Reference Documents for New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants (Amend); 335-3-8-.72/NOx Budget Program Monitoring and Reporting (Amend); 335-3-10-.01/General (Amend); 335-3-10-.02/Designated Standards of Performance (Amend); 335-3-10-.03/Appendices to 40 CFR 60 (Amend); 335-3-11-.01/General (Amend); 335-3-11-.03/Appendices to 40 CFR 61 (Amend); 335-3-11-.06/National

**ENVIRONMENTAL MANAGEMENT COMMISSION
RESOLUTION**

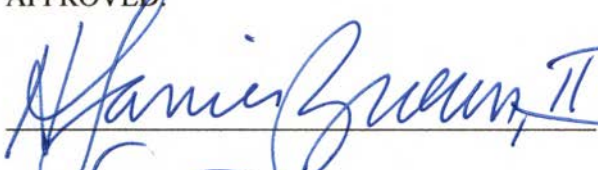

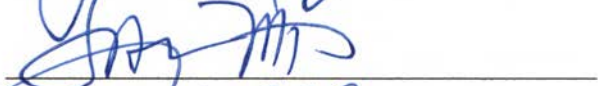
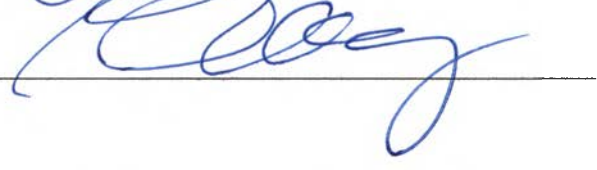

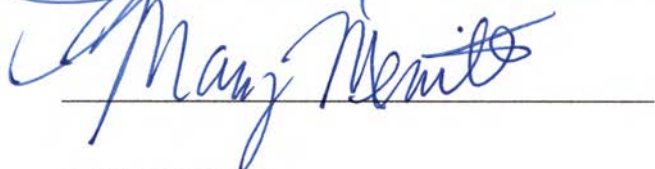
Emission Standards for Hazardous Air Pollutants for Source Categories (Amend); 335-3-11-.07/Appendices to 40 CFR 63 (Amend); 335-3-19-.01/Definitions (New); 335-3-19-.02/General Provisions (New); 335-3-19-.03/Standards for Existing Municipal Solid Waste Landfills (New); 335-3-19-.04/Compliance Schedules (New); 335-3-19-.05/Petition for Alternative Standards and Compliance Schedules (New)] of the Department's Air Division – Air Pollution Control Program Rules, administrative code attached hereto, to become effective forty-five days, unless otherwise indicated, after filing with the Alabama Legislative Services Agency.

**ENVIRONMENTAL MANAGEMENT COMMISSION
RESOLUTION**

ADEM Admin. Code division 335-3 – Air Pollution Control Program

IN WITNESS WHEREOF, we have affixed our signatures below on this 8th day of October 2021.

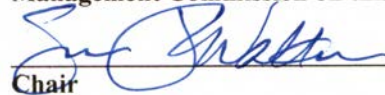
APPROVED:

DISAPPROVED:

_____	_____
_____	_____
_____	_____
_____	_____

This is to certify that this Resolution is a true and accurate account of the actions taken by the Environmental Management Commission on this 8th day of October 2021.



Chair
Environmental Management Commission
Certified this 8th day of October 2021

ABSTAINED:

_____	_____
-------	-------

335-3-8-.72 NO_x Budget Program Monitoring and Reporting.

(1) Monitoring and reporting requirements. The owners and operators and, to the extent applicable, the NO_x authorized account representative of each NO_x Budget source and each NO_x Budget unit at the source shall implement a monitoring and reporting system necessary to attribute ozone season NO_x mass emissions to each NO_x Budget Unit at the source and provide a compliance certification report to be received by the Department by the 30th of November following each ozone season:

(a) A NO_x Budget Unit that is required by any regulation or permit, or elects to monitor and report NO_x mass emissions in accordance with 40 CFR Part 75 shall adhere to the monitoring and reporting requirements of 40 CFR Part 75 and the data from the Part 75 monitoring system shall be utilized by the Department.

1. For purposes of a source subject to the monitoring and reporting provisions of Part 75, the definitions in 40 CFR 72.2 shall apply, and the terms “affected unit”, “designated representative”, and “continuous emission monitoring system” (or “CEMS”) in 40 CFR Part 75 shall be replaced by the terms “NO_x Budget unit”, “NO_x authorized account representative”, and “continuous emission monitoring system” (or “CEMS”), respectively, as defined in 335-3-8-.71(2).

(b) A NO_x Budget Unit that elects to monitor and report NO_x mass emissions utilizing a continuous emissions rate monitoring system (CERMS) shall adhere to the QA/QC requirements of 40 CFR Part 60, Performance Specification 2 and 40 CFR Part 60 Appendix F for the NO_x CEMS, 40 CFR Part 60, Performance Specification 3 for a O₂ or CO₂ CEMS, and 40 CFR Part 60, Performance Specification 6 for Stack Gas Flow CEMS. The data from the CEMS shall be utilized by the Department.

(c) A NO_x Budget Unit that is required by any regulation or permit, or elects to operate a NO_x CEMS and is not subject to subparagraph (1)(a) of this rule, shall comply with the applicable monitoring and reporting regulations and utilize the CEMS data in conjunction with one of the following methods:

1. NO_x budget sources utilizing this alternative monitoring option will calculate the NO_x mass emissions (tons) for each ozone season and report the total as part of the compliance certification report to the Department no later

than November 30th following that ozone season. The calculation for NO_x mass emissions shall be as follows:

$$M = (R)*(HI)/2000$$

Where M is the NO_x mass emissions (tons),

R is the NO_x emissions rate (lb/mmBtu)

HI is the heat input (mmBtu)

(i) The NO_x emission rate would be calculated from CEMS measurements using Method 19 in Appendix A of 40 CFR Part 60. For multi-fuel fired units, a worst case F-factor may be utilized for the purpose of calculating the NO_x emission rate;

(i) The heat input shall be calculated by totaling the heating value of the fuels used multiplied by the amount of each respective fuel utilized. The heat input due to the firing of wood waste may be calculated from steam production, less the heat input from other fuels. The calculation method for determining wood waste heat input must be detailed in the monitoring protocol required under subparagraph (e) of this paragraph; and

(ii) Each CEMS monitor shall meet the requirements of 40 CFR Part 60 Appendix B, Performance Specifications 2 and Appendix F.

Or,

2. NO_x budget sources utilizing this alternative monitoring option will calculate the NO_x mass emissions (tons) for each ozone season and report the total as part of the compliance certification report to the Department no later than November 30th following that ozone season. The calculation for NO_x mass emissions shall be as follows:

$$M = 0.1194(R)*(Q)*t_{op}/2000$$

Where M is the NO_x mass emissions (tons),

R is the NO_x emissions concentration (ppm_w)

Q is the flow rate (mmscf/hr), and

t_{op} is the operating time (hr).

(i) The NO_x emission concentration shall be determined from CEMS measurements.

(ii) The flow rate shall be determined by:

(I) The average flow rate of the unit under normal operating conditions as demonstrated by previous 40 CFR Part 75 monitoring, or

(II) The flow rate of the unit as determined by 40 CFR Part 60, Appendix A, Methods 1-4.

(iii) Each CEMS monitor shall meet the requirements of 40 CFR Part 60 Appendix B, Performance Specifications 2 and Appendix F.

(d) ~~(iv)~~ A NO_x Budget Unit that is not subject to subparagraph (1)(a), (1)(b) or (1)(c) shall calculate the NO_x concentration-mass emissions (tons) for each ozone season and report the total as part of the compliance certification report to the Department no later than November 30th following that ozone season. The calculation for NO_x concentration-mass emissions shall be that of rule 335-3-8-.72(1)(c)2. with use of the following:

1. For sources which have previously operated CEMS subject to the requirements of 40 CFR Part 75:

(i) The average NO_x concentration of the unit under normal operating conditions as demonstrated by previous 40 CFR Part 75 monitoring,

(ii) The average flow rate of the unit under normal operating conditions as demonstrated by previous 40 CFR Part 75 monitoring,

(iii) If the unit operating parameters, such as fuel composition, change beyond normal conditions from that of the Part 75 monitoring, additional testing may be required to verify the NO_x concentration and the flow rate, or to establish new NO_x concentration and flow rate factors.

2. For units which do not have NO_x concentration and flow rate factors from Part 75 CEMS, initial testing utilizing 40 CFR Part 60, Appendix A, Methods 1-4 and 7 or 7e shall be performed, followed by at least two annual tests which shall be used to establish NO_x concentration and flow rate factors. If the unit operating parameters, such as fuel composition, change beyond normal conditions during the initial testing, additional testing may be required to verify the NO_x concentration and the flow rate, or to establish new NO_x concentration and flow rate factors, as approved by the Department.

3. Any source subject to the requirements of subparagraph (d) of this paragraph must include in the annual report required under subparagraph (2)(a) of this rule a statement of whether the unit operating parameters were within the historical parameters used to establish the appropriate NO_x concentration and flow rate factors.

4. The monitoring protocol would be approved if the Department finds that the protocol is designed to provide all information necessary to accurately attribute NO_x emissions to the unit, and would be sufficient to determine whether the sources are collectively in compliance with the State of Alabama NO_x Budget.

5. ~~After the testing required under subparagraph (1)(d)2 of this rule has been completed, a~~ test in accordance with the methods used in 40 CFR Part 60, Appendix A, Methods 1-4 and 7 or 7E shall be performed at least once every five years to verify historical NO_x concentration and flow rate factors used to compute NO_x mass emissions. For units subject to the testing required under subparagraph (1)(d)2. of this rule, five years begins as of the date of completion of the testing required under subparagraph (1)(d)2. For units that previously operated a CEMS under (1)(d)1., five years begins as of the date the CEMS ceases to be used.

(e) ~~(v)~~ A monitoring protocol shall be submitted for review and approval by the Department for each NO_x Budget Unit. Minimum information in the monitoring protocol would be the monitoring method in subparagraphs (a), (b), or (c) of this paragraph; the normal operating conditions of the unit, including fuel type and operating rate; and any unit specific NO_x concentration factors and flow rate factors utilized to calculate emissions. Additional information such as multiple operating scenarios or missing data substitution methods should be included as relevant.

1. For units which commenced operation prior to May 1, 2020, the pre-existing monitoring requirements must be met until a monitoring protocol is approved by the Department.

2. For units which commence operation on or after May 1, 2020, a monitoring protocol must be approved by the Department prior to operation during the initial ozone season.

3. Whenever the monitoring is changed, the pre-existing monitoring requirements shall be met until a new monitoring protocol is approved by the Department.

(2) Annual Compliance Report and Certification.

(a) For each control period in which one or more NO_x Budget units at a source are subject to the NO_x Budget program, the NO_x authorized account representative of the source shall submit to the Department by November 30 of that year, a compliance certification report for each source covering all such units.

1. The NO_x authorized account representative shall include in the compliance certification report under subparagraph (a) of this paragraph identification of each NO_x Budget unit, all NO_x mass emissions produced by the given unit for the control period covered by the report, supporting documentation, and the following certifications:

(i) ~~the~~The NO_x authorized account representative shall certify, based on reasonable inquiry of those persons with primary responsibility for operating the source and the NO_x Budget units at the source in compliance with the NO_x Budget Program, whether each NO_x Budget unit for which the compliance certification is submitted was operated during the calendar year covered by the report in compliance with the requirements of the NO_x Budget Program applicable to the unit, including whether the monitoring plan that governs the unit has been maintained to reflect the actual operation and monitoring of the unit, and contains all information necessary to attribute NO_x emissions to the unit, in accordance with rule 335-3-8-.72(1).

Author: Ronald W. Gore

Statutory Authority: Code of Alabama 1975, §§22-28-10, 22-28-11, 22-28-14, 22-28-18, 22-28-20, 22-28-22, 22-22A-5, 22-22A-6, and 22-22A-8.

History: Filed: February 28, 2020; Effective: April 13, 2020; **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

335-3-10-.01 General.

(1) The Environmental Protection Agency Regulations, and the Appendices applicable thereto, governing Standards of Performance for New Stationary Sources (40 CFR 60 and Appendices) designated in rules 335-3-10-.02 and -.03 are incorporated by reference as they exist in 40 CFR 60 (July 1, ~~2019~~2021), as amended by the word or phrase substitutions given in rule 335-3-10-.04. References for specific documents containing the complete text of subject regulations are given in Appendix C to these Regulations. Authorities which are not delegable to the state are also listed in Appendix C.

[NOTE: The standards pertaining to the Consolidated Federal Air rule are located in chapter 335-3-11A.]

(a) The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

(2) The emission standards in this chapter shall supercede the emission standards in chapters 335-3-3, -4, -5, -6, -7, and -8 if both of the following criteria are met:

(a) the source category is subject to the regulations in this chapter for the specific pollutants to which an emission standard under this chapter applies, and

(b) the emission standard under chapters 335-3-3, -4, -5, -6, -7, and -8 is more stringent than the emission standard in this chapter for the specific pollutants regulated.

(3) Definitions. For purposes of this chapter, the definitions listed in 40 CFR §60.2 will apply.

Author:

Statutory Authority: Code of Alabama 1975, §§22-28-14, 22-22A-5, 22-22A-6, 22-22A-8, and 41-22-9.

History: Effective: May 25, 1976. **Amended:** Effective: February 13, 1985.

Amended: Effective: June 9, 1987. **Amended:** Effective: June 16, 1988. **Amended:** Effective: September 21, 1989. **Amended:** Effective: November 1, 1990.

Amended: Effective: March 28, 1991. **Amended:** Effective: July 31, 1991.

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Amended: Effective: December 28, 1993. **Amended:** Effective: April 27, 1995.

Amended: Effective: November 21, 1996. **Amended:** Effective: September 25, 1997.

Amended: Effective: March 27, 1998. **Amended:** Effective: July 15, 1999.

Amended: Effective: January 13, 2000. **Amended:** Effective: September 7, 2000.

Amended: Effective: March 14, 2002. **Amended:** Effective: October 3, 2002.

Amended: Effective: April 3, 2003. **Amended:** Effective: October 2, 2003. **Amended:**

Effective: March 22, 2005. **Amended:** Effective: December 12, 2005. **Amended:**

Effective: July 11, 2006. **Amended:** Effective: April 3, 2007. **Amended:** Effective:

January 22, 2008. **Amended:** Effective: August 5, 2008. **Amended:** Effective: January 19, 2009. **Amended:** Effective: March 30, 2010. **Amended:** Effective: May 23, 2011. **Amended:** Effective: May 29, 2012. **Amended:** Effective: January 22, 2013. **Amended:** Effective: May 28, 2013. **Amended:** Effective: September 24, 2013. **Amended:** Effective: November 24, 2015. **Amended:** Effective: June 2, 2017. **Amended:** Filed: August 21, 2018; **Amended:** Effective: October 5, 2018. **Amended:** Filed: February 28, 2020; Effective: April 13, 2020. **Amended:** **Proposed: July 20, 2021.**

335-3-10-.02 Designated Standards of Performance.

(1) Subpart A - General Provisions.

(2) Subpart D - Fossil Fuel-Fired Steam Generators for which construction is commenced after August 17, 1971.

(a) Subpart Da - Electric Utility Steam Generating Units for which construction is commenced after September 18, 1978.

(b) Subpart Db - Industrial-Commercial-Institutional Steam Generating Units.

(c) Subpart Dc - Small Industrial-Commercial-Institutional Steam Generating Units.

(3) Subpart E - Incinerators.

(a) Subpart Ea - Municipal Waste Combustors for which construction is commenced after December 20, 1989 and on or before September 20, 1994.

(b) Subpart Eb - Municipal Waste Combustors for which construction is commenced after September 20, 1994.

(c) Subpart Ec - Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for which construction is commenced after June 20, 1996.

(4) Subpart F - Portland Cement Plants.

(5) Subpart G - Nitric Acid Plants.

(a) Subpart Ga - Nitric Acid Plants for which Construction, Reconstruction, or Modification Commenced After October 14, 2011.

(6) Subpart H - Sulfuric Acid Plants.

(7) Subpart I - Hot Mix Asphalt Facilities.

(8) Subpart J - Petroleum Refineries.

(a) Subpart Ja - Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After May 14, 2007.

(9) Subpart K - Storage Vessels for Petroleum Liquids constructed after June 11, 1973 and prior to May 19, 1978.

(a) Subpart Ka - Storage Vessels for Petroleum Liquids constructed after May 18, 1978.

(b) Subpart Kb - Volatile Organic Liquid Storage Vessels (Including

Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 12, 1984.

(10) Reserved.

(11) Reserved.

(12) Subpart L - Secondary Lead Smelters.

(13) Subpart M - Secondary Brass and Bronze Ingot Production Plants.

(14) Subpart N - Primary Emissions from Basic Oxygen Process Furnaces for which construction is commenced after June 11, 1973.

(a) Subpart Na - Standards of Performance for Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for which construction is commenced after January 20, 1983.

(15) Subpart O - Sewage Treatment Plants.

(16) Subpart P - Primary Copper Smelters.

(17) Subpart Q - Primary Zinc Smelters.

(18) Subpart R - Primary Lead Smelters.

(19) Subpart S - Primary Aluminum Reduction Plants.

(20) Subpart T - Wet Process Phosphoric Acid Plants.

(21) Subpart U - Superphosphoric Acid Plants.

(22) Subpart V - Diammonium Phosphate Plants.

(23) Subpart W - Triple Superphosphate Plants.

(24) Subpart X - Granular Triple Superphosphate Storage Facilities.

(25) Subpart Y - Coal Preparation Plants.

(26) Subpart Z - Ferroalloy Production Facilities.

(27) Subpart AA - Steel Plants (Electric arc furnaces and dust-handling equipment).

(a) Subpart AAa - Steel Plants: Electric Arc Furnaces and Argon Oxygen-Decarburization Vessels.

(28) Subpart BB - Kraft Pulp Mills.

(a) Subpart BBa - Standards of Performance for Kraft Pulp Mill Affected

Sources for Which Construction, Reconstruction, or Modification Commenced After May 23, 2013.

(29) Subpart CC - Standards of Performance for Glass Manufacturing Plants.

(30) Subpart DD - Grain Elevators.

(31) Subpart EE - Surface Coating of Metal Furniture.

(32) Subpart FF - Reserved.

(33) Subpart GG - Stationary Gas Turbines.

(34) Subpart HH - Lime Manufacturing Plants.

(35) Subpart II - Reserved.

(36) Subpart JJ - Reserved.

(37) Subpart KK - Lead-Acid Battery Manufacture.

(38) Subpart LL - Metallic Mineral Processing Plants.

(39) Subpart MM - Automobile and Light-Duty Truck Surface Coating Operations.

(40) Subpart NN - Phosphate Rock Plants.

(41) Subpart OO - Reserved.

(42) Subpart PP - Ammonium Sulfate Manufacturing.

(43) Subpart QQ - Graphic Arts Industry: Publication Rotogravure Printing.

(44) Subpart RR - Pressure Sensitive Tape and Label Surface Coating Industry.

(45) Subpart SS - Industrial Surface Coating - Large Appliances.

(46) Subpart TT - Metal Coil Surface Coating Operations.

(47) Subpart UU - Asphalt Processing and Asphalt Roofing Manufacture.

(48) Subpart VV - Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006.

(a) Subpart VVa - Equipment Leaks of VOC in the Synthetic Organic

Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After November 7, 2006.

(49) Subpart WW - Beverage Can Surface Coating Industry.

(50) Subpart XX - Bulk Gasoline Terminals.

(51) Subpart YY - Reserved.

(52) Subpart ZZ - Reserved.

(53) Subpart AAA - Reserved.

(54) Subpart BBB - Rubber Tire Manufacturing Industry.

(55) Subpart CCC - Reserved.

(56) Subpart DDD - Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry.

(57) Subpart EEE - Reserved.

(58) Subpart FFF - Flexible Vinyl and Urethane Coating and Printing.

(59) Subpart GGG - Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After January 4, 1983, and on or Before November 7, 2006.

(60) (a) Subpart GGGa - Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After November 7, 2006.

(61) Subpart HHH - Synthetic Fiber Production Facilities.

(62) Subpart III - VOC Emissions from SOCFI Air Oxidation Unit Processes.

(63) Subpart JJJ - Petroleum Dry Cleaners.

(64) Subpart KKK - Equipment Leaks of VOC from Onshore Natural Gas Processing Plants for which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011.

(65) Subpart LLL - Standards of Performance for Onshore Natural Gas Processing for which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011: SO₂ Emissions.

(66) Subpart MMM - Reserved.

(67) Subpart NNN - VOC Emissions from SOCFI Distillation Operations.

- (68) Subpart OOO - Nonmetallic Mineral Processing Plants.
- (69) Subpart PPP - Wool Fiberglass Insulation Manufacturing Plants.
- (70) Subpart QQQ - VOC Emissions from Petroleum Refinery Wastewater Systems.
- (71) Subpart RRR - Volatile Organic Compound (VOC) Emissions from the Synthetic Organic Chemical Manufacturing Industry Reactor Processes.
- (72) Subpart SSS - Magnetic Tape Manufacturing Industry.
- (73) Subpart TTT - Industrial Surface Coating; Plastic Parts for Business Machines.
- (74) Subpart UUU - Calciners and Dryers in Mineral Industries.
- (75) Subpart VVV - Polymeric Coating of Supporting Substrates.
- (76) Subpart WWW - Municipal Waste Landfills.
- (77) Subpart XXX - Municipal Solid Waste Landfills that commenced construction, reconstruction, or modification after July 17, 2014.
- (78) Subpart YYY - Reserved.
- (79) Subpart ZZZ - Reserved.
- (80) Subpart AAAA – Small Municipal Waste Combustion Units for which construction is commenced after August 30, 1999 or for which modification or reconstruction is commenced After June 6, 2001.
- (81) Subpart BBBB - Reserved.
- (82) Subpart CCCC - Commercial and Industrial Solid Waste Incineration Units for which construction is commenced after June 4, 2010 or for which modification or reconstruction is commenced on or after August 7, 2013.
- (83) Subpart DDDD – Reserved.
- (84) Subpart EEEE – Reserved.
- (85) Subpart FFFF – Reserved.
- (86) Subpart GGGG – Reserved.
- (87) Subpart HHHH – Reserved.
- (88) Subpart IIII – Stationary Compression Ignition Internal Combustion Engines.

(89) Subpart JJJJ – Stationary Spark Ignition Internal Combustion Engines.

(90) Subpart KKKK – Stationary Combustion Turbines.

(91) Subpart LLLL – New Sewage Sludge Incineration Units.

(92) Subpart OOOO – Crude Oil and Natural Gas Production, Transmission and Distribution.

(91)(a) Subpart OOOOa – Crude Oil and Natural Gas Facilities for which construction, modification or reconstruction commenced after September 18, 2015.

(93) Subpart PPPP – Reserved.

(94) Subpart QQQQ – Reserved.

(95) Subpart RRRR – Reserved.

(96) Subpart SSSS – Reserved.

(97) Subpart TTTT – Greenhouse Gas Emissions from Electric Generating Units.

Author:

Statutory Authority: Code of Alabama 1975, §§22-28-14, 22-22A-5, 22-22A-6, 22-22A-8, and 41-22-9.

History: Effective Date: May 25, 1976. **Amended:** Effective: June 23, 1981; **Amended:** Effective: February 13, 1985; **Amended:** Effective: April 15, 1987; **Amended:** Effective: June 16, 1988; **Amended:** Effective: September 21, 1989; November 1, 1990; **Amended:** Effective: March 28, 1991; **Amended:** Effective: July 31, 1991; **Amended:** Effective: September 19, 1991; **Amended:** Effective: October 24, 1991; **Amended:** Effective: December 28, 1993; **Amended:** Effective: April 27, 1995; **Amended:** Effective: November 21, 1996; **Amended:** Effective: September 25, 1997; **Amended:** Effective: March 27, 1998; **Amended:** Effective: July 15, 1999; **Amended:** Effective: January 13, 2000; **Amended:** Effective: September 7, 2000; **Amended:** Effective: March 14, 2002; **Amended:** Effective: October 3, 2002; **Amended:** Effective: April 3, 2003; **Amended:** Effective: October 2, 2003; **Amended:** Effective: March 22, 2005; **Amended:** Effective: December 12, 2005; **Amended:** Effective: July 11, 2006; **Amended:** Effective: November 14, 2006; **Amended:** Effective: April 3, 2007; **Amended:** Effective: January 22, 2008; **Amended:** Effective: August 5, 2008; **Amended:** Effective: January 19, 2009; **Amended:** Effective: March 30, 2010; **Amended:** Effective: May 23, 2011; **Amended:** Effective: May 29, 2012; **Amended:** Effective: January 22, 2013; **Amended:** Effective: May 28, 2013; **Amended:** Effective: September 24, 2013; **Amended:** Effective: November 24, 2015; **Amended:** Effective: June 2, 2017; **Amended:** Filed: February 28, 2020; Effective: April 13, 2020. **Amended: Proposed: July 20, 2021.**

335-3-10-.03 Appendices to 40 CFR 60.

- (1) Appendix A - Reference Method.
- (2) Appendix B - Performance Specifications.
- (3) Appendix F - Quality Assurance Procedures.

Author: Robert Cowne.

Statutory Authority: Code of Alabama 1975, §§22-28-14, 22-22A-5, 22-22A-6, 22-22A-8, and 41-22-9.

History: Effective Date: June 16, 1988. **Amended:** Effective: November 1, 1990.

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Effective: March 27, 1998. **Amended:** Effective: January 13, 2000. **Amended:**

Effective: September 7, 2000. **Amended:** Effective: March 14, 2002. **Amended:**

Effective: October 3, 2002. **Amended:** Effective: March 22, 2005. **Amended:** Effective:

November 14, 2006. **Amended:** Effective: April 3, 2007. **Amended:** Effective: January

22, 2008. **Amended:** Effective: January 19, 2009. **Amended:** Effective: March 30,

2010. **Amended:** Effective: May 23, 2011. **Amended:** Effective: May 28, 2013.

Amended: Effective: November 24, 2015. **Amended:** Effective: June 2, 2017.

Amended: Filed: August 21, 2018; Effective: October 5, 2018. **Amended:** Filed:

February 28, 2020; Effective: April 13, 2020. **Amended:** **Proposed: July 20, 2021.**

335-3-11-.01 General.

(1) The Environmental Protection Agency Regulations, and the Appendices applicable thereto, governing Hazardous Air Pollutants, 40 CFR, Part 61 and Appendices, designated in rules 335-3-11-.02 and 335-3-11-.03 and 40 CFR Part 63, and Appendices designated in rules 335-3-11-.06 and 335-3-11-.07 are incorporated by reference as they exist in 40 CFR 61 (~~2016~~2021), ~~and 81 FR 59800 [08/30/2016, amendments to Subparts A and Appendix B]~~, and 40 CFR 63 (July 1, ~~2019~~2021), ~~—~~as amended by the word or phrase substitutions given in rule 335-3-11-.04. References for specific documents containing the complete text of subject regulations are given in Appendix C to these Regulations. Authorities which are not delegable to the state are also listed in Appendix C.

[NOTE: The standards pertaining to the Consolidated Federal Air rule are located in chapter 335-3-11A.]

(a) The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

(2) In the event of any conflict between the regulations contained in this chapter and regulations contained in other chapters, the more stringent regulations will take precedence.

(3) Definitions. For purposes of this chapter, the definitions listed in 40 CFR 61.02, Subpart A will apply in rules 335-3-11-.02 and 335-3-11-.03 and the definitions listed in 40 CFR 63.2, Subpart A will apply in rules 335-3-11-.06 and 335-3-11-.07.

Author:

Statutory Authority: Code of Alabama 1975, §§22-28-14, 22-22A-5, 22-22A-6, 22-22A-8, and 41-22-9.

History: Effective Date: May 25, 1976. **Amended:** Effective: February 13, 1985.

Amended: Effective: June 9, 1987. **Amended:** Effective: June 16, 1988. **Amended:**

Effective: November 1, 1990. **Amended:** Effective: March 28, 1991. **Amended:**

Effective: July 31, 1991. **Amended:** Effective: September 19, 1991. **Amended:**

Effective: October 30, 1992. **Amended:** Effective: December 28, 1993. **Amended:**

Effective: November 23, 1995. **Amended:** Effective: November 21, 1996.

Amended: Effective: September 25, 1997. **Amended:** Effective: March 27, 1998.

Amended: Effective: November 19, 1998. **Amended:** Effective: July 15, 1999.

Amended: Effective: January 13, 2000. **Amended:** Effective: September 7, 2000.

Amended: Effective: March 14, 2002. **Amended:** Effective: October 3, 2002.

Amended: Effective: April 3, 2003. **Amended:** Effective: October 2, 2003. **Amended:**

Effective: March 22, 2005. **Amended:** Effective: December 12, 2005. **Amended:**

Effective: July 11, 2006. **Amended:** Effective: April 3, 2007. **Amended:** Effective:

January 22, 2008. **Amended:** Effective: August 5, 2008. **Amended:** Effective:

January 19, 2009. **Amended:** Effective: March 30, 2010. **Amended:** Effective: May

23, 2011. **Amended:** Effective: May 29, 2012. **Amended:** Effective: January 22,

2013. **Amended:** Effective: May, 28, 2013. **Amended:** Effective: September 24,

2013. **Amended:** Effective: November 24, 2015. **Amended:** Effective: June 2, 2017.

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335-3-11-.03 Appendices to 40 CFR 61.

(1) Appendix B - Test Methods

Author: Robert W. Cowne.

Statutory Authority: Code of Alabama 1975, §§22-28-14, 22-22A-5, 22-22A-6, 22-22A-8, and 41-22-9.

History: Effective Date: June 16, 1988

Amended: March 28, 1991; November 21, 1996; March 14, 2002; November 24, 2015; June 2, 2017. **Amended: Proposed: July 20, 2021.**

335-3-11-.06 National Emission Standards for Hazardous Air Pollutants for Source Categories.

(1) Subpart A – General Provisions.

(2) Subpart B - Requirements for Control Technology Determinations for Major Sources in Accordance With Clean Air Act Sections, Sections 112(g) and 112(j).

[NOTE: The requirements for implementation of §112(g) are found in rule 335-3-14-.06]

(3) Subpart D - Regulations Governing Compliance Extensions for Early Reductions of Hazardous Air Pollutants.

(4) Reserved.

(5) Subpart F - National Emission Standards for Hazardous Air Pollutants From Synthetic Organic Chemical Manufacturing Industry.

(6) Subpart G - National Emission Standards for Organic Hazardous Air Pollutants From Synthetic Organic Chemical Manufacturing Industry Process Vents, Storage Vessels, Transfer Operations, and Wastewater.

(7) Subpart H - National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks.

(8) Subpart I - National Emission Standards for Organic Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks.

(9) Reserved.

(10) Reserved.

(11) Subpart L - National Emission Standards for Coke Oven Batteries.

(12) Subpart M - National Perchloroethylene Air Emission Standards for Dry Cleaning Facilities.

(13) Subpart N - National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks.

(14) Subpart O - Ethylene Oxide Emissions Standards for Sterilization Facilities.

(15) Reserved.

(16) Subpart Q - National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers.

(17) Subpart R - National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations).

(18) Subpart S - National Emission Standards for Hazardous Air Pollutants for Pulp and Paper Production.

(19) Subpart T - National Emission Standards for Halogenated Solvent Cleaning.

(20) Subpart U - National Emission Standards for Hazardous Air Pollutant Emissions: Group I Polymers and Resins.

(21) Reserved.

(22) Subpart W - National Emission Standards for Hazardous Air Pollutants for Epoxy Resins Production and Non-Nylon Polyamides Production.

(23) Subpart X - National Emission Standards from Secondary Lead Smelting.

(24) Subpart Y - National Emission Standards for Marine Tank Vessel Loading Operations [with the exceptions of those subsections referencing the Valdez Marine Terminal (VMT) in Alaska].

(25) Reserved.

(26) Subpart AA – National Emission Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants.

(27) Subpart BB – National Emission Standards for Hazardous Air Pollutants from Phosphate Fertilizers Production Plants.

(28) Subpart CC - National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries.

(29) Subpart DD - National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

(30) Subpart EE - National Emission Standards for Magnetic Tape Manufacturing Operations.

(31) Reserved.

(32) Subpart GG – National Emission Standards for Aerospace Manufacturing and Rework Facilities.

(33) Subpart HH – National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities.

(34) Subpart II - National Emission Standards for Shipbuilding and Ship Repair (Surface Coating) Operations.

(35) Subpart JJ - National Emission Standards for Wood Furniture Manufacturing Operations.

(36) Subpart KK - National Emission Standards for the Printing and Publishing Industry.

(37) Reserved.

(38) Subpart MM - National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semicemical Pulp Mills.

(39) Reserved.

(40) Subpart OO - National Emission Standards for Tanks - Level 1.

(41) Subpart PP - National Emission Standards for Containers.

(42) Subpart QQ - National Emission Standards for Surface Impoundments.

(43) Subpart RR - National Emission Standards for Individual Drain Systems.

(44) Subpart SS - National Emission Standards Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process.

(45) Subpart TT - National Emission Standards for Equipment Leaks - Control Level 1.

(46) Subpart UU - National Emission Standards for Equipment Leaks - Control Level 2 Standards.

(47) Subpart VV National Emission Standards for Oil-Water Separators and Organic-Water Separators.

(48) Subpart WW - National Emission Standards for Storage Vessels (Tanks) - Control Level 2.

(49) Subpart XX - National Emission Standards for Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations.

(50) Subpart YY - National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards.

(51) Reserved.

(52) Reserved.

(53) Reserved.

- (54) Subpart CCC – National Emission Standards for Hazardous Air Pollutants for Steel Pickling – HCl Process Facilities and Hydrochloric Acid Regeneration Plants.
- (55) Subpart DDD – National Emission Standards for Hazardous Air Pollutants for Mineral Wool Production.
- (56) Subpart EEE - National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors.
- (57) Reserved.
- (58) Subpart GGG - National Emission Standards for Hazardous Air Pollutants for Source Categories: Pharmaceuticals Production.
- (59) Subpart HHH – National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities.
- (60) Subpart III - National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production.
- (61) Subpart JJJ - National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins.
- (62) Reserved.
- (63) Subpart LLL - National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry.
- (64) Subpart MMM – National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production.
- (65) Subpart NNN – National Emission Standards for Hazardous Air Pollutants for Wool Fiberglass Manufacturing.
- (66) Subpart OOO – National Emission Standards for Hazardous Air Pollutants for Amino/Phenolic Resins Production.
- (67) Subpart PPP – National Emission Standards for Hazardous Air Pollutants for Polyether Polyols Production.
- (68) Reserved.
- (69) Subpart RRR – National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production.
- (70) Reserved.
- (71) Reserved.
- (72) Subpart UUU – National Emission Standards for Hazardous Air

Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units.

(73) Subpart VVV – National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works.

(74) Reserved.

(75) Subpart XXX – National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production: Ferromanganese and Silicomanganese.

(76) Reserved.

(77) Reserved.

(78) Subpart AAAA – National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills.

(79) Reserved.

(80) Subpart CCCC – National Emission Standards for Hazardous Air Pollutants: Nutritional Yeast.

(81) Subpart DDDD – National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products.

(82) Subpart EEEE – National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline).

(83) Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing.

(84) Subpart GGGG – National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production.

(85) Subpart HHHH – National Emission Standards for Hazardous Air Pollutants for Wet-Formed Fiberglass Mat Production.

(86) Subpart IIII – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks.

(87) Subpart JJJJ – National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating.

(88) Subpart KKKK – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans.

(89) Reserved.

(90) Subpart MMMM – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products.

(91) Subpart NNNN – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances.

(92) Subpart OOOO – National Emission Standards for Hazardous Air Pollutants: Printing, Coating, and Dyeing of Fabrics and Other Textiles.

(93) Subpart PPPP – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products.

(94) Subpart QQQQ – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products.

(95) Subpart RRRR – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture.

(96) Subpart SSSS – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil.

(97) Reserved.

(98) Reserved.

(99) Subpart VVVV – National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing.

(100) Subpart WWWW – National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production.

(101) Subpart XXXX – National Emission Standards for Hazardous Air Pollutants: Rubber Tire Manufacturing.

(102) Subpart YYYY – National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines.

(103) Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (major source provisions only).

(104) Subpart AAAAA – National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants.

(105) Subpart BBBB – National Emission Standards for Hazardous Air Pollutants for Semiconductor Manufacturing.

(106) Subpart CCCC – National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks.

(107) Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.

(108) Subpart EEEEE – National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries.

(109) Subpart FFFFF – National Emission Standards for Hazardous Air Pollutants for Integrated Iron and Steel Manufacturing Facilities.

(110) Subpart GGGGG – National Emission Standards for Hazardous Air Pollutants: Site Remediation.

(111) Subpart HHHHH – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing.

(112) Subpart IIIII – National Emission Standards for Hazardous Air Pollutants: Mercury Emissions From Mercury Cell Chlor-Alkali Plants.

(113) Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing.

(114) Subpart KKKKK – National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing.

(115) Subpart LLLLL – National Emission Standards for Hazardous Air Pollutants: Asphalt Processing and Asphalt Roofing Manufacturing.

(116) Reserved.

(117) Subpart NNNNN – National Emission Standards for Hazardous Air Pollutants: Hydrochloric Acid Production.

(118) Reserved.

(119) Subpart PTTTT – National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Standards.

(120) Subpart QQQQQ – National Emission Standards for Hazardous Air Pollutants for Friction Materials Manufacturing Facilities

(121) Subpart RRRRR – National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing.

(122) Reserved.

(123) Subpart TTTTT – National Emission Standards for Hazardous Air Pollutants for Primary Magnesium Refining.

(124) Subpart UUUUU– National Emission Standards for Hazardous Air Pollutants for Coal- and Oil-Fired Electric Utility Steam Generating Units.

(125) Reserved.

(126) Reserved.

(127) Reserved.

(128) Subpart YYYYYY– National Emission Standards for Hazardous Air Pollutants for Electric arc Furnace Steelmaking Facilities Area Sources.

(129) Subpart ZZZZZZ – National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources.

(130) Reserved.

(131) Reserved.

(132) Reserved.

(133) Subpart DDDDDD – National Emission Standards for Hazardous Air Pollutants for Polyvinyl Chloride and Copolymers Production Area Sources.

(134) Subpart EEEEEEE – National Emission Standards for Hazardous Air Pollutants for Primary Copper Smelting Area Sources.

(135) Subpart FFFFFFFF – National Emission Standards for Hazardous Air Pollutants for Secondary Copper Smelting Area Sources.

(136) Subpart GGGGGG – National Emission Standards for Hazardous Air Pollutants for Primary Nonferrous Metals Area Sources – Zinc, Cadmium, and Beryllium.

(137) Reserved.

(138) Reserved.

(139) Reserved.

(140) Reserved.

(141) Subpart LLLLLL – National Emission Standards for Hazardous Air Pollutants for Acrylic and Modacrylic Fibers Production Area Sources.

(142) Subpart MMMMMM – National Emission Standards for Hazardous Air Pollutants for Carbon Black Production Area Sources.

(143) Reserved.

(144) Subpart OOOOOO – National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production and Fabrication Area Sources.

(145) Reserved.

(146) Subpart QQQQQQ – National Emission Standards for Hazardous Air Pollutants for Wood Preserving Area Sources.

(147) Reserved.

(148) Reserved.

(149) Subpart TTTTTT– National Emission Standards for Hazardous Air Pollutants for Secondary nonferrous Metals Processing Area Sources.

(150) Reserved.

(151) Subpart VVVVVV– National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources.

(152) Reserved.

(153) Reserved.

(154) Subpart YYYYYY– National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production Facilities Area Sources.

(155) Subpart ZZZZZZ – National Emission Standards for Hazardous Air Pollutants for Aluminum, Copper, and Other Nonferrous Foundries Area Sources.

(156) Subpart AAAAAA – National Emission Standards for Hazardous Air Pollutants for Asphalt Processing and Asphalt Roofing Manufacturing Area Sources

(157) Reserved.

(158) Subpart CCCCCC – National Emission Standards for Hazardous Air Pollutants for Paints and Allied Products Manufacturing Area Sources.

(159) Subpart DDDDDDD – National Emission Standards for Hazardous Air Pollutants for Prepared Feeds Manufacturing Area Sources.

(160) Reserved.

(161) Reserved.

(162) Reserved.

(163) Subpart HHHHHHH – National Emission Standards for Hazardous Air Pollutant Emissions for Polyvinyl Chloride and Copolymers Production.

Author: Richard E. Grusnick.

Statutory Authority: Code of Alabama 1975, §§22-28-14, 22-22A-5, 22-22A-6, 22-22A-8, and 41-22-9.

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335-3-11-.07 Appendices to 40 CFR 63.

- (1) Appendix A - Test Methods.
- (2) Appendix B - Sources Defined for Early Reduction Provisions.
- (3) Appendix C - Determination of the Fraction Biodegraded (F_{bio}) in a Biological Treatment Unit.
- (4) Appendix D - Alternative Validation Procedure for EPA Waste and Wastewater Methods.
- (5) Appendix E – Monitoring Procedure for Nonthoroughly Mixed Open Biological Treatment System Systems at Kraft Pulp Mills Under Unsafe Sampling Conditions.

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Statutory Authority: Code of Alabama 1975, §§22-28-14, 22-22A-5, 22-22A-6, 22-22A-8, and 41-22-9.

History: Effective Date: November 23, 1995. **Amended:** Effective: November 21, 1996. **Amended:** Effective: September 25, 1997. **Amended:** Effective: November 19, 1998. **Amended:** Effective: July 15, 1999. **Amended:** Effective: January 13, 2000. **Amended:** Effective: March 14, 2002. **Amended:** Effective: March 30, 2010. **Amended:** Effective: May 23, 2011. **Amended:** Effective: May 28, 2013. **Amended:** Effective: November 24, 2015. **Amended:** Effective: June 2, 2017. **Amended:** Filed: August 21, 2018; Effective: October 5, 2018; **Amended:** Filed: February 28, 2020; Effective April 13, 2020. **Amended:** Proposed: July 20, 2021.

335-3-19-.01 Definitions.

(1) For the purposes of this Chapter and rules 335-3-10-.02(75) and 335-3-10-.02(76) only, the following words and phrases, unless a different meaning is plainly required by the content, shall have the following meanings.

(a) "Active collection system" means a gas collection system that uses gas mover equipment.

(b) "Active landfill" means a landfill in which solid waste is being placed or a landfill that is planned to accept waste in the future.

(c) "Closed area" means a separately lined area of an MSW landfill in which solid waste is no longer being placed. If additional solid waste is placed in that area of the landfill, that landfill area is no longer closed. The area shall be separately lined to ensure that the landfill gas does not migrate between open and closed areas.

(d) "Closed landfill" means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under § 60.7(a)(4), 40 CFR. Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed.

(e) "Closed landfill subcategory" means a closed landfill that has submitted a closure report as specified in rule 335-3-19-.03(6)(e) on or before September 27, 2017.

(f) "Closure" means that point in time when a landfill becomes a closed landfill.

(g) "Commercial solid waste" means all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes.

(h) "Controlled landfill" means any landfill at which collection and control systems are required under this Chapter as a result of the nonmethane organic compounds emission rate. The landfill is considered controlled at the time a collection and control system design plan is submitted in compliance with rule 335-3-19-.03(1)(d)2.(i).

(i) "Corrective action analysis" means a description of all reasonable interim and long-term measures, if any, that are available, and an explanation of why the selected corrective action(s) is/are the best alternative(s), including, but not limited to, considerations of cost effectiveness, technical feasibility, safety, and secondary impacts.

(j) "Design capacity" means the maximum amount of solid waste a landfill can accept, as indicated in terms of volume or mass in the most recent permit issued by the Department, plus any in-place waste not accounted for in the most recent permit. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation must include a site-specific density, which must be recalculated annually.

(k) "Disposal facility" means all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.

(l) "Emission rate cutoff" means the threshold annual emission rate to which a landfill compares its estimated emission rate to determine if control under the regulation is required.

(m) "Enclosed combustor" means an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. An enclosed flare is considered an enclosed combustor.

(n) "Flare" means an open combustor without enclosure or shroud.

(o) "Gas mover equipment" means the equipment (i.e., fan, blower, compressor) used to transport landfill gas through the header system.

(p) "Gust" means the highest instantaneous wind speed that occurs over a 3-second running average.

(q) "Household waste" means any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including, but not limited to, single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas). Household waste does not include fully segregated yard waste. Segregated yard waste means vegetative matter resulting exclusively from the cutting of grass, the pruning and/or removal of bushes, shrubs, and trees, the weeding of gardens, and other landscaping maintenance activities. Household waste does not include construction, renovation, or demolition wastes, even if originating from a household.

(r) "Industrial solid waste" means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of the Resource Conservation and Recovery Act. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals

manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include fly ash waste, bottom ash waste, boiler slag waste, or flue gas emission control waste which result from the combustion of coal or other fossil fuels at electric or steam generating plants. Additionally, this term does not include mining waste or oil and gas wastes, or small quantity generator waste as defined in ADEM Admin. Code r. 335-14-2-.01(5). Uncontaminated concrete, soil, brick, rock, and similar materials are excluded from this definition.

(s) "Interior Well" means any well or similar collection component located inside the perimeter of the landfill waste. A perimeter well located outside the landfilled waste is not an interior well.

(t) "Landfill" means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile as those terms are defined under ADEM Admin. Code r. 335-13-1-.03.

(u) "Lateral expansion" means a horizontal expansion of the waste boundaries of an existing MSW landfill. A lateral expansion is not a modification unless it results in an increase in the design capacity of the landfill.

(v) "Leachate recirculation" means the practice of taking the leachate collected from the landfill and reapplying it to the landfill by any of one of a variety of methods, including pre-wetting of the waste, direct discharge into the working face, spraying, infiltration ponds, vertical injection wells, horizontal gravity distribution systems, and pressure distribution systems.

(w) "Modification" means an increase in the permitted volume design capacity of the landfill by either lateral or vertical expansion based on its design capacity as of July 17, 2014. Modification does not occur until the owner or operator commences construction on the lateral or vertical expansion.

(x) "Municipal solid waste landfill" or "MSW landfill" means an entire disposal facility in a contiguous geographic space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (ADEM Admin. Code r. 335-13-1-.03) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an MSW landfill may be separated by access roads. An MSW landfill may be publicly or privately owned. An MSW landfill may be a new MSW landfill, an existing MSW landfill, or a lateral expansion.

(y) "Municipal solid waste landfill emissions" or "MSW landfill emissions" means gas generated by the decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste.

(z) "NMOC" means nonmethane organic compounds, as measured according to the provisions of rule 335-3-19-.03(3).

(aa) "Nondegradable waste" means any waste that does not decompose through chemical breakdown or microbiological activity. Examples are, but are not limited to, concrete, municipal waste combustor ash, and metals.

(bb) "Passive collection system" means a gas collection system that solely uses positive pressure within the landfill to move the gas rather than using gas mover equipment.

(cc) "Root cause analysis" means an assessment conducted through a process of investigation to determine the primary cause, and any other contributing causes, of positive pressure at a wellhead.

(dd) "Sludge" means any nonhazardous solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

(ee) "Solid waste" means any garbage or rubbish, construction/demolition debris, ash, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities or materials intended for or capable of recycling, but which have not been diverted or removed from the solid waste stream. The term "solid waste" does not include recovered material, solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to National Pollutant Discharge permits under the Federal Water Pollution Control Act 33 U.S.C. 1342, as amended, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.). Also excluded from this definition are wastes from silvicultural operations, land application of crop residues, animal residues, animal manure and ash resulting exclusively from the combustion of fossil fuels or wood during normal agricultural operations or mining refuse as defined and regulated pursuant to the Alabama Mining Act.

(ff) "Sufficient density" means any number, spacing, and combination of collection system components, including vertical wells, horizontal collectors,

and surface collectors, necessary to maintain emission and migration control as determined by measures of performance set forth in this Chapter.

(gg) "Sufficient extraction rate" means a rate sufficient to maintain a negative pressure at all wellheads in the collection system without causing air infiltration, including any wellheads connected to the system as a result of expansion or excess surface emissions, for the life of the blower.

(hh) "Treated landfill gas" means landfill gas processed in a treatment system as defined in this rule.

(ii) "Treatment system" means a system that filters, de-waters, and compresses landfill gas for sale or beneficial use.

(ij) "Untreated landfill gas" means any landfill gas that is not treated landfill gas.

Author: Ronald W. Gore

Statutory Authority: Code of Alabama 1975, §§22-28-14, 22-22A-5, 22-22A-6, 22-22A-8.

History: Filed: October 12, 2021; Effective: December 13, 2021.

335-3-19-.02 General Provisions.

(1) The provisions of this Chapter apply to each existing MSW landfill for which construction, reconstruction or modification was commenced on or before July 17, 2014. Physical or operational changes made to an existing MSW landfill solely to comply with this Chapter are not considered a modification or reconstruction and would not subject an existing MSW landfill to the requirements of Subpart XXX as incorporated by reference in rule 335-3-10-.02(76), [see §60.760 of Subpart XXX, 40 CFR].

(a) The requirements of this rule shall become effective upon final approval by EPA.

(2) Collection and control of MSW landfill emissions shall be required at each MSW landfill meeting the following four conditions:

(a) The landfill has accepted municipal solid waste at any time since November 8, 1987, or has additional design capacity available for future waste deposition.

(b) The landfill has a design capacity greater than or equal to 2.5 million megagrams by mass and 2.5 million cubic meters by volume. The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the design capacity report; and

(c) The landfill has a nonmethane organic compound emission rate greater than or equal to 34 megagrams per year or Tier 4 surface emissions monitoring shows a surface emission concentration of 500 parts per million methane or greater.

(d) The landfill in the closed landfill subcategory and has an NMOC emission rate greater than or equal to 50 megagrams per year or Tier 4 surface emissions monitoring shows a surface emission concentration of 500 parts per million methane or greater.

(3) For purposes of obtaining an operating permit under Chapter 335-3-16 of this Division, the owner or operator of a MSW landfill subject to this Chapter with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters is not subject to the requirement to obtain an operating permit for the landfill under Chapter 335-3-16, unless the landfill is otherwise subject to Chapter 335-3-16. For purposes of submitting a timely application for an operating permit, the owner or operator of a MSW landfill subject to this Chapter with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters on the effective date of EPA's approval of the state's program [December 7, 1998], and not otherwise subject to Chapter 335-3-16, becomes subject to the requirements of Chapter 335-3-16, 90 days after the effective date [March 7, 1999] of said program approval, even if the design capacity report is submitted earlier.

(4) When a MSW landfill subject to this Chapter is closed as defined in this rule, the owner or operator is no longer subject to the requirement to maintain an operating permit under Chapter 335-3-16 for the landfill if the landfill is not otherwise subject to the requirements of Chapter 335-3-16 and if either of the following conditions are met.

(a) The landfill was never subject to the requirement to install and operate a gas collection and control system under rule 335-3-19-.03; or

(b) The owner or operator meets the condition for control system removal specified in rule 335-3-19-.03(1)(e).

(5) When an MSW landfill subject to this rule is in the closed landfill subcategory, the owner or operator is not subject to the following reports of this rule, provided the owner or operator submitted these reports under the provisions of Subpart WWW as incorporated by reference in rule 335-3-10-.02(75); or under the provisions of this rule on or before July 17, 2014;

(a) Initial design capacity report specified in subparagraph 335-3-19-.03(6)(a) of this rule.

(b) Initial or subsequent NMOC emission rate report specified in subparagraph 335-3-19-.03(6)(b) of this rule, provided that the most recent NMOC emission rate report indicated the NMOC emissions were below 50 Mg/yr.

(c) Collection and control system design plan specified in subparagraph 335-3-19-.03(6)(c) of this rule.

(d) Closure report specified in subparagraph 335-3-19-.03(6)(e) of this rule.

(e) Equipment removal report specified in subparagraph 335-3-19-.03(6)(f) of this rule.

(f) Initial annual report specified in subparagraph 335-3-19-.03(6)(g) of this rule.

(g) initial performance test report in subparagraph 335-3-19-.03(6)(h) of this rule.

Author: Ronald W. Gore

Statutory Authority: Code of Alabama 1975, §§22-28-14, 22-22A-5, 22-22A-6, 22-22A-8.

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335-3-19-.03 Standards for Existing Municipal Solid Waste Landfills.

(1) Standards for Air Emissions from Existing Municipal Solid Waste Landfills.

(a) Collection system. Each MSW landfill meeting the conditions in 335-3-19-.02(2) shall install a gas collection as specified in subparagraphs (a)1. through (a)3. of this paragraph.

1. *Collection system.* Install and start up a collection and control system that captures the gas generated within the landfill within 30 months after:

(i) The first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in subparagraph (6)(c)4. of this rule; or

(ii) The first annual NMOC emission rate report for a landfill in the closed landfill subcategory in which the NMOC emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 50 megagrams per year, as specified in subparagraph (6)(c)4. of this rule; or

(iii) The most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in subparagraph (6)(c)4.(iii) of this rule.

2. *Active.* An active collection system shall:

(i) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control system equipment.

(ii) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active; or 2 years or more if closed or at final grade.

(iii) Collect gas at a sufficient extraction rate.

(iv) Be designed to minimize off-site migration of subsurface gas.

3. *Passive.* A passive collection system shall:

(i) Comply with the provisions specified in subparagraphs (1)(a)2.(i), (ii), and (iv) of this paragraph.

(ii) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under 40 CFR § 258.40.

(b) *Control system.* Each MSW landfill meeting the conditions in rule 335-3-19-.02(2) shall control gas collected from within the landfill through the use of control devices meeting the following requirements, except as provided in 40 CFR § 60.24.

1. A non-enclosed flare designed and operated in accordance with the parameters established in 40 CFR § 60.18 except as noted in subparagraph (5)(d) of this rule; or

2. A control system designed and operated to reduce NMOC by 98 weight percent; or when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen or less. The reduction efficiency or concentration in parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in subparagraph (3)(d) of this rule. The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this Chapter.

(i) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

(ii) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in paragraph (5) of this rule.

(iii) For the closed landfill subcategory, the initial or most recent performance test conducted to comply with 40 CFR 60 Subpart WWW of this; or any other requirement of this Chapter on or before July 17, 2014 is sufficient for compliance with this Chapter.

3. Route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas shall be controlled according to either subparagraph (b)1. or 2. of this paragraph.

4. All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of subparagraph (a) or (b) of this paragraph. For purposes of this Chapter, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of subparagraph (a) or (b) of this paragraph.

(c) *Design capacity.* Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Director as provided in subparagraph (6)(a) of this rule. The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. Submittal of the initial design capacity report shall fulfill the requirements of this rule except as provided for in subparagraphs (a)1. and (a)2. below.

1. The owner or operator shall submit to the Director an amended design capacity report, as provided for in subparagraph (6)(a)3. [Guidance: Note that if the design capacity increase is the result of a modification, as defined in rule 335-3-19-.01, that was commenced after July 17, 2014, the landfill will become subject to Rule 335-3-10-.02(76), 40 CFR 60, Subpart XXX. If the design capacity increase is the result of a change in operating practices, density, or some other change that is not a modification as the defined in rule 335-3-19-.01, the landfill remains subject to this Chapter.]

2. When an increase in the maximum design capacity of a landfill with an initial design capacity less than 2.5 million megagrams or 2.5 million cubic meters results in a revised maximum design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, the owner or operator shall comply with the provision of subparagraph (d) below.

(d) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, shall either install a collection and control system as provided in subparagraphs (a) and (b) of this paragraph comply with subparagraph (d)2. of this paragraph or calculate an NMOC emission rate for the landfill using the procedures specified in paragraph (3) of this rule. The NMOC emission rate shall be recalculated annually, except as provided in subparagraph(6)(b)3. of this rule. The owner or operator of an MSW landfill subject to this Chapter with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to major source operating permitting requirements in Chapter 335-3-16.

1. If the calculated NMOC emission rate is less than 34 megagrams per year, the owner or operator shall:

(i) submit an annual NMOC emission report to the Director, except as provided for in subparagraph(6)(b)3. of this rule; and

(ii) recalculate the NMOC emission rate annually using the procedures specified in subparagraph (3)(a) of this rule until such time as the calculated NMOC emission rate is equal to or greater than 34 megagrams per year, or the landfill is closed.

(I) If the NMOC emission rate, upon initial calculation or annual recalculation required in subparagraph (d)1.(ii) above, is equal to or greater than 34 megagrams per year, the owner or operator shall install a collection and control system in compliance with subparagraph (b)2. below; calculate NMOC emission using the next higher tier in subparagraph (3) of this rule; or conduct a surface emission monitoring demonstration using the procedures specified in subparagraph (3)(a)6. of this rule.

(II) If the landfill is permanently closed, a closure report shall be submitted to the Director as provided for in subparagraph (6)(e) of this rule, except for exemption allowed under 335-3-19-.02(5)(d).

(III) For the closed landfill subcategory, if the most recently calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall either: Submit a gas collection and control system design plan as specified in subparagraph (6)(c) of this rule, except for exemptions allowed under rule 335-3-19-.02(5)(c), and install a collection and control system as provided in subparagraphs (a) and (b) of this paragraph; calculate NMOC emissions using the next higher tier in paragraph (3) of this rule; or conduct a surface emission monitoring demonstration using the procedures specified in subparagraph (3)(a)6. of this rule.

2. If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator shall either:

(i) submit a collection and control system design plan prepared by a professional engineer to the Director within 1 year as specified in subparagraph (6)(c) of this rule, except for exemptions allowed under rule 335-3-19-.02(5)(c);

(ii) calculate NMOC emissions using a higher tier in paragraph (3) of this rule; or

(iii) conduct a surface emission monitoring demonstration using the procedures specified in subparagraph (3)(a)6. of this rule.

3. For the closed landfill subcategory, if the calculated NMOC emission rate is equal to or greater than 50 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator shall either:

(i) Submit a collection and control system design plan as specified in subparagraph (6)(c) of this rule, except for exemptions allowed under rule 335-3-19-.02(5)(c);

(ii) calculate NMOC emissions using a higher tier in paragraph (3) of this rule; or

(iii) conduct a surface emission monitoring demonstration using the procedures specified in subparagraph (3)(a)6. of this rule.

(e) *Removal criteria.* The collection and control system may be capped, removed, or decommissioned provided that the following criteria are met:

1. The landfill is a closed landfill as defined in rule 335-3-19-.01(d). A closure report shall be submitted to the Director as provided in subparagraph (6)(e) of this rule;

2. The collection and control system shall have been in operation a minimum of 15 years or the landfill owner or operator demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flow.

3. Following the procedures specified in subparagraph (3)(b) of this rule, the calculated NMOC gas produced by the landfill shall be less than 34 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

4. For the closed landfill subcategory (as defined in rule 335-3-19-.01(e)), following the procedures specified in subparagraph (3)(b) of this rule, the calculated NMOC emission rate at the landfill is less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

(2) Operational Standards for Collection and Control Systems. For a MSW landfill with a gas collection and control system used to comply with subparagraphs (1)(a) and (b) of this rule, the owner or operator of an MSW landfill shall operate the gas collection and control system in accordance with the operational standards in this paragraph (as well as the provisions in paragraphs (4) and (5) of this rule, or the operational standards in 40 CFR § 63.1958, as incorporated by reference under ADEM Admin. Code r. 335-3-11-.06(78) (as well as the provisions in 40 CFR §§ 63.1960 and 63.1961, as incorporated by reference under ADEM Admin. Code r. 335-3-11-.06(78)), or both as alternative means of compliance. Once the owner or operator begins to comply with the provisions of 40 CFR §63.1958, as incorporated by reference under ADEM Admin. Code r. 335-3-11-.06(78), the owner or operator shall continue to operate the collection and control device according to those provisions and cannot return to the provisions of this paragraph. Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of subparagraph (1)(a) and (b) of this rule shall:

(a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:

1. 5 years or more if active; or
2. 2 years or more if closed or at final grade;

(b) Operate the collection system with negative pressure at each wellhead except under the following conditions:

1. a fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These

records shall be submitted with the annual reports as provided in subparagraph (6)(g) of this rule;

2. use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;

3. a decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Director as specified in subparagraph 335-3-19-.03(6)(c) of this rule;

(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55°C (131°F). The owner or operator may establish a higher operating temperature value at a particular well. A higher operating value demonstration shall be submitted to the Director for approval and shall include supporting data demonstrating that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens. The demonstration shall satisfy both criteria in order to be approved (i.e., neither causing fires nor killing methanogens is acceptable).

(d) Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in subparagraph (4)(d) of this rule. The owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations. Thus the owner or operator shall monitor any openings that are within an area of the landfill where waste has been placed and a gas collection system is required. The owner or operator shall establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

(e) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with subparagraph (1)(b) of this rule. In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour of the collection or control system not operating.

(f) Operate the control system at all times when the collected gas is routed to the system.

(g) If monitoring demonstrates that the operational requirements in subparagraphs (b), (c), or (d) of this paragraph are not met, corrective action shall be taken as specified in subparagraphs (4)(a)3. and 5. or subparagraph (4)(c) of this rule. If corrective actions are taken as specified in paragraph (4) of this rule, the monitored exceedance is not a violation of the operational requirements in this paragraph.

(3) Test Methods and Procedures.

(a) *NMOC Emission Rate.* The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in subparagraph (a)1. of this paragraph or the equation provided in subparagraph (a)1.(ii) of this paragraph. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in subparagraph (a)1. of this paragraph, for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in subparagraph (a)1.(ii) of this paragraph, for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k, 170 cubic meters per megagram for L_o , and 4,000 parts per million by volume as hexane for the C_{NMOC} . For landfills located in geographical areas with a 30-year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorological site, the k value to be used is 0.02 per year.

1. The following equation shall be used if the actual year-to-year solid waste acceptance rate is known.

$$M_{NMOC} = \sum_{i=1}^n 2kL_o M_i (e^{-kt_i}) (C_{NMOC}) (3.6 \times 10^{-9})$$

where,

- M_{NMOC} = Total NMOC emission rate from the landfill, megagrams per year
- k = methane generation rate constant, year⁻¹
- L_o = methane generation potential, cubic meters per megagram solid waste
- M_i = mass of solid waste in the ith section, megagrams
- t_i = age of the ith section, years
- C_{NMOC} = concentration of NMOC, parts per million by volume as hexane
- 3.6×10^{-9} = conversion factor

(i) The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for M_i if the documentation of the nature and amount of such wastes is maintained.

(ii) The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown.

$$M_{NMOC} = 2L_o R(e^{-kc} - e^{-kt})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year

L_o = methane generation potential, cubic meters per megagram solid waste

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, year⁻¹

t = age of landfill, years

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

c = time since closure, years. For active landfill $c = 0$ and $e^{-kc} = 1$

3.6×10^{-9} = conversion factor

(iii) The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating a value for R , if the documentation of the nature and amount of such wastes is maintained.

2. Tier 1. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 34 megagrams per year.

(i) If the NMOC emission rate calculated in subparagraph (a) of this paragraph is less than 34 megagrams per year, then the landfill owner or operator shall submit an NMOC emission rate report as provided in subparagraph (6)(b)1. of this rule, and shall recalculate the NMOC mass emission rate annually as required under subparagraph (1)(d)1. of this rule.

(ii) If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year, then the landfill owner or operator shall either:

(I) Submit a gas collection and control system design plan within 1 year as specified in subparagraph (6)(c) of this rule, and install and operate a gas

collection and control system within 30 months according to subparagraphs (1)(a) and (b) of this rule;

(II) Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the Tier 2 procedures provided in subparagraph (3)(a)3. of this paragraph; or

(III) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the Tier 3 procedures provided in subparagraph (3)(a)4. of this paragraph.

3. Tier 2. The landfill owner or operator shall determine the site-specific NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two sample probes per hectare, evenly distributed over the landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The probes should be evenly distributed across the sample area. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25 or 25C of Appendix A of 40 CFR Part 60. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes shall be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements shall be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If more than the required number of samples is taken, all samples shall be used in the analysis. The landfill owner or operator shall divide the NMOC concentration from Method 25 or 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe. The sample location on the common header pipe shall be before any gas moving, condensate removal, or treatment system equipment. For active collection systems, a minimum of three samples shall be collected from the header pipe. **[NOTE: Test Methods found in Appendix A of 40 CFR part 60 are incorporated by reference in ADEM Admin. Code r. 335-3-10-.03.]**

(i) Within 60 days after the date of determining the NMOC concentration and corresponding NMOC emission rate, the owner or operator shall submit the results according to subparagraph (6)(i)2. of this rule.

(ii) The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in subparagraph (3)(a)1. or (a)1.(ii) of this paragraph and using the average site-specific NMOC concentration from the collected samples instead of the default value in the equation provided in subparagraph (a) of this paragraph.

(iii) If the resulting NMOC mass emission rate is less than 34 megagrams per year, the owner or operator shall submit a periodic estimate of the NMOC emissions in an NMOC emission rate report as provided in subparagraph (6)(b)1. of this rule and shall recalculate the NMOC mass emission rate annually as required under subparagraphs (1)(a) and (b) of this rule. The site-specific NMOC concentration shall be retested every 5 years using the methods specified in this paragraph.

(iv) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 34 megagrams per year, the owner or operator shall either:

(I) Submit a gas collection and control system design plan within 1 year as specified in subparagraph (6)(c) of this rule, and install and operate a gas collection and control system within 30 months according to subparagraphs (1)(a) and (b) of this rule;

(II) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the Tier 3 procedures specified in subparagraph (3)(a)4. of this paragraph; or

(III) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in subparagraph (a)6 of this paragraph.

4. Tier 3. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of Appendix A. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in subparagraph (a)1. or (a)1.(ii) of this paragraph and using a site-specific methane generation rate constant k , and the site-specific NMOC concentration as determined in subparagraph (a)3. of this paragraph instead of the default values provided in subparagraph (a) of this paragraph. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of 34 megagrams per year.

(i) If the NMOC mass emission rate as calculated using the Tier site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the owner or operator shall comply with subparagraph (1)(b)2. of this Rule.

(I) Submit a gas collection and control system design plan within 1 year as specified in subparagraph (6)(c) of this rule, and install and operate a gas

collection and control system within 30 months according to subparagraphs (1)(a) and (b) of this rule; or

(II) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in subparagraph (3)(a)6. of this paragraph.

(ii) If the NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator shall recalculate the NMOC mass emission rate annually using either equation in subparagraph (a)1. of this paragraph and using the site-specific Tier 2 NMOC concentration and Tier 3 methane generation rate constant and submit a periodic NMOC emission rate report as provided in subparagraph (6)(b) of this rule. The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.

5. *Other methods.* The owner or operator may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in subparagraphs (a)3. and (a)4. of this paragraph if the method has been approved by the Administrator.

6. *Tier 4.* The landfill owner or operator shall demonstrate that surface methane emissions are below 500 parts per million. Surface emission monitoring shall be conducted on a quarterly basis using the following procedures. Tier 4 is allowed only if the landfill owner or operator can demonstrate that NMOC emissions are greater than or equal to 34 Mg/yr but less than 50 Mg/yr using Tier 1 or Tier 2. If both Tier 1 and Tier 2 indicate NMOC emissions are 50 Mg/yr or greater, then Tier 4 cannot be used. In addition, the landfill shall meet the criteria in subparagraph (a)6.(viii) of this paragraph.

(i) The owner or operator shall measure surface concentrations of methane along the entire perimeter of the landfill and along a pattern that traverses the landfill at no more than 30-meter intervals using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in subparagraph (4)(d) of this rule.

(ii) The background concentration shall be determined by moving the probe inlet upwind and downwind at least 30 meters from the waste mass boundary of the landfill.

(iii) Surface emission monitoring shall be performed in accordance with section 8.3.1 of Method 21 of Appendix A of 40 CFR Part 60, except that the probe inlet shall be placed no more than 5 centimeters above the landfill surface; the constant measurement of distance above the surface should be based on a mechanical device such as with a wheel on a pole.

(I) The owner or operator shall use a wind barrier, similar to a funnel, when onsite average wind speed exceeds 4 miles per hour or 2 meters per second or gust exceeding 10 miles per hour. Average on-site wind speed shall

also be determined in an open area at 5-minute intervals using an on-site anemometer with a continuous recorder and data logger for the entire duration of the monitoring event. The wind barrier shall surround the SEM monitor, and shall be placed on the ground, to ensure wind turbulence is blocked. SEM cannot be conducted if average wind speed exceeds 25 miles per hour.

(II) Landfill surface areas where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, and all cover penetrations shall also be monitored using a device meeting the specifications provided in subparagraph (4)(d) of this rule.

(iv) Each owner or operator seeking to comply with the Tier 4 provisions in subparagraph (a)6. of this paragraph shall maintain records of surface emission monitoring as provided in subparagraph(7)(g) of this rule, and submit a Tier 4 surface emissions report as provided in subparagraph (6)(c)4.(iii) of this rule.

(v) If there is any measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator shall submit a gas collection and control system design plan within 1 year of the first measured concentration of methane of 500 parts per million or greater from the surface of the landfill according to subparagraph (6)(c) of this rule, and install and operate a gas collection and control system according to subparagraphs (1)(a) and (b) of this rule, within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2.

(vi) If after four consecutive quarterly monitoring periods at a landfill, other than a closed landfill, there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator shall continue quarterly surface emission monitoring using the methods specified in this paragraph.

(vii) If after four consecutive quarterly monitoring periods at a closed landfill there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator shall conduct annual surface emission monitoring using the methods specified in this paragraph.

(viii) If a landfill has installed and operates a collection and control system that is not required by this Chapter, then the collection and control system shall meet the following criteria:

(I) The gas collection and control system shall have operated for at least 6,570 out of 8,760 hours preceding the Tier 4 surface emissions monitoring demonstration.

(II) During the Tier 4 surface emissions monitoring demonstration, the gas collection and control system shall operate as it normally would to collect and control as much landfill gas as possible.

(b) After the installation and startup of a collection and control system in compliance with paragraph (4) of this rule, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be capped, removed, or decommissioned as provided in subparagraph (1)(e) of this rule, using the following equation:

$$M_{NMOC} = 1.89 \times 10^{-3} (Q_{LFG})(C_{NMOC})$$

where,

- M_{NMOC} = mass emission rate of NMOC, megagrams per year
- Q_{LFG} = flow rate of landfill gas, cubic meters per minute
- C_{NMOC} = NMOC concentration, parts per million by volume as hexane

1. The flow rate of landfill gas, Q_{LFG} , shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of Section 10 of Method 2E of Appendix A.

2. The average NMOC concentration, C_{NMOC} , shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25 or 25C or Method 18 of Appendix A. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25 or 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

3. The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Director.

(i) Within 60 days after the date of calculating the NMOC emission rate for purposes of determining when the system can be capped or removed, the owner or operator shall submit the results according to subparagraph (6)(i)2. of this rule.

(ii) [Reserved]

(c) When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of this Chapter shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in rule 335-3-14-.04(2)(w) using AP-42 or other approved measurement procedures.

(d) For the performance test required in subparagraph (1)(b)1. of this rule, the net heating value of the combusted landfill gas as determined in 40 CFR §60.18(f)(3) is calculated from the concentration of methane in the landfill gas as measured by Method 3C. A minimum of three 30-minute Method 3C samples are determined. The measurement of other organic components, hydrogen, and carbon monoxide is not applicable. Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under 40 CFR § 60.18(f)(4).

1. Within 60 days after the date of completing each performance test (as defined in 40 CFR § 60.8), the owner or operator shall submit the results of the performance tests required by paragraph (b) or (d) of this section, including any associated fuel analyses, according to subparagraph (6)(i)1. of this rule.

2. [Reserved].

(e) For the performance test required in subparagraph (i)(b)2., Method 25 or 25C or Method 18 (Method 25C may be used at the inlet only) shall be used to determine compliance with 98 weight-percent efficiency or the 20 ppmv outlet NMOC concentration level, unless another method to demonstrate compliance has been approved by the Director as provided by subparagraph (6)(c)2. of this rule. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). Method 3, 3A, or 3C shall be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), Method 25A should be used in place of Method 25. Method 18 may be used in conjunction with Method 25A on a limited basis (compound specific, *e.g.*, methane) or Method 3C may be used to determine methane. The methane as carbon should be subtracted from the Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The landfill owner or operator shall divide the NMOC concentration as carbon by 6 to convert the C_{NMOC} as carbon to C_{NMOC} as hexane. The following equation shall be used to calculate efficiency:

$$\text{Control Efficiency} = \frac{(NMOC_{in} - NMOC_{out})}{NMOC_{in}}$$

where,

$NMOC_{in}$ = mass of NMOC entering control device

NMOC_{out} = mass of NMOC exiting control device

1. Within 60 days after the date of completing each performance test (as defined in 40 CFR § 60.8), the owner or operator shall submit the results of the performance tests, including any associated fuel analyses, according to subparagraph (6)(i)1. of this rule.

2. [Reserved].

(4) Compliance Provisions: For an MSW landfill with a gas collection and control system used to comply with subparagraphs (1)(a) and (b) of this rule, the owner or operator shall operate the gas collection and control system in accordance with the compliance provisions in this section (as well as the provisions in paragraphs (2) and (5) of this rule, or the compliance provisions in 40 CFR §63.1960, as incorporated by reference under ADEM Admin. Code r. 335-3-11-.06(78) (as well as the provisions in 40 CFR §§ 63.1958 and 63.1961, as incorporated by reference under ADEM Admin. Code r. 335-3-11-.06(78)), or both as alternative means of compliance. For a MSW landfill with a gas collection and control system used to comply with the provisions of subparagraphs (1)(a) and (b) of this rule, once the owner or operator begins to comply with the provisions of 40 CFR § 63.1960, as incorporated by reference under ADEM Admin. Code r. 335-3-11-.06(78), the owner or operator shall continue to operate the collection and control device according to those provisions and cannot return to the provisions of this paragraph.

(a) Except as provided in subparagraph (6)(c)2. of this rule, the specified methods in subparagraphs (a)1. through (a)6. of this paragraph shall be used to determine whether the gas collection system is in compliance with subparagraph (1)(b)2.(ii) of this rule.

1. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with subparagraph (1)(a)2.(i) of this rule, one of the following equations shall be used. The k and L_0 kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site-specific values demonstrated to be appropriate and approved by the Director. If k has been determined as specified in subparagraph (3)(a)4. of this rule, the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

(i) For sites with unknown year-to-year solid waste acceptance rate:

$$Q_m = 2L_0R(e^{-kc} - e^{-kt})$$

where,

- Q_m = maximum expected gas generation flow rate, cubic meters per year
- L_o = methane generation potential, cubic meters per megagram solid waste
- R = average annual acceptance rate, megagrams per year
- k = methane generation rate constant, year⁻¹
- t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years
- c = time since closure, years (for an active landfill $c = 0$ and $e^{-kc} = 1$)

(ii) For sites with known year-to-year solid waste acceptance rate:

$$Q_m = \sum_{i=1}^n 2kL_o M_i (e^{-kt_i})$$

where,

- Q_m = maximum expected gas generation flow rate, cubic meters per year
- k = methane generation rate constant, year⁻¹
- L_o = methane generation potential, cubic meters per megagram solid waste
- M_i = mass of solid waste in the i^{th} section, megagrams
- t_i = age of the i^{th} section, years

(iii) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in subparagraphs (a)1.(i) and (ii) of this paragraph. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in subparagraphs (a)1.(i) or (ii) or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

2. For the purposes of determining sufficient density of gas collectors for compliance with subparagraph (1)(a)2.(ii) of this rule., the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection

devices, satisfactory to the Director, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

3. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with subparagraph (1)(a)2.(iii) of this rule, the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under subparagraph (2)(b) of this rule. Any attempted corrective measure shall not cause exceedances of other operational or performance standards.

(i) If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement of positive pressure, the owner or operator shall conduct a root cause analysis and correct the exceedance as soon as practicable, but not later than 60 days after positive pressure was first measured. The owner or operator shall keep records according to subparagraph (7)(e)3 of this rule.

(ii) If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator shall also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit) or positive pressure. The owner or operator shall submit the items listed in subparagraph (6)(g)7. of this rule as part of the next annual report. The owner or operator shall keep records according to subparagraph (7)(e)4. of this rule.

(iii) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Director, according to subparagraph (6)(g)7. and (j) of this rule. The owner or operator shall keep records according to subparagraph (7)(e)5. of this rule.

4. [Reserved].

5. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature as provided in subparagraph (2)(c) of this rule. If a well exceeds the operating parameter for temperature, action shall be initiated to correct the exceedance within 5 calendar days. Any attempted corrective measure shall not cause exceedances of other operational or performance standards.

(i) If a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit) cannot be achieved within 15 calendar days of the first

measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit), the owner or operator shall conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after a landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit) was first measured. The owner or operator shall keep records according to subparagraph (7)(e)3. of this rule.

(ii) If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator shall also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator shall submit the items listed in subparagraph (6)(g)7. of this rule, as part of the next annual report. The owner or operator shall keep records according to subparagraph (7)(e)4. of this rule.

(iii) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Director, according to subparagraphs (6)(g)7. and (j) of this rule. The owner or operator shall keep records according to subparagraph (7)(e)5. of this rule.

6. An owner or operator seeking to demonstrate compliance with subparagraph (1)(a)2.(iv) of this rule through the use of a collection system not conforming to the specifications provided in paragraph (8) of this rule shall provide information satisfactory to the Director as specified in subparagraph (6)(c)3. of this rule demonstrating that off-site migration is being controlled.

(b) For purposes of compliance with subparagraph (2)(a) of this rule, each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in subparagraph (6)(c) of this rule. Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

1. 5 years or more if active; or
2. 2 years or more if closed or at final grade.

(c) The following procedures shall be used for compliance with the surface methane operational standard as provided in subparagraph (2)(d) of this rule.

1. After installation and startup of the gas collection system, the owner or operator shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at no more than 30 meter intervals (or a site-specific established spacing) for each

collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in subparagraph (d) of this paragraph.

2. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

3. Surface emission monitoring shall be performed in accordance with Section 8.3.1 of Method 21 of Appendix A of 40 CFR Part 60, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

4. Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in subparagraphs (c)4.(i) through (v) of this paragraph below shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of subparagraph (2)(d) of this rule.

(i) The location of each monitored exceedance shall be marked and the location and concentration recorded. For location, the owner or operator shall determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates shall be in decimal degrees with at least five decimal places.

(ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.

(iii) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in subparagraph (c)4.(v) of this paragraph shall be taken, and no further monitoring of that location is required until the action specified in subparagraph (c)4.(v) has been taken.

(iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in subparagraph (c)4.(ii) or (iii) of this paragraph shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in subparagraph (c)4.(iii) or (v) of this paragraph shall be taken.

(v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Director for approval.

5. The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

(d) Each owner or operator seeking to comply with the provisions in subparagraph (c) of this paragraph shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

1. The portable analyzer shall meet the instrument specifications provided in Section 6 of Method 21 of Appendix A, except that "methane" shall replace all references to VOC.

2. The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.

3. To meet the performance evaluation requirements in Section 8.1 of Method 21 of Appendix A, the instrument evaluation procedures of Section 8.1 of Method 21 of Appendix A shall be used.

4. The calibration procedures provided in Section 8 and 10 of Method 21 of Appendix A shall be followed immediately before commencing a surface monitoring survey.

(e) The provisions of this paragraph apply at all times, including periods of startup, shutdown, or malfunction. During periods of startup, shutdown, and malfunction, the owner or operator shall comply with the work practice specified in subparagraph (2)(e) of this rule, in lieu of the compliance provisions in paragraph (4) of this rule.

(5) Monitoring of Operations: For an MSW landfill with a gas collection and control system used to comply with subparagraphs (1)(a) and (b) of this rule, the owner or operator shall operate the gas collection and control system in accordance with the monitoring provisions in this section (as well as the provisions in paragraphs (2) and (4) of this rule, except as provided in subparagraph (6)(d)2., or the monitoring provisions in 40 CFR § 63.1961, as incorporated by reference under ADEM Admin. Code r. 335-3-11-.06(78) (as well as the provisions in 40 CFR §§ 63.1958 and 63.1960, as incorporated by reference under ADEM Admin. Code r. 335-3-11-.06(78)), or both as alternative means of compliance. Once the owner or operator begins to comply with the provisions of 40 CFR § 63.1961, as incorporated by reference under ADEM Admin. Code r. 335-3-11-.06(78), the owner or operator shall continue to

operate the collection and control device according to those provisions and cannot return to the provisions of this paragraph. Except as provided in subparagraph (6)(c)2. of this rule,

(a) Each owner or operator seeking to comply with subparagraph (1)(a)2. of this rule for an active gas collection system shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:

1. Measure the gauge pressure in the gas collection header on a monthly basis as provided in subparagraph (4)(a)3. of this rule; and

2. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:

(i) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by subparagraph (6)(c)2. of this rule.

(ii) Unless an alternative test method is established as allowed by subparagraph (6)(c)2. of this rule, the oxygen level shall be determined by an oxygen meter using Method 3A, 3C, or ASTM D6522-11 (incorporated by reference, see 40 CFR § 60.17). Determine the oxygen level by an oxygen meter using Method 3A, 3C, or ASTM D6522-11 (if sample location is prior to combustion) except that:

(I) The span shall be set between 10 and 12 percent oxygen;

(II) A data recorder is not required;

(III) Only two calibration gases are required, a zero and span;

(IV) A calibration error check is not required; and

(V) The allowable sample bias, zero drift, and calibration drift are ± 10 percent.

(iii) A portable gas composition analyzer may be used to monitor the oxygen levels provided:

(I) The analyzer is calibrated; and

(II) The analyzer meets all quality assurance and quality control requirements for Method 3A or ASTM D6522-11 (incorporated by reference, see 40 CFR § 60.17).

3. Monitor temperature of the landfill gas on a monthly basis as provided in subparagraph (4)(a)5. of this rule. The temperature measuring device shall be calibrated annually using the procedure in this 40 CFR Part 60, Appendix A-1, Method 2, Section 10.3.

(b) Each owner or operator seeking to comply with subparagraph (1)(b)2.(iii) of this rule using an enclosed combustor shall calibrate, maintain,

and operate according to the manufacturer's specifications, the following equipment.

1. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ± 1 percent of the temperature being measured expressed in °Celsius or ± 0.5 °C, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts.

2. A device that records flow to the control device and bypass of the control device (if applicable). The owner or operator shall:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; and

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(c) Each owner or operator seeking to comply with subparagraph (1)(b) of this rule using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

1. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.

2. A device that records flow to the flare and bypass of the flare (if applicable). The owner or operator shall:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; and

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(d) Each owner or operator seeking to demonstrate compliance with subparagraph (1)(b)2.(iii) of this rule using a device other than an open flare or an enclosed combustor or a treatment system shall provide information satisfactory to the Director as provided in subparagraph (6)(c)2. of this rule describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Director shall review the information and either approve it, or request that additional information be submitted. The Director may specify additional appropriate monitoring procedures.

(e) Each owner or operator seeking to install a collection system that does not meet the specifications in paragraph (8) of this rule or seeking to monitor alternative parameters to those required by paragraphs (2) through (5) of this rule shall provide information satisfactory to the Director as provided in subparagraphs (6)(c)2. And 3. of this rule describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Director may specify additional appropriate monitoring procedures.

(f) Each owner or operator seeking to demonstrate compliance with the 500 parts per million surface methane operational standard in subparagraph (2)(d) of this rule, shall monitor surface concentrations of methane according to the procedures provided in subparagraph (4)(c) of this rule, and the instrument specifications in subparagraph (4)(d) of this rule. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

(g) Each owner or operator seeking to demonstrate compliance with the control system requirements in subparagraph (l)(b) of this rule, using a landfill gas treatment system shall maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific treatment system monitoring plan required in subparagraph (7)5.(ii) of this rule, and shall calibrate, maintain, and operate according to the manufacturer's specifications a device that records flow to the treatment system and bypass of the treatment system (if applicable). The owner or operator shall:

1. Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes; and
2. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(h) The monitoring requirements of subparagraphs (b), (c) (d) and (g) of this paragraph apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The owner or operator shall complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

(6) Reporting Requirements. Except as provided 40 CFR § 60.24 and in subparagraph (6)(c)2. of this rule,

(a) *Design capacity report.* Each owner or operator subject to the requirements of this Chapter shall submit an initial design capacity report to the Director.

1. The initial design capacity report shall fulfill the requirements of the notification of the date construction is commenced as required under § 60.7(a)(1), 40 CFR and shall be submitted no later than 90 days from the effective date of these rules.

2. The initial design capacity report shall contain the following information:

(i) A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the provisions of the State permit;

(ii) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the State permit, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity shall be calculated using good engineering practices. The calculations shall be provided, along with the relevant parameters as part of the report. The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation shall include a site-specific density, which shall be recalculated annually. Any density conversions shall be documented and submitted with the design capacity report. The Director may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

3. If a facility has submitted an initial design capacity report and an initial NMOC emission rate report to the EPA as required by 40 CFR Part 62, Subpart OOO, a copy of that report may be submitted to the Department in lieu of the initial reports required in 335-3-19-.03(6)(a) and 335-3-19-.03(6)(c).

(b) *Amended design capacity report.* An amended design capacity report shall be submitted to the Director providing notification of any increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to meet or exceed 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as

documented in the annual recalculation required in subparagraph (7)(f) of this rule.

(c) *NMOC emission rate report.* Each owner or operator of an existing MSW landfill subject to the requirements of this Chapter with a design capacity equal to or greater than 2.5million megagrams and 2.5 million cubic meters, shall submit an NMOC emission rate report to the Director annually following the procedure specified in subparagraph (i)2. of this paragraph, except as provided for in subparagraph (b)3. of this paragraph. The Director may request such additional information as may be necessary to verify the reported NMOC emission rate.

1. The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in subparagraphs (3)(a) or (b) of this rule, as applicable.

2. The NMOC emission rate report shall be submitted following the procedure specified in subparagraph (i)2. of this paragraph no later than 90 days from the effective date of these rules. 2. The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.

3. If the estimated NMOC emission rate as reported in the annual report to the Director is less than 34 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit, following the procedure specified in subparagraph (i)2. of this paragraph, an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Director. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the Director. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

4. Each owner or operator subject to the requirements of this Chapter is exempted to submit an NMOC emission rate report after the installation of a collection and control system in compliance with subparagraphs (l)(a) and (b) of this rule, during such time as the collection and control system is in operation and in compliance with paragraphs (2) and (4) of this rule.

5. If a facility has submitted an initial design capacity report and an initial NMOC emission rate report to the EPA as required by 40 CFR Part 62, Subpart OOO, a copy of that report may be submitted to the Department in lieu of the initial reports required in 335-3-19-.03(6)(a) and 335-3-19-.03(6)(c).

(d) *Collection and control system design plan.* A design plan for each gas collection and control system shall be prepared and approved by a professional engineer and shall meet the following requirements:

1. The collection and control system as described in the design plan shall meet the design requirements in subparagraphs (l)(a) and (b) of this rule.

2. The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping, or reporting provisions of paragraphs (4) through (7) of this rule, proposed by the owner or operator.

3. The collection and control system design plan shall either conform to specifications for active collection systems in paragraph (8) of this rule, or include a demonstration to the Director's satisfaction of the sufficiency of the alternative provisions to paragraph (8) of this rule.

4. Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall submit a copy of the collection and control system design plan cover page that contains the engineer's seal to the Director within 1 year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year, except as follows::

(i) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in subparagraph (3)(a)3. of this rule and the resulting rate is less than 34 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated NMOC emission rate is equal to or greater than 34 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated NMOC emission rate based on NMOC sampling and analysis, shall be submitted, following the procedures in subparagraph (6)(i)2. of this rule, within 180 days of the first calculated exceedance of 34 megagrams per year.

(ii) If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in subparagraph (3)(a)4. of this rule, and the resulting NMOC emission rate is less than 34 Mg/yr, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the NMOC emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of subparagraph (3)(a)4. of this rule and the resulting site-specific methane generation rate constant (k) shall be submitted to the Director within 1 year of the first calculated NMOC emission rate equaling or exceeding 34 megagrams per year.

(iii) If the owner or operator elects to demonstrate that site-specific surface methane emissions are below 500 parts per million methane, based on

the provisions of subparagraph (3)(a)6. of this rule, then the owner or operator shall submit annually a Tier 4 surface emissions report as specified in this subparagraph (d)4.(iii) following the procedure specified in subparagraph (6)(i)2. of this paragraph until a surface emissions readings of 500 parts per million methane or greater is found. If the Tier 4 surface emissions report shows no surface emissions readings of 500 parts per million methane or greater for four consecutive quarters at a closed landfill, then the landfill owner or operator may reduce Tier 4 monitoring from a quarterly to an annual frequency. The Director may request such additional information as may be necessary to verify the reported instantaneous surface emission readings. The Tier 4 surface emissions report shall clearly identify the location, date and time (to the nearest second), average wind speeds including wind gusts, and reading (in parts per million) of any value 500 parts per million methane or greater, other than non-repeatable, momentary readings. For location, the owner or operator shall determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates shall be in decimal degrees with at least five decimal places. The Tier 4 surface emission report should also include the results of the most recent Tier 1 and Tier 2 results in order to verify that the landfill does not exceed 50 Mg/yr of NMOC.

(I) The initial Tier 4 surface emissions report shall be submitted annually, starting within 30 days of completing the fourth quarter of Tier 4 surface emissions monitoring that demonstrates that site-specific surface methane emissions are below 500 parts per million methane, and following the procedure specified in subparagraph (6)(i)2. of this paragraph.

(II) The Tier 4 surface emissions rate report shall be submitted within 1 year of the first measured surface exceedance of 500 parts per million methane, following the procedure specified in subparagraph (6)(i)2. of this paragraph.

(iv) If the landfill is in the closed landfill subcategory, the owner or operator shall submit a collection and control system design plan to the Director within 1 year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 50 megagrams per year, except as follows:

(I) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in subparagraph (3)(a)3. of this rule, and the resulting rate is less than 50 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated NMOC emission rate is equal to or greater than 50 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated NMOC emission rate based on NMOC sampling and analysis, shall be submitted, following the procedure specified in subparagraph (6)(i)2. of this paragraph, within 180 days of the first calculated exceedance of 50 megagrams per year.

(II) If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant k , as provided in Tier 3 in subparagraph (3)(a)4. of this rule, and the resulting NMOC emission rate is less than 50 megagrams per year, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant k shall be used in the NMOC emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of subparagraph (3)(a)4. of this rule, and the resulting site-specific methane generation rate constant k shall be submitted, following the procedure specified in subparagraph (6)(i)2. of this paragraph, to the Director within 1 year of the first calculated NMOC emission rate equaling or exceeding 50 megagrams per year.

(III) The landfill owner or operator elects to demonstrate surface emissions are low, consistent with the provisions in subparagraph (d)4.(iii) of this paragraph.

(IV) The landfill has already submitted a gas collection and control system design plan consistent with the provisions of Subpart WWW of 40 CFR part 60 or any other requirements of this Chapter.

5. The landfill owner or operator shall notify the Director that the design plan is completed and submit a copy of the plan's signature page. The Director has 90 days to decide whether the design plan should be submitted for review. If the Director chooses to review the plan, the approval process continues as described in subparagraph (c)6. of this paragraph. However, if the Director indicates that submission is not required or does not respond within 90 days, the landfill owner or operator can continue to implement the plan with the recognition that the owner or operator is proceeding at their own risk. In the event that the design plan is required to be modified to obtain approval, the owner or operator shall take any steps necessary to conform any prior actions to the approved design plan and any failure to do so could result in an enforcement action.

6. Upon receipt of an initial or revised design plan, the Director shall review the information submitted under subparagraphs (6)(c)1. through 3. of this paragraph, and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only leachate collection components, and passive systems. If the Director does not approve or disapprove the design plan, or does not request that additional information be submitted within 90 days of receipt, then the owner or operator may continue with implementation of the design plan, recognizing they would be proceeding at their own risk.

7. If the owner or operator chooses to demonstrate compliance with the emission control requirements of this Chapter using a treatment system as defined in this Chapter, then the owner or operator shall prepare a site-specific treatment system monitoring plan as specified in subparagraph (7)(b)5. of this rule.

(e) *Revised design plan.* The owner or operator who has already been required to submit a design plan under subparagraph (c) of this paragraph, or under Subpart WWW of 40 CFR part 60; or any other requirements of this Chapter shall submit a revised design plan to the Director for approval as follows:

1. At least 90 days before expanding operations to an area not covered by the previously approved design plan.
2. Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the Director according to subparagraph (c) of this paragraph.

(f) *Closure report.* Each owner or operator of a controlled landfill shall submit a closure report to the Director within 30 days of waste acceptance cessation. The Director may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of ADEM Admin. Code Chapter 335-13-4. If a closure report has been submitted to the Director, no additional wastes may be placed into the landfill without filing a notification of modification as described under §60.7(a)(4), 40 CFR.

(g) *Equipment removal report.* Each owner or operator of a controlled landfill shall submit an equipment removal report to the Director 30 days prior to removal or cessation of operation of the control equipment.

1. The equipment removal report shall contain all of the following items:

(i) A copy of the closure report submitted in accordance with subparagraph (e) of this paragraph;

(ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX, or information that demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flows. In the equipment removal report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 34 megagrams or greater of NMOC per year, unless the NMOC emission rate reports have been submitted to the EPA via the EPA's CDX. If the NMOC emission rate reports have been

previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports; or

(iv) For the closed landfill subcategory, dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year, unless the NMOC emission rate reports have been submitted to the EPA via the EPA's CDX. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports.

2. The Director may request such additional information as may be necessary to verify that all of the conditions for removal in subparagraph (l)(e)2. of this rule have been met.

(h) *Annual report.* Each owner or operator of a landfill seeking to comply with subparagraph (1)(d) of this rule using an active collection system designed in accordance with subparagraph (l)(a) of this rule shall submit to the Director annual reports of the recorded information in subparagraphs (g)1. through (g)6. of this paragraph. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under §60.8, 40 CFR as applicable, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX. In the initial annual report, the process unit(s) tested, the pollutant(s) tested and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX. The initial performance test report shall be submitted, following the procedure specified in subparagraph (i)1. of this paragraph, no later than the date that the initial annual report is submitted. For enclosed combustion devices and flares, reportable exceedances are defined under subparagraph (7)(c) of this rule. If complying with the operational provisions of 40 CFR §§ 63.1958, 63.1960, and 63.1961, as allowed in paragraphs (2), (4), and (5) of this rule, the owner or operator shall follow the semi-annual reporting requirements in §63.1981(h) in lieu of this paragraph.

1. Value and length of time for exceedance of applicable parameters monitored under subparagraphs (5)(a)1., (b), (c), (d), and (g) of this rule.

2. Description and duration of all periods when the gas stream was diverted from the control device or treatment system through a bypass line or the indication of bypass flow as specified under paragraph (5) of this rule.

3. Description and duration of all periods when the control device or treatment system was not operating and length of time the control device or treatment system was not operating.

4. All periods when the collection system was not operating.

5. The location of each exceedance of the 500 parts per million methane concentration as provided in subparagraph (2)(d) of this rule and the concentration recorded at each location for which an exceedance was recorded in the previous month. For location, the owner or operator shall determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates shall be in decimal degrees with at least five decimal places.

6. The date of installation and the location of each well or collection system expansion added pursuant to subparagraphs (a)3., (a)5., (b), and (c)4. of paragraph (4).

7. For any corrective action analysis for which corrective actions are required in subparagraph (4)(a)3. or 5. of this rule, and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective action(s) already completed following the positive pressure or elevated temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(i) *Initial performance test report.* Each owner or operator seeking to comply with subparagraph (l)(b) of this rule shall include the following information with the initial performance test report required under §60.8, 40 CFR:

1. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;

2. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;

3. The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;

4. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area;

5. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is

inadequate to move the maximum flow rate expected over the life of the landfill;
and

6. The provisions for the control of off-site migration.

(j) *Electronic reporting.* The owner or operator shall submit reports electronically according to subparagraphs (i)1. and 2. of this paragraph.

1. Within 60 days after the date of completing each performance test (as defined in 40 CFR § 60.8), the owner or operator shall submit the results of each performance test according to the following procedures:

(i) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (https://www3.epa.gov/ttn/chief/ert/ert_info.html) at the time of the test, the owner or operator shall submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). Performance test data shall be submitted in a file format generated through the use of the EPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site, once the XML schema is available. If the owner or operator claim that some of the performance test information being submitted is confidential business information (CBI), the owner or operator shall submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage media to the EPA. The electronic media shall be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted shall be submitted to the EPA via the EPA's CDX as described earlier in this subparagraph (i)1.(i) of this paragraph.

(ii) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, the owner or operator shall submit the results of the performance test to the Director at the appropriate address listed in 40 CFR § 60.4.

2. Each owner or operator required to submit reports following the procedure specified in this paragraph shall submit reports to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The owner or operator shall use the appropriate electronic report in CEDRI for this Chapter or an alternate electronic file format consistent with the XML schema listed on the CEDRI Web site (<https://www3.epa.gov/ttn/chief/cedri/index.html>). If the reporting form specific to this Chapter is not available in CEDRI at the time that the report is due, the owner or operator shall submit the report to the Director at the appropriate address listed in §60.4. Once the form has been available in CEDRI for 90 calendar days, the owner or operator shall begin submitting all

subsequent reports via CEDRI. The reports shall be submitted by the deadlines specified in this Chapter, regardless of the method in which the reports are submitted.

(k) *Corrective action and the corresponding timeline.* The owner or operator shall submit according to subparagraphs (k)1. and 2. of this paragraph. If complying with the operational provisions of 40 CFR §§ 63.1958, 63.1960, and 63.1961, as allowed in paragraphs (2), (4), and (5) of this rule, the owner or operator shall follow the corrective action and the corresponding timeline reporting requirements in 40 CFR §63.1981(j) in lieu of subparagraphs (k)(1) and (2) of this paragraph.

1. For corrective action that is required according to subparagraphs (4)(a)3.(iii) or (a)5.(iii) of this rule, and is expected to take longer than 120 days after the initial exceedance to complete, the owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Director as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above. The Director shall approve the plan for corrective action and the corresponding timeline.

2. For corrective action that is required according to subparagraphs (4)(a)3.(iii) or (a)5.(iii) of this rule, and is not completed within 60 days after the initial exceedance, the owner or operator shall submit a notification to the Director as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

(l) *Liquids addition.* The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that has employed leachate recirculation or added liquids based on a Research, Development, and Demonstration permit (issued through Resource Conservation and Recovery Act, subtitle D, part 258) within the last 10 years shall submit to the Director, annually, following the procedure specified in subparagraph (j)2. of this paragraph, the following information:

1. Volume of leachate recirculated (gallons per year) and the reported basis of those estimates (records or engineering estimates).

2. Total volume of all other liquids added (gallons per year) and the reported basis of those estimates (records or engineering estimates).

3. Surface area (acres) over which the leachate is recirculated (or otherwise applied).

4. Surface area (acres) over which any other liquids are applied.

5. The total waste disposed (megagrams) in the areas with recirculated leachate and/or added liquids based on on-site records to the extent data are available, or engineering estimates and the reported basis of those estimates.

6. The annual waste acceptance rates (megagrams per year) in the areas with recirculated leachate and/or added liquids, based on on-site records to the extent data are available, or engineering estimates.

7. The initial report shall contain items in subparagraph (k)1. through 6. of this paragraph per year for the most recent 365 days as well as for each of the previous 10 years, to the extent historical data are available in on-site records, and the report shall be submitted no later than:

(i) September 27, 2017, for landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016; or

(ii) 365 days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016.

8. Subsequent annual reports shall contain items in subparagraph (k)1. through 6. of this paragraph for the 365-day period following the 365-day period included in the previous annual report, and the report shall be submitted no later than 365 days after the date the previous report was submitted.

9. Landfills in the closed landfill subcategory are exempt from reporting requirements contained in subparagraphs (k)1. through 7. of this paragraph.

10. Landfills may cease annual reporting of items in subparagraphs (k)1. through 6. of this paragraph once they have submitted the closure report in subparagraph (e) of this paragraph.

(m) *Tier 4 notification.*

1. The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall provide a notification of the date(s) upon which it intends to demonstrate site-specific surface methane emissions are below 500 parts per million methane, based on the Tier 4 provisions of subparagraph (3)(a)6. of this rule. The landfill shall also include a description of the wind barrier to be used during the SEM in the notification. Notification shall be postmarked not less than 30 days prior to such date.

2. If there is a delay to the scheduled Tier 4 SEM date due to weather conditions, including not meeting the wind requirements in subparagraph (3)(a)6.(iii)(I) of this rule, the owner or operator of a landfill shall notify the Director by email or telephone no later than 48 hours before any known delay in the original test date, and arrange an updated date with the Director by mutual agreement.

(n) Each owner or operator that chooses to comply with the provisions in 40 CFR §§ 63.1958, 63.1960, and 63.1961, as allowed in paragraphs (2), (4),

and (5) of this rule , the owner or operator shall submit the high temperature report according to §63.1981(k).

(7) Recordkeeping Requirements.

(a) Except as provided in subparagraph (6)(c)2. of this rule, each owner or operator of an MSW landfill subject to the provisions of subparagraph (1)(d) of this rule shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered subparagraph (1)(d), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

(b) Except as provided in subparagraph (6)(c)2. of this rule, each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in subparagraphs (b)1. through (b)5. of this paragraph as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

1. Where an owner or operator subject to the provisions of this Chapter seeks to demonstrate compliance with subparagraph (l)(a) of this Rule:

(i) The maximum expected gas generation flow rate as calculated in subparagraph (4)(a)1. of this rule. The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Director.

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in subparagraph (8)(a)1. of this rule.

2. Where an owner or operator subject to the provisions of this Chapter seeks to demonstrate compliance with subparagraph (l)(b) of this rule through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts:

(i) The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test.

(ii) The percent reduction of NMOC determined as specified in subparagraph (l)(b)2. of this paragraph achieved by the control device.

3. Where an owner or operator subject to the provisions of this Chapter seeks to demonstrate compliance with subparagraph (l)(b)2.(i) of this rule through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

4. Where an owner or operator subject to the provisions of this Chapter seeks to demonstrate compliance with subparagraph (l)(b)1. of this rule through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in §60.18, 40 CFR; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

5. Where an owner or operator subject to the provisions of this Chapter seeks to demonstrate compliance with subparagraph (l)(b)3. of this rule through use of a landfill gas treatment system:

(i) *Bypass records.* Records of the flow of landfill gas to, and bypass of, the treatment system.

(ii) *Site-specific treatment monitoring plan,* to include:

(I) Monitoring records of parameters that are identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, records should include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas.

(II) Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas.

(III) Documentation of the monitoring methods and ranges, along with justification for their use.

(IV) Identify who is responsible (by job title) for data collection.

(V) Processes and methods used to collect the necessary data.

(VI) Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

(c) Except as provided in subparagraph (6)(c)2. of this rule, each owner or operator of a controlled landfill subject to the provisions of this Chapter shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in paragraph (5) of this rule as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

1. The following constitute exceedances that shall be recorded and reported under subparagraph (6) of this rule:

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 °C (82 degrees Fahrenheit) below the average combustion temperature during the most recent performance test at which compliance with subparagraph (l)(b) of this rule was determined.

(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under subparagraph (b)3. of this paragraph.

2. Each owner or operator subject to the provisions of this Chapter shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under paragraph (5) of this rule.

3. Each owner or operator subject to the provisions of this Chapter who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with subparagraph (l)(b) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State regulatory requirements.)

4. Each owner or operator seeking to comply with the provisions of this Chapter by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under subparagraph (5)(c) of this rule, and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

5. Each owner or operator of a landfill seeking to comply with subparagraph (l)(d) of this rule using an active collection system designed in accordance with subparagraph (l)(d) of this rule shall keep records of periods when the collection system or control device is not operating.

(d) Except as provided in subparagraph (6)(c)2. of this rule, each owner or operator subject to the provisions of this Chapter shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector that matches the labeling on the plot map.

1. Each owner or operator subject to the provisions of this Chapter shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under subparagraph (4)(b) of this rule.

2. Each owner or operator subject to the provisions of this Chapter shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded

from collection as provided in subparagraph (8)(a)3.(i) of this rule as well as any nonproductive areas excluded from collection as provided in subparagraph (8)(a)3.(ii) of this rule.

(e) Except as provided in subparagraph (6)(d)2. of this rule, each owner or operator subject to the provisions of this Chapter shall keep for at least 5 years up-to-date, readily accessible records of the items in subparagraphs (e)(1) through (5) of this paragraph. Each owner or operator that chooses to comply with the provisions in 40 CFR §§ 63.1958, 63.1960, and 63.1961, as allowed in paragraphs (2), (4), and (5) of this rule, shall keep the records in subparagraph (e)(6) of this paragraph and must keep records according to 40 CFR § 63.1983(e)(1) through (5) in lieu of subparagraphs (e)(1) through (5) of this paragraph.

1. All collection and control system exceedances of the operational standards in paragraph (2) of this rule, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

2. Each owner or operator subject to the provisions of this Chapter shall also keep records of each wellhead temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above, each wellhead nitrogen level at or above 20 percent, and each wellhead oxygen level at or above 5 percent.

3. For any root cause analysis for which corrective actions are required in subparagraph (4)(a)3. or 5. of this rule, keep a record of the root cause analysis conducted, including a description of the recommended corrective action(s) taken, and the date(s) the corrective action(s) were completed.

4. For any root cause analysis for which corrective actions are required in subparagraph (4)(a)3.(ii) or (a)5.(ii) of this rule, keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

5. For any root cause analysis for which corrective actions are required in subparagraph (4)(a)3.(iii) or (a)5.(iii) of this rule, keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the regulatory agency.

6. Each owner or operator that chooses to comply with the provisions in 40 CFR §§ 63.1958, 63.1960, and 63.1961, shall keep records of the date upon which the owner or operator started complying with the provisions in §§ 63.1958, 63.1960, and 63.1961.

(f) Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided in the definition of "design capacity", shall keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic format are acceptable.

(g) Landfill owners or operators seeking to demonstrate that site-specific surface methane emissions are below 500 parts per million by conducting surface emission monitoring under the Tier 4 procedures specified in subparagraph (3)(a)6. of this rule shall keep for at least 5 years up-to-date, readily accessible records of all surface emissions monitoring and information related to monitoring instrument calibrations conducted according to sections 8 and 10 of Method 21 of appendix A of 40 CFR Part 60, including all of the following items:

1. Calibration records:

(i) Date of calibration and initials of operator performing the calibration.

(ii) Calibration gas cylinder identification, certification date, and certified concentration.

(iii) Instrument scale(s) used.

(iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value.

(v) If an owner or operator makes their own calibration gas, a description of the procedure used.

2. Digital photographs of the instrument setup. The photographs shall be time and date-stamped and taken at the first sampling location prior to sampling and at the last sampling location after sampling at the end of each sampling day, for the duration of the Tier 4 monitoring demonstration.

3. Timestamp of each surface scan reading:

(i) Timestamp should be detailed to the nearest second, based on when the sample collection begins.

(ii) A log for the length of time each sample was taken using a stopwatch (*e.g.*, the time the probe was held over the area).

4. Location of each surface scan reading. The owner or operator shall determine the coordinates using an instrument with an accuracy of at least 4 meters. Coordinates shall be in decimal degrees with at least five decimal places.

5. Monitored methane concentration (parts per million) of each reading.

6. Background methane concentration (parts per million) after each instrument calibration test.

7. Adjusted methane concentration using most recent calibration (parts per million).

8. For readings taken at each surface penetration, the unique identification location label matching the label specified in subparagraph (d) of this paragraph.

9. Records of the operating hours of the gas collection system for each destruction device.

(h) Except as provided in subparagraph (6)(c)2. of this rule, each owner or operator subject to the provisions of this Chapter shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in subparagraphs (5)(a)1., 2., and 3. of this rule.

(i) Any records required to be maintained by this Chapter that are submitted electronically via the EPA's CDX may be maintained in electronic format.

(j) For each owner or operator reporting leachate or other liquids addition under subparagraph (6)(k) of this rule, keep records of any engineering calculations or company records used to estimate the quantities of leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste acceptance or total waste in place in the areas where leachate or liquids were applied.

(8) Specifications for Active Collection Systems.

(a) Each owner or operator seeking to comply with subparagraph (1)(a) of this rule shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Director.

1. The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, resistance to the refuse decomposition heat, and ability to isolate individual components or sections for repair or troubleshooting without shutting down entire collection system.

2. The sufficient density of gas collection devices determined in subparagraph (a)1. of this paragraph shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

3. The placement of gas collection devices determined in subparagraph (a)1. of this paragraph shall control all gas producing areas, except as provided by subparagraphs (a)3.(i) and (a)3.(ii) of this paragraph.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under subparagraph (7)(d) of this rule. The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Director upon request.

(ii) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Director upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill.

(I) The NMOC emissions from each section proposed for exclusion shall be computed using the following equation:

$$Q_i = 2kL_oM_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

Q_i = NMOC emission rate from the i^{th} section, megagrams per year

k = methane generation rate constant, year⁻¹

L_o = methane generation potential, cubic meters per megagram solid waste

M_i = mass of the degradable solid waste in the i^{th} section, megagram

t_i = age of the solid waste in the i^{th} section, years

C_{NMOC} = concentration of nonmethane organic compounds, parts per million by volume

3.6×10^{-9} = conversion factor

(II) If the owner or operator is proposing to exclude, or cease gas collection and control from, nonproductive physically separated (*e.g.*, separately lined) closed areas that already have gas collection systems, NMOC emissions from each physically separated closed area shall be computed using either

equation in subparagraph (3)(b) of this rule, or the equation in subparagraph (a)3.(ii)(I) of this paragraph.

(iii) The values for k , and C_{NMOC} determined in field testing shall be used, if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k , L_0 and C_{NMOC} provided in paragraph (3) of this rule or the alternative values from paragraph (3) of this rule shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in subparagraph (a)3.(i) of this paragraph.

(b) Each owner or operator seeking to comply with subparagraph (l)(a) of this rule shall construct the gas collection devices using the following equipment or procedures:

1. The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

2. Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

3. Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

(c) Each owner or operator seeking to comply with subparagraph (l)(b) of this rule shall convey the landfill gas to a control system in compliance with subparagraph (l)(b) of this rule through the collection header pipe(s). The gas

mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

1. For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in subparagraph (c)2. of this paragraph shall be used.

2. For new collection systems, the maximum flow rate shall be in accordance with subparagraph (4)(a)1. of this rule.

Author: Ronald W. Gore

Statutory Authority: Code of Alabama 1975, §§22-28-14, 22-22A-5, 22-22A-6, 22-22A-8.

History: Filed: October 12, 2021; Effective: December 13, 2021.

335-3-19-.04 Compliance Schedules.

(1) Planning, awarding of contracts, installing, and starting up MSW landfill air emission collection and control equipment that is capable of meeting the emission standards under this Chapter shall be completed within 30 months after the date an NMOC emission rate report shows NMOC emissions equal or exceed 34 megagrams per year (50 megagrams per year for the closed landfill subcategory); or (2) Within 30 months after the date of the most recent NMOC emission rate report that shows NMOC emissions equal or exceed 34 megagrams per year (50 megagrams per year for the closed landfill subcategory), if Tier 4 surface emissions monitoring shows a surface emission concentration of 500 parts per million methane or greater.

Author: Ronald W. Gore

Statutory Authority: Code of Alabama 1975, §§22-28-14, 22-22A-5, 22-22A-6, 22-22A-8.

History: Filed: October 12, 2021; Effective: December 13, 2021.

335-3-19-.05 Petition for Alternative Standards and Compliance Schedules.

(1) A MSW landfill owner or operator may request through petition, alternative emission standards or a longer compliance schedule that is/are not specified in this Chapter through the following procedures.

(a) Petition Requirements. To enable the Department to rule on the Petition, the following information, where determined applicable by the Department, shall be included in the petition:

1. A clear and complete statement of the precise extent of the relief sought including specific identification of the particular provisions of the regulations from which the relief is sought. The criteria for relief include:

(i) Unreasonable cost of control resulting from landfill age, location, or basic design:

(ii) Physical impossibility of installing necessary control equipment; or

(iii) Other factors specific to the landfill that make application of a less stringent standard or final compliance time significantly more reasonable.

~~(2)2.~~ An assessment, with supporting factual information, of the impact that the petition will impose on the public health and the environment in the affected area.

~~(3)3.~~ Any additional information requested by the Department as necessary to evaluate the petition.

~~(4)4.~~ A concise factual statement of the reasons the petitioner believes that alternative emission limits or a longer compliance schedule will not threaten the public health or unreasonably create environmental pollution.

(b) Extension of Prior or Existing Alternative Emission Standards or Compliance Schedule. A petition to extend a prior or existing petition granted by the Department shall be commenced by filing a new petition with the Department in accordance with the requirements of paragraph (1) of this rule. To the extent that the information required by paragraph (1) of this rule has been included in the prior petition for which extension is sought, a submission of that information shall not be required provided that the petition shall request the incorporation of the record, opinion and order in the prior proceeding into the new petition.

(c) Department Actions on Petitions. On receipt of a petition, the Department will authorize one of the following actions, as they shall determine:

1. The petition may be dismissed if the Department determines that it is not adequate under paragraph (1) of this rule.

2. The Department may grant the request of the petition, as petitioned or by imposing such conditions as this Division may require in the Major Source Operating Permit, including the establishment of schedules of compliance and monitoring requirements, if EPA consents to the alternative emission standards or compliance schedule as submitted to EPA by the Department.

3. The Department may deny the petition. If such a denial is made, the Department shall notify the petitioner in writing, state the reasons for denial and outline procedures for appeal.

(d) Termination Procedures. Any petition granted by the Department may be terminated by the Department whenever the Department finds, after an opportunity for the petitioner to demonstrate compliance and after notice and an opportunity for hearing, that the petitioner is in violation of any requirement, condition, schedule, limitation or any other provision of the petition or that operation under the petition does not meet the minimum requirements established by state and federal laws and regulations or is unreasonably threatening the public health.

Author: Ronald W. Gore

Statutory Authority: Code of Alabama 1975, §§22-28-14, 22-22A-5, 22-22A-6, 22-22A-8.

History: Filed: October 12, 2021; Effective: December 13, 2021.

APPENDIX C

Environmental Protection Agency Regulations Reference Documents

Cross Referenced to ADEM Rules and Regulations

New Source Performance Standards National Emission Standards For Hazardous Air Pollutants

The complete text of all finalized EPA regulations incorporated into these regulations is located in the documents listed below. Amendments, revisions, or clarifications of EPA regulations which have been codified in the CFR, as well as of finalized regulations which have not yet been codified, are not included in this listing and interested parties are advised to consult the Federal Register for such amendments or revisions. The exceptions listed below are identified by EPA as nondelegable to the States.

ADEM Chapter 335-3-10	40 CFR Part 60	Exceptions
335-3-10-.02(1) Subpart A	Subpart A	§60.8(b)(2) §60.8(b)(3) §60.11(e)(7) §60.11(e)(8) §60.13(g) §60.13(i) §60.13(j)(2)
335-3-10-.02(2)Subpart D	Subpart D	
335-3-10-.02(2)(a) Subpart Da	Subpart Da	§60.45a
335-3-10-.02(2)(b) Subpart Db	Subpart Db	§60.44b(f) §60.44b(g) §60.49b(a)(4)
335-3-10-.02(2)(c) Subpart Dc	Subpart Dc	§60.48c(a)(4)
335-3-10-.02(3) Subpart E	Subpart E	
335-3-10-.02(3)(a) Subpart Ea	Subpart Ea	
335-3-10-.02(3)(b) Subpart Eb	Subpart Eb	
335-3-10-.02(3)(c) Subpart Ec	Subpart Ec	§60.50c(i)
335-3-10-.02(4) Subpart F	Subpart F	§60.66

ADEM Chapter 335-3-10	40 CFR Part 60	Exceptions
335-3-10-.02(5) Subpart G	Subpart G	
335-3-10-.02(5)(a) Subpart Ga	Subpart Ga	
335-3-10-.02(6) Subpart H	Subpart H	
335-3-10-.02(7) Subpart I	Subpart I	
335-3-10-.02(8) Subpart J	Subpart J	§60.105(a)(13)(iii) §60.106(i)(12)
335-3-10-.02(8) (a) Subpart Ja	Subpart Ja	§60.109b
335-3-10-.02(9) Subpart K	Subpart K	
335-3-10-.02(9)(a) Subpart Ka	Subpart Ka	§60.114a
335-3-10-.02(9)(b) Subpart Kb	Subpart Kb	§60.111b(f)(4) §60.114(b) §60.116(e)(3)(iii) §60.116(e)(3)(iv) §60.116b(f)(2)(iii)
335-3-10-.02(12) Subpart L	Subpart L	
335-3-10-.02(13) Subpart M	Subpart M	
335-3-10-.02(14) Subpart N	Subpart N	
335-3-10-.02(14)(a) Subpart Na	Subpart Na	
335-3-10-.02(15) Subpart O	Subpart O	§60.153(e)
335-3-10-.02(16) Subpart P	Subpart P	
335-3-10-.02(17) Subpart Q	Subpart Q	
335-3-10-.02(18) Subpart R	Subpart R	
335-3-10-.02(19) Subpart S	Subpart S	
335-3-10-.02(20) Subpart T	Subpart T	
335-3-10-.02(21) Subpart U	Subpart U	
335-3-10-.02(22) Subpart V	Subpart V	
335-3-10-.02(23) Subpart W	Subpart W	
335-3-10-.02(24) Subpart X	Subpart X	
335-3-10-.02(25) Subpart Y	Subpart Y	
335-3-10-.02(26) Subpart Z	Subpart Z	
335-3-10-.02(27) Subpart AA	Subpart AA	

ADEM Chapter 335-3-10	40 CFR Part 60	Exceptions
335-3-10-.02(27)(a) Subpart AAa	Subpart AAa	
335-3-10-.02(28) Subpart BB	Subpart BB	
335-3-10-.02(28) Subpart BBa	Subpart BBa	
335-3-10-.02(29) Subpart CC	Subpart CC	
335-3-10-.02(30) Subpart DD	Subpart DD	
335-3-10-.02(31) Subpart EE	Subpart EE	§60.316(d)
335-3-10-.02(32) Subpart FF	Reserved	
335-3-10-.02(33) Subpart GG	Subpart GG	§60.334(b)(2) §60.335(f)(1)
335-3-10-.02(34) Subpart HH	Subpart HH	
335-3-10-.02(35) Subpart II	Reserved	
335-3-10-.02(36) Subpart JJ	Reserved	
335-3-10-.02(37) Subpart KK	Subpart KK	
335-3-10-.02(38) Subpart LL	Subpart LL	
335-3-10-.02(39) Subpart MM	Subpart MM	
335-3-10-.02(40) Subpart NN	Subpart NN	
335-3-10-.02(41) Subpart OO	Reserved	
335-3-10-.02(42) Subpart PP	Subpart PP	
335-3-10-.02(43) Subpart QQ	Subpart QQ	
335-3-10-.02(44) Subpart RR	Subpart RR	§60.446(c)
335-3-10-.02(45) Subpart SS	Subpart SS	§60.456(d)
335-3-10-.02(46) Subpart TT	Subpart TT	§60.466(d)
335-3-10-.02(47) Subpart UU	Subpart UU	§60.474(g)
335-3-10-.02(48) Subpart VV	Subpart VV	§60.482-1(c)(2) §60.484
335-3-10-.02(48)(a) Subpart VVa	Subpart VVa	
335-3-10-.02(49) Subpart WW	Subpart WW	§60.496(c)
335-3-10-.02(50) Subpart XX	Subpart XX	§60.502(e)(6)
335-3-10-.02(51) Subpart YY	Reserved	
335-3-10-.02(52) Subpart ZZ	Reserved	
335-3-10-.02(53) Subpart AAA	Reserved	

ADEM Chapter 335-3-10	40 CFR Part 60	Exceptions
335-3-10-.02(54) Subpart BBB	Subpart BBB	§60.543(c)(2)(ii)(B)
335-3-10-.02(55) Subpart CCC	Reserved	
335-3-10-.02(56) Subpart DDD	Subpart DDD	§60.562-2(c)
335-3-10-.02(57) Subpart EEE	Reserved	
335-3-10-.02(58) Subpart FFF	Subpart FFF	
335-3-10-.02(59) Subpart GGG	Subpart GGG	
335-3-10-.02(59)(a) Subpart GGGa	Subpart GGGa	
335-3-10-.02(60) Subpart HHH	Subpart HHH	
335-3-10-.02(61) Subpart III	Subpart III	§60.613(e)
335-3-10-.02(62) Subpart JJJ	Subpart JJJ	
335-3-10-.02(63) Subpart KKK	Subpart KKK	
335-3-10-.02(64) Subpart LLL	Subpart LLL	
335-3-10-.02(65) Subpart MMM	Reserved	
335-3-10-.02(66) Subpart NNN	Subpart NNN	§60.663(e)
335-3-10-.02(67) Subpart OOO	Subpart OOO	
335-3-10-.02(68) Subpart PPP	Subpart PPP	
335-3-10-.02(69) Subpart QQQ	Subpart QQQ	
335-3-10-.02(70) Subpart RRR	Subpart RRR	§60.703(e)
335-3-10-.02(71) Subpart SSS	Subpart SSS	§60.711(a)(16) §60.713(b)(1)(i) §60.713(b)(1)(ii) §60.713(b)(5)(i) §60.713(d) §60.715(a) §60.716
335-3-10-.02(72) Subpart TTT	Subpart TTT	§60.723(b)(1) §60.723(b)(2)(i)(C) §60.723(b)(2)(iv) §60.724(e) §60.725(b)

ADEM Chapter 335-3-10	40 CFR Part 60	Exceptions
335-3-10-.02(73) Subpart UUU	Subpart UUU	
335-3-10-.02(74) Subpart VVV	Subpart VVV	§60.743(a)(3)(v)(A) §60.743(a)(3)(v)(B) §60.743(e) §60.745(a) §60.746
335-3-10-.02(75) Subpart WWW	Subpart WWW	§60.754(a)(5)
335-3-10-.02(76) Subpart XXX	Subpart XXX	§60.764(a)(5)
335-3-10-.02(77) Reserved	Reserved	
335-3-10-.02(78) Reserved	Reserved	
335-3-10-.02(79) Subpart AAAA	Subpart AAAA	
335-3-10-.02(80) Reserved	Reserved	
335-3-10-.02(81) Subpart CCCC	Subpart CCCC	§60.2030 <u>(c)</u> §60.2115 §60.2100(b)(2)
335-3-10-.02(82) Reserved	Reserved	
335-3-10-.02(83) Reserved	Reserved	
335-3-10-.02(84) Reserved	Reserved	
335-3-10-.02(85) Reserved	Reserved	
335-3-10-.02(86) Reserved	Reserved	
335-3-10-.02(87) Subpart IIII	Subpart IIII	
335-3-10-.02(88) Subpart JJJJ	Subpart JJJJ	
335-3-10-.02(89) Subpart KKKK	Subpart KKKK	
335-3-10-.02(90) Subpart LLLL	Subpart LLLL	§60.4785(c)
335-3-10-.02(91) Subpart OOOO	Subpart OOOO	
335-3-10-.02(91a) Subpart OOOOa	Subpart OOOOa	
335-3-10-.02 (92) Reserved	Reserved	
335-3-10-.02 (93) Reserved	Reserved	
335-3-10-.02 (94) Reserved	Reserved	
335-3-10-.02 (95) Reserved	Reserved	
335-3-10-.02 (96) TTTT	Subpart TTTT	§60.5575(b)

ADEM Chapter 335-3-10

40 CFR Part 60

Exceptions

History: Effective Date: May 25, 1976.

Amended: June 23, 1981; February 13, 1985; April 15, 1987; June 16, 1988; September 21, 1989; November 1, 1990; March 28, 1991; July 31, 1991; September 19, 1991; October 24, 1991; December 28, 1993; April 27, 1995; November 21, 1996; September 25, 1997; March 27, 1998; July 15, 1999; January 13, 2000; September 7, 2000; March 14, 2002; October 3, 2002; April 3, 2003; October 2, 2003; March 22, 2005; December 12, 2005; July 11, 2006; November 14, 2006; April 3, 2007; January 22, 2008; August 5, 2008; January 19, 2009; March 30, 2010; May 23, 2011; May 29, 2012; January 22, 2013; ~~May 28, 2013; September 24, 2013; November 24, 2015; June 9, 2017;~~ Amended: **Proposed: July 20, 2021.**

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(1) Subpart A	Subpart A	§63.6(g) §63.6(h)(9) §63.7(e)(2)(ii) §63.7(f) §63.8(f) §63.10(f)
335-3-11-.06(2) Subpart B	Subpart B	
335-3-11-.06(3) Subpart D	Subpart D	
335-3-11-.06(4) Reserved	Reserved	
335-3-11-.06(5) Subpart F	Subpart F ¹	See Footnote
335-3-11-.06(6) Subpart G	Subpart G	§63.153(c)(1)-(4)

¹ The following are not delegable: (1) Approval of alternatives to requirements in §§ 63.100, 63.102, and 63.104. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-4-11-.06(7) Subpart H	Subpart H ²	See Footnote
335-3-11-.06(8) Subpart I	Subpart I ³	See Footnote
335-3-11-.06(9) Reserved	Reserved	
335-3-11-.06(10) Reserved	Reserved	
335-3-11-.06(11) Subpart L	Subpart L ⁴	See Footnote
335-3-11-.06(12) Subpart M	Subpart M ⁵	See Footnote

² The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.160, 63.162 through 63.176, 63.178 through 63.179. Follow the applicable procedures of § 63.177 to request an alternative means of emission limitation for batch processes and enclosed-vented process units. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. Where these standards reference another subpart and modify the requirements, the requirements shall be modified as described in this subpart. Delegation of the modified requirements will also occur according to the delegation provisions of the referenced subpart. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90,

and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

³ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.190 and 63.192(a) through (b), (e), and (h) through (j). Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

⁴ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.300 and 63.302 through 63.308 (except the authorities in 63.306(a)(2) and (d)). (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of any changes to section 2 of Method 303 in appendix A of this part. (4) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (5) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

⁵ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.320 and 63.322(a) through (j). Follow the requirements in § 63.325 to

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(13) Subpart N	Subpart N	§63.348(c)(1)-(4)
335-3-11-.06(14) Subpart O	Subpart O	§63.368(c)(1)-(4)
335-3-11-.06(15) Reserved	Reserved	
335-3-11-.06(16) Subpart Q	Subpart Q ⁶	See Footnote
335-3-11-.06(17) Subpart R	Subpart R ⁷	<u>§63.429(c)</u> See
335-3-11-.06(18) Subpart S	Subpart S ⁸	See Footnote

demonstrate that alternative equipment or procedures are equivalent to the requirements of § 63.322. (2) Approval of major alternatives to test methods under 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

⁶ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.400 and 63.402 through 63.403. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in §

63.90, and as required in this subpart.

~~⁷The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.420, 63.422 through 63.423, and 63.424. Any owner or operator requesting to use an alternative means of emission limitation for storage vessels covered by § 63.423 must follow the procedures in § 63.426. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart, and any alternatives to § 63.427(a)(1) through (4) per § 63.427(a)(5). (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.~~

⁸ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.440, 63.443 through 63.447 and 63.450. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. (2) Approval of alternatives to using §§ 63.457(b)(5)(iii), 63.457(c)(5)(ii) through (iii), and 63.257(c)(5)(ii), and any major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of alternatives using § 64.453(m) and any major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(19) Subpart T	Subpart T ⁹	See Footnote
335-3-11-.06(20) Subpart U	Subpart U ¹⁰	See Footnote
335-3-11-.06(21) Reserved	Reserved	
335-3-11-.06(22) Subpart W	Subpart W ¹¹	See Footnote

recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

⁹ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.460, 63.462(a) through (d), and 63.463 through 63.464 (except for the authorities in § 63.463(d)(9)). Use the procedures in § 63.469 to request the use of alternative equipment or procedures. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

¹⁰ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.480 through 63.481, 63.483(a) through (c), 63.484, 63.485(a) through (k), (m), through (s), (u), 63.486 through 63.487, 63.488(a), (b)(1) through (4), (5)(iv) through (v), (6) through (7), (c) through (i), 63.493 through 63.494, 63.500(a)(1) through (3), (b), 63.501, 63.502(a) through (f), (i), (k) through (m), and 63.503. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. Where these standards reference another subpart and

modify the requirements, the requirements shall be modified as described in this subpart. Delegation of the modified requirements will also occur according to the delegation provisions of the referenced subpart. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

¹¹ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.520, 63.521, 63.523, and 63.524. Where these standards reference another rule, the cited provisions in that rule will be delegated according to the delegation provisions of that rule. (2) Approval of major alternatives to test methods for under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(23) Subpart X	Subpart X	§63.551(c)(1)-(4)
335-3-11-.06(24) Subpart Y	Subpart Y	§63.568(c)(1)-(4)
335-3-11-.06(25) Reserved	Reserved	
335-3-11-.06(26) Subpart AA	Subpart AA	§63.611(b)(1)-(5)
335-3-11-.06(27) Subpart BB	Subpart BB	§63.632(b)
335-3-11-.06(28) Subpart CC	Subpart CC	§63.656(c)(1)-(4)
335-3-11-.06(29) Subpart DD	Subpart DD ¹²	See Footnote
335-3-11-.06(30) Subpart EE	Subpart EE ¹³	See Footnote
335-3-11-.06(31) Reserved	Reserved	
335-3-11-.06(32) Subpart GG	Subpart GG	§63.759(c)(1)-(4)
335-3-11-.06(33) Subpart HH	Subpart HH ¹⁴	See Footnote
335-3-11-.06(34) Subpart II	Subpart II ¹⁵	See Footnote

¹² The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.680, 63.683 through 63.691, and 63.693. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

¹³ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.701 and 63.703. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90,

and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

¹⁴ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.760, 63.764 through 63.766, 63.769, 63.771, and 63.777. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

¹⁵ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.780 through 63.781, and 63.783 through 63.784. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90,

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(35) Subpart JJ	Subpart JJ ¹⁶	See Footnote
335-3-11-.06(36) Subpart KK	Subpart KK ¹⁷	See Footnote
335-3-11-.06(37) Reserved	Reserved	
335-3-11-.06(38) Subpart MM	Subpart MM ¹⁸	<u>§63.868(b)Se</u>
335-3-11-.06(39) Reserved	Reserved	
335-3-11-.06(40) Subpart OO	Subpart OO ¹⁹	See Footnote

and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

¹⁶ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.800, 63.802, and 63.803(a)(1), (b), (c) introductory text, and (d) through (l). (2) Approval of alternatives to the monitoring and compliance requirements in §§ 63.804(f)(4)(iv)(D) and (E), 63.804(g)(4)(iii)(C), 63.804(g)(4)(vi), and 63.804(g)(6)(vi). (3) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart, as well as approval of any alternatives to the specific test methods under §§ 63.805(a), 63.805(d)(2)(v), and 63.805(e)(1). (4) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (5) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

¹⁷ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.820 through 63.821 and 63.823 through 63.826. (2) Approval of alternatives to the test method for organic HAP content determination in § 63.827(b) and alternatives to the test method for volatile matter in § 63.827(c), and major alternatives to other test methods under § 63.7(e)((2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting

under § 63.10(f), as defined in defined in § 63.90, and as required in this subpart.

~~¹⁸ The following are not delegable: (1) Pursuant to §63.6(g), approval of alternatives to standards in §63.862. (2) Pursuant to §63.7(e)(2)(ii) and (f) and as defined in §63.90, approval of major alternatives to test methods. (3) Pursuant to §63.8(f) and as defined in §63.90, approval of major alternatives to monitoring. (4) Pursuant to §63.10(f) and as defined in §63.90, approval of major alternatives to recordkeeping and reporting.~~

¹⁹ The following are not delegable: (1) Approval of alternatives to the requirements in § 63.900 and 63.902. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3)

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(41) Subpart PP	Subpart PP ²⁰	See Footnote
335-3-11-.06(42) Subpart QQ	Subpart QQ ²¹	See Footnote
335-3-11-.06(43) Subpart RR	Subpart RR ²²	See Footnote
335-3-11-.06(44) Subpart SS	Subpart SS ²³	§63.992(b) See Footnote

Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

²⁰ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.920 and 63.922 through 63.924. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

²¹ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.940, 63.942, and 63.943. Where these standards reference subpart DD, the cited provisions will be delegated according to the delegation provisions of subpart DD. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

²² The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.960 and 63.962. Where these standards reference subpart DD, the cited provisions will be delegated according to the delegation provisions subpart DD of this part. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as

required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

~~²³ The following are not delegable: (1) Approval of alternatives to the non-opacity emissions standards in § 63.983(a) and (d), 63.984, 63.985(a), 63.986(a), 63.987(a), 63.988(a), 63.990(a), 63.993(a), 63.994(a), and 63.995(a) under § 63.6(g). Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. (2) Reserved. (3) Approval of major changes to test methods under § 63.7(e)(2)(ii) and~~

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(45) Subpart TT	Subpart TT ²⁴	See Footnote
335-3-11-.06(46) Subpart UU	Subpart UU ²⁵	See Footnote
335-3-11-.06(47) Subpart VV	Subpart VV ²⁶	See Footnote
335-3-11-.06(48) Subpart WW	Subpart WW ²⁷	See Footnote

~~(f) and as defined in § 63.90. (4) Approval of major changes to monitoring under § 63.8(f) and as defined in § 63.90. (5) Approval of major changes to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

²⁴ The following are not delegable: (1) Approval of alternatives to the non-opacity emissions standards in § 63.1003 through 63.1015, under § 63.6(g). Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. (2) Reserved. (3) Approval of major changes to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (4) Approval of major changes to monitoring under § 63.8(f) and as defined in § 63.90. (5) Approval of major changes to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

²⁵ The following are not delegable: (1) Approval of alternatives to the non-opacity emissions standards in § 63.1022 through 63.1034, under § 63.6(g), and the standards for quality improvement programs in § 63.1035. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. (2) Reserved. (3) Approval of major changes to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (4) Approval of major changes to monitoring under § 63.8(f) and as defined in § 63.90. (5) Approval of major changes to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

²⁶ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.1040 and 63.1042 through 63.1045. Where these standards reference subpart DD, the cited provisions will be delegated according to the delegation provisions of subpart DD of this part. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

²⁷ The following are not delegable: (1) Approval of alternatives to the non-opacity

emissions standards in §§ 63.1062 and 63.1063(a) and (b) for alternative means of emission limitation, under § 63.6(g). (2) Reserved. (3) Approval of major changes to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (4) Approval of major changes to monitoring under § 63.8(f) and as defined in § 63.90. (5) Approval of major changes to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(49) Subpart XX	Subpart XX ²⁸	<u>§63.1097(b)</u> See
335-3-11-.06(50) Subpart YY	Subpart YY	§63.1114(b)(1)-(5)
335-3-11-.06(51) Reserved	Reserved	
335-3-11-.06(52) Reserved	Reserved	
335-3-11-.06(53) Reserved	Reserved	
335-3-11-.06(54) Subpart CCC	Subpart CCC ²⁹	See Footnote
335-3-11-.06(55) Subpart DDD	Subpart DDD	§63.1195(c)
335-3-11-.06(56) Subpart EEE	Subpart EEE ³⁰	See Footnote
335-3-11-.06(57) Reserved	Reserved	
335-3-11-.06(58) Subpart GGG	Subpart GGG	§63.1261(c)(1)-(4)

~~²⁸The following are not delegable: (1) Approval of alternatives to the non opacity emissions standards in §§ 63.1085, 63.1086 and 63.1095 under § 63.6(g). Where these standards reference another subpart, the cited provisions will be delegated provisions of the referenced subpart. (2) Reserved. (3) Approval of major changes to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (4) Approval of major changes to monitoring under § 63.90. (5) Approval of major changes to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

²⁹ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.1155, 63.1157 through 63.1159, and 63.1160(a). (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of any alternative measurement methods for HCl and CL₂ to those specified in § 63.1161(d)(1). (4) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (5) Approval of any alternative monitoring requirements to those specified in §§ 63.1162(a)(2) through (5) and 63.1162(b)(1) through (3). (6) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart. (7) Waiver of recordkeeping requirements specified in § 63.1165. (8) Approval of an alternative schedule for conducting performance tests to the requirement specified in § 63.1162 (a)(1).

³⁰ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.1200, 63.1203 through 63.1205, and 63.1206(a). (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4)

Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(59) Subpart HHH	Subpart HHH ³¹	See Footnote
335-3-11-.06(60) Subpart III	Subpart III	§63.1309(c)(1)-(4)
335-3-11-.06(61) Subpart JJJ	Subpart JJJ	§63.1336(c)(1)-(4)
335-3-11-.06(62) Reserved	Reserved	
335-3-11-.06(63) Subpart LLL	Subpart LLL	§63.1358
335-3-11-.06(64) Subpart MMM	Subpart MMM	§63.1369(c)(1)-(4)
335-3-11-.06(65) Subpart NNN	Subpart NNN	§63.1388(c)
335-3-11-.06(66) Subpart OOO	Subpart OOO	§63.1419(c)(1)-(4)
335-3-11-.06(67) Subpart PPP	Subpart PPP	§63.1421(c)(1)-(4)
335-3-11-.06(68) Reserved	Reserved	
335-3-11-.06(69) Subpart RRR	Subpart RRR	§63.1519(c)(1)-(4)
335-3-11-.06(70) Reserved	Reserved	
335-3-11-.06(71) Reserved	Reserved	
335-3-11-.06(72) Subpart UUU	Subpart UUU	§63.1578(c)(1)-(5)
335-3-11-.06(73) Subpart VVV	Subpart VVV ³²	See Footnote
335-3-11-.06(74) Reserved	Reserved	
335-3-11-.06(75) Subpart XXX	Subpart XXX ³³	See Footnote

³¹ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.1270, 63.1274 through 63.1275, 63.1281, and 63.1287. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

³² The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.1580, 63.1583 through 63.1584, and 63.1586 through 63.1587. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

³³ The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.1650 and 63.1652 through 63.1654. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(76) Reserved	Reserved	
335-3-11-.06(77) Reserved	Reserved	
335-3-11-.06(78) Subpart AAAA	Subpart AAAA ³⁴	<u>§63.1985(c)</u> §
335-3-11-.06(79) Reserved	Reserved	
335-3-11-.06(80) Subpart CCCC	Subpart CCCC	
335-3-11-.06(81) Subpart DDDD	Subpart DDDD ³⁵	<u>§63.2291(c)</u> §
335-3-11-.06(82) Subpart EEEE	Subpart EEEE ³⁶	<u>§63.2402(b)</u> §
335-3-11-.06(83) Subpart FFFF	Subpart FFFF ³⁷	<u>§63.2545(b)</u> §
335-3-11-.06(84) Subpart GGGG	Subpart GGGG	<u>§63.2871(c)</u>

alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

~~³⁴The following is not delegable: Approval of alternatives to the standards in §63.1955.~~

~~³⁵The following is not delegable: (1) Approval of alternatives to the compliance options, operating requirements, and work practice requirements in §§ 63.2240 and 63.2241 as specified in § 63.6(g). For the purposes of delegation authority under 40 CFR part 63, subpart E, "compliance options" represent "emission limits"; "operating requirements" represent "operating limits"; and "work practice requirements" represent "work practice standards." (2) Approval of major alternatives to test methods as specified in § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major alternatives to monitoring as specified in § 63.8(f) and as defined in § 63.90. (4) Approval of major alternatives to recordkeeping and reporting as specified in § 63.10(f) and as defined in § 63.90. (5) Approval of PCWP sources demonstrations of eligibility for the low risk subcategory developed according to appendix B of this subpart.~~

~~³⁶The following are not delegable: (1) Approval of alternatives to the non opacity emission limitations, operating limits, and work practice standards in § 63.2346(a) through (c) under § 63.6(g). (2) Approval of major changes to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major changes to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major changes to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

~~³⁷The following are not delegable: (1) Approval of alternatives to the non opacity emission limits and work practice standards in § 63.2450(a) under § 63.6(g). (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(85) Subpart HHHH	Subpart HHHH ³⁸	See Footnote
335-3-11-.06(86) Subpart IIII	Subpart IIII ³⁹	§63.3175(c)§
335-3-11-.06(87) Subpart JJJJ	Subpart JJJJ ⁴⁰	§63.3420(b)§
335-3-11-.06(88) Subpart KKKK	Subpart KKKK ⁴¹	§63.3560(c)§
335-3-11-.06(89) Reserved	Reserved	
335-3-11-.06(90) Subpart MMMM	Subpart MMMM ⁴²	§63.3980(c)§
335-3-11-.06(91) Subpart NNNN	Subpart NNNN ⁴³	§63.4180(c)§ ee Footnote

³⁸ The following are not delegable: (1) The authority under § 63.6(g) to approve alternatives to the emission limits in §63.2983 and operating limits in § 63.2984. (2) The authority under § 63.7(e)(2)(ii) and (f) to approve of major alternatives (as defined in § 63.90) to the test methods in § 63.2993. (3) The authority under § 63.8(f) to approve major alternatives (as defined in § 63.90) to the monitoring requirements in §§ 63.2996 and 63.2997. (4) The authority under § 63.10(f) to approve major alternatives (as defined in § 63.90) to recordkeeping, notification, and reporting requirements in §§ 63.2998 through 63.3000.

~~³⁹ The following are not delegable: (1) Approval of alternatives to the work practice standards in § 63.3094 under § 63.6(g). (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

~~⁴⁰ The following are not delegable: (1) § 63.3360(c), approval of alternate test method for organic HAP content determination; (2) § 63.3360(d), approval of alternate test method for volatile matter determination.~~

~~⁴¹ The following are not delegable: (1) Approval of alternatives to the work practice standards in § 63.3493. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

~~⁴² The following are not delegable: (1) Approval of alternatives to the requirements in § 63.3881 through 3883 and § 63.3890 through 3893. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(92) Subpart OOOO	Subpart OOOO ⁴⁴	§63.4370(c)§
335-3-11-.06(93) Subpart PPPP	Subpart PPPP ⁴⁵	§63.4580(c)§
335-3-11-.06(94) Subpart QQQQ	Subpart QQQQ ⁴⁶	See Footnote
335-3-11-.06(95) Subpart RRRR	Subpart RRRR ⁴⁷	§63.4980(c)§
335-3-11-.06(96) Subpart SSSS	Subpart SSSS ⁴⁸	§63.5200(c)§ ee Footnote

~~⁴³The following are not delegable: (1) Approval of alternatives to the work practice standards in § 63.4093 under § 63.6(g). (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

~~⁴⁴The following are not delegable: (1) Approval of alternatives to the work practice standards in § 63.4293 under § 63.6(g). (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

~~⁴⁵The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.4481 through 4483 and §§ 63.4490 through 4493. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

⁴⁶ The following are not delegable: (1) Approval of alternatives to the work practice standards under § 63.4693. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major changes to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

~~⁴⁷The following are not delegable: (1) Approval of alternatives to the work practice standards in § 63.4893 under § 63.6(g). (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), and as defined in § 63.90. (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

~~⁴⁸The following are not delegable: (1) Approval of alternatives to the emission limitation in §63.5120. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in §63.5160. (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.5150.~~

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(97) Reserved	Reserved	
335-3-11-.06(98) Reserved	Reserved	
335-3-11-.06(99) Subpart VVVV	Subpart VVVV ⁴⁹	§63.5776(b)6 §63.5728 §63.5731(a) §63.5734 §63.5740(a) §63.5743 §63.5746(g)
335-3-11-.06(100) Subpart WWWW	Subpart WWWW ⁵⁰	§63.5930(c)§
335-3-11-.06(101) Subpart XXXX	Subpart XXXX ⁵¹	§63.6014(c)§
335-3-11-.06(102) Subpart YYYY	Subpart YYYY ⁵²	§63.6170(c)e

~~(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in §§ 63.5180 and 63.5190.~~

~~⁴⁹The following are also not delegable: Pursuant to § 63.7(e)(2)(ii) and (f), the authority to approve alternatives to the test methods in §§ 63.5719(b), 63.5719(e), 63.5725(d)(1), and 63.5758; pursuant to § 63.8(f), the authority to approve major alternatives to the monitoring requirements in § 63.5725; pursuant to § 63.10(f), the authority to approve major alternatives to the reporting and recordkeeping requirements listed in §§ 63.5764, 63.5767, and 63.5770.~~

~~⁵⁰The following are not delegable: (1) Approval of alternatives to the organic HAP emissions standards in § 63.5805 under § 63.6(g). (2) Approval of major changes to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major changes to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major changes to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

~~⁵¹The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.5981 through 63.5984, 63.5986, and 63.5988. (2) Approval of major changes to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major changes to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major changes to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

~~⁵²The following are not delegable: (1) Approval of alternatives to the emission limitations or operating limitations in § 63.6100 under § 63.6(g). (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major alternatives to monitoring under § 63.8(f) and as~~

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(103) Subpart ZZZZ	Subpart ZZZZ	§63.6670(c)(1)-(5)
335-3-11-.06(104) Subpart AAAAA	Subpart AAAAA ⁵³	<u>§63.7141(c)See</u>
335-3-11-.06(105) Subpart BBBB	Subpart BBBB ⁵⁴	See Footnote
335-3-11-.06(106) Subpart CCCCC	Subpart CCCCC ⁵⁵	See Footnote
335-3-11-.06(107) Subpart DDDDD	Subpart DDDDD	§63.7570(b)

~~defined in § 63.90. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90. (5) Approval of a performance test which was conducted prior to the effective date of the rule to determine outlet formaldehyde concentration as specified in § 63.6110(b).~~

~~⁵³The following are not delegable: (1) Approval of alternatives to the non opacity emission limitations in § 63.7090(a). (2) Approval of alternative opacity emission limitations in § 63.7090(a). (3) Approval of alternatives to the operating limits in § 63.7090(b). (4) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (5) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (6) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

⁵⁴ The following are not delegable: (1) Approval of alternatives to the non-opacity emission limitations in § 63.7184 under § 63.6(g). (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and defined in § 63.90.

⁵⁵ The following are not delegable: (1) Approval of alternatives to work practice standards for fugitive pushing emissions in § 63.7291(a) for a by-product coke oven battery with vertical flues, fugitive pushing emissions in § 63.7292(a) for a by-product coke oven battery with horizontal flues, fugitive pushing emissions in § 63.7293 for a non-recovery coke oven battery, soaking for a by-product coke oven battery in § 63.7294(a), and quenching for a coke oven battery in § 63.7295(b) under § 63.6(g). (2) Approval of alternatives opacity emission limitations for a by-product coke oven battery under § 63.6(h)(9). (3) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90, except for alternative procedures in § 63.7334(a)(7). (4) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (5) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90. (6) Approval of the work practice plan for by-product coke oven batteries with horizontal flues submitted under § 63.7292(a)(1).

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(108) Subpart EEEEE	Subpart EEEEE ⁵⁶	§63.7761(c)§
335-3-11-.06(109) Subpart FFFFF	Subpart FFFFF ⁵⁷	§63.7851(c)§
335-3-11-.06(110) Subpart GGGGG	Subpart GGGGG ⁵⁸	§63.7956(c)§
335-3-11-.06(111) Subpart HHHHH	Subpart HHHHH ⁵⁹	§63.8100(b)§
335-3-11-.06(112) Subpart IIII	Subpart IIII ⁶⁰	See Footnote

~~⁵⁶The following are not delegable: (1) Approval of alternatives to non-opacity emissions limitations in § 63.7690 and work practice standards in § 63.7700 under § 63.6(g). (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

~~⁵⁷The following are not delegable: (1) Approval of alternative opacity emission limits in Table 1 to this subpart under § 63.6(h)(9). (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90, except for approval of an alternative method for the oil content of the sinter plant feedstock or volatile organic compound measurements for the sinter plant windbox exhaust stream stack as provided in § 63.7824(f). (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

~~⁵⁸The following are not delegable: (1) Approval of alternatives to the non-opacity emissions limitations and work practice standards in this subpart under § 63.6(g). (2) Approval of major changes to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major changes to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major changes to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

~~⁵⁹The following are not delegable: (1) Approval of alternatives to the non-opacity emission limits and work practice standards in § 63.8000(a) under § 63.6(g). (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

⁶⁰ The following are not delegable: (1) Approval of alternatives under § 63.6(g) to the non-opacity emission limitations in § 63.8190 and work practice standards in § 63.8192. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(113) Subpart JJJJJ	Subpart JJJJJ	§63.8510(c)
335-3-11-.06(114) Subpart KKKKK	Subpart KKKKK	§63.8660(c)
335-3-11-.06(115) Subpart LLLLL	Subpart LLLLL ⁶⁴	<u>§63.8697(b)</u> §
335-3-11-.06(116) Reserved	Reserved	
335-3-11-.06(117) Subpart NNNNN	Subpart NNNNN ⁶²	<u>§63.9070(c)</u> §
335-3-11-.06(118) Reserved	Reserved	
335-3-11-.06(119) Subpart PTTTT	Subpart PTTTT ⁶³	<u>§63.9370(c)</u> §
335-3-11-.06(120) Subpart QQQQQ	Subpart QQQQQ ⁶⁴	See Footnote
335-3-11-.06(121) Subpart RRRRR	Subpart RRRRR ⁶⁵	<u>§63.9651(c)</u> §

~~⁶¹The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.8681, 63.8682, 63.8683, 63.8684(a) through (c), 63.8686, 63.8687, 63.8688, 63.8689, 63.8690, and 63.8691. (2) Approval of major changes to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major changes to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major changes to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

~~⁶²The following are not delegable: (1) Approval of alternatives to requirements in §§ 63.8980, 63.8985, 63.8990, 63.8995, and 63.9000. (2) Approval of major changes to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major changes to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major changes to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

~~⁶³The following are not delegable: (1) Approval of alternatives to the emission limitations in § 63.9300 under § 63.6(g). (2) Approval of major changes to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major changes to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major changes to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

⁶⁴ The following are not delegable: (1) Approval of alternatives to the emission limitations in § 63.9500(a) and (b) under § 63.6(g). (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

~~⁶⁵The following are not delegable: (1) Approval of non opacity emission limitations and work practice standards under § 63.6(h)(9) and as defined in~~

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(122) Reserved	Reserved	
335-3-11-.06(123) Subpart TTTTT	Subpart TTTTT ⁶⁶	See Footnote
335-3-11-.06(124) Subpart UUUUU	Subpart UUUUU	§63.10041(b) (1) (4)
335-3-11-.06(125) Reserved	Reserved	
335-3-11-.06(126) Reserved	Reserved	
335-3-11-.06(127) Reserved	Reserved	
335-3-11-.06(128) Subpart YYYYY	Subpart YYYYY	§63.10691(c)(1)-(6)
335-3-11-.06(129) Subpart ZZZZZ	Subpart ZZZZZ	§63.10905(c) (1) (6)
335-3-11-.06(130) Reserved	Reserved	
335-3-11-.06(131) Reserved	Reserved	
335-3-11-.06(132) Reserved	Reserved	
335-3-11-.06(133) Subpart DDDDDD	Subpart DDDDDD	§63.11145(b)
335-3-11-.06(134) Subpart EEEEE	Subpart EEEEE ⁶⁷	See Footnote

~~§ 63.90. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(iii) and (f) and as defined in § 63.90. (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.~~

⁶⁶ The following are not delegable: (1) Approval of alternatives to the non-opacity emission limitations in § 63.9890 and work practice standards in § 63.9891 under § 63.6(g). (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90. (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

⁶⁷ The following are not delegable: (1) Approval of an alternative non-opacity emissions standard under § 63.6(g). (2) Approval of an alternative opacity emissions standard under § 63.6(h)(9). (3) Approval of a major change to a test method under § 63.7(e)(2)(ii) and (f). A "major change to test method" is defined in § 63.90. (4) Approval of a major change to monitoring under § 63.8(f). A "major change to monitoring" is defined in § 63.90. (5) Approval of a major change to recordkeeping/reporting under § 63.10(f). A "major change to recordkeeping/reporting" is defined in § 63.90.

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(135) Subpart FFFFFFFF	Subpart FFFFFFFF ⁶⁸	See Footnote
335-3-11-.06(136) Subpart GGGGGG	Subpart GGGGGG ⁶⁹	See Footnote
335-3-11-.06(137) Reserved	Reserved	
335-3-11-.06(138) Reserved	Reserved	
335-3-11-.06(139) Reserved	Reserved	
335-3-11-.06(140) Reserved	Reserved	
335-3-11-.06(141) Subpart LLLLLL	Subpart LLLLLL	§63.11399(b)(1)-(4)
335-3-11-.06(142) Subpart MMMMMM	Subpart MMMMMM	§63.11406(b)(1)-(4)
335-3-11-.06(143) Reserved	Reserved	
335-3-11-.06(144) Subpart OOOOOO	Subpart OOOOOO	§63.11420(b)(1)-(4)
335-3-11-.06(145) Reserved	Reserved	
335-3-11-.06(146) Subpart QQQQQQ	Subpart QQQQQQ ⁷⁰	See Footnote

⁶⁸ The following are not delegable: (1) Approval of an alternative non-opacity emissions standard under §63.6(g). (2) Approval of a major change to test methods under § 63.7(e)(2)(ii) and (f). A "major change to test method" is defined in § 63.90. (3) Approval of a major change to monitoring under § 63.8(f). A "major change to monitoring" is defined in § 63.90. (4) Approval of a major change to recordkeeping/reporting under § 63.10(f). A "major change to recordkeeping/reporting" is defined in § 63.90.

⁶⁹ For primary zinc production facilities, the following are not delegable: (1) Approval of an alternative non-opacity emissions standard under § 63.6(g). (2) Approval of an alternative opacity emissions standard under § 63.6(h)(9). (3) Approval of a major change to test methods under § 63.7(e)(2)(ii) and (f). A "major change to test method" is defined in § 63.90. (4) Approval of a major change to monitoring under § 63.8(f). A "major change to monitoring" is defined in § 63.90. (5) Approval of a major change to recordkeeping/reporting under § 63.10(f). A "major change to recordkeeping/reporting" is defined in § 63.90. For primary beryllium manufacturing facilities, the following are not delegable: (1) Approval of an alternative non-opacity emissions standard under 40 CFR 61.12(d). (2) Approval of a major change to test methods under 40 CFR 61.13(h). A "major change to test method" is defined in §63.90. (3) Approval of a major change to monitoring under 40 CFR 61.14(g). A "major change to monitoring" is defined in § 63.90. (4) Approval of a major change to recordkeeping/reporting under 40 CFR 61.10. A "major change to recordkeeping/reporting" is defined in § 63.90.

⁷⁰ The following are not delegable: (1) Approval of an alternative nonopacity emissions standard under § 63.6(g). (2) Approval of a major change to test methods under § 63.7(e)(2)(ii) and (f). A "major change to test method" is defined

ADEM Chapter 335-3-11	40 CFR Part 63	Exceptions
335-3-11-.06(147) Reserved	Reserved	
335-3-11-.06(148) Reserved	Reserved	
335-3-11-.06(149) Subpart TTTTTT	Subpart TTTTTT	§63.11473(c)(1)-(4)
335-3-11-.06(150) Reserved	Reserved	
335-3-11-.06(151) Subpart VVVVVV	Subpart VVVVVV	§63.11503(b)(1)-(4)
335-3-11-.06(152) Reserved	Reserved	
335-3-11-.06(153) Reserved	Reserved	
335-3-11-.06(154) Subpart YYYYYY	Subpart YYYYYY	§63.11531(c)(1)-(5)
335-3-11-.06(155) Subpart ZZZZZZ	Subpart ZZZZZZ	§63.11557(c)(1)-(5)
335-3-11-.06(156) Subpart AAAAAA	Subpart AAAAAA	§63.11567(b)
335-3-11-.06(157) Reserved	Reserved	
335-3-11-.06(158) Subpart CCCCCC	Subpart CCCCCC ⁷¹	See Footnote
335-3-11-.06(159) Subpart DDDDDD	Subpart DDDDDD ⁷²	See Footnote
335-3-11-.06(160) Reserved	Reserved	
335-3-11-.06(161) Reserved	Reserved	
335-3-11-.06(162) Reserved	Reserved	
335-3-11-.06(163) Subpart HHHHHH	Subpart HHHHHH	§63.12000(b)

in § 63.90 (3) Approval of a major change to monitoring under § 63.8(f). A “major change to monitoring” is defined in § 63.90. (4) Approval of a major change to recordkeeping/reporting under § 63.10(f). A “major change to recordkeeping/reporting” is defined in § 63.90.

⁷¹ The following are not delegable: (1) Approval of an alternative nonopacity emissions standard under § 63.6(g). (2) Approval of a major change to test methods under § 63.7(e)(2)(ii) and (f). A “major change to test method” is defined in § 63.90 (3) Approval of a major change to monitoring under § 63.8(f). A “major change to monitoring” is defined in § 63.90. (4) Approval of a major change to recordkeeping/reporting under § 63.10(f). A “major change to recordkeeping/reporting” is defined in § 63.90.

⁷² The following are not delegable: (1) Approval of an alternative nonopacity emissions standard under § 63.6(g). (2) Approval of an alternative opacity emissions standard under § 63.6(h)(9). (3) Approval of a major change to test methods under § 63.7(e)(2)(ii) and (f). A “major change to test method” is defined in § 63.90. (4) Approval of a major change to monitoring under § 63.8(f). A “major change to monitoring” is defined in § 63.90. (5) Approval of a major change to recordkeeping and reporting under § 63.10(f). A “major change to recordkeeping/reporting” is defined in § 63.90.

ADEM Chapter 335-3-11

40 CFR Part 63

Exceptions

History: Effective Date: November 23, 1995.

Amended: November 21, 1996; September 25, 1997; March 27, 1998; November 19, 1998; July 15, 1999; January 13, 2000; September 7, 2000; March 14, 2002; October 3, 2002; April 3, 2003; October 2, 2003; March 22, 2005; December 12, 2005; July 11, 2006; April 3, 2007; January 22, 2008; August 5, 2008; January 19, 2009; March 30, 2010; May 23, 2011; May 29, 2012; January 22, 2013; May 28, 2013; September 24, 2013; November 24, 2015; June 9, 2017; Amended: **Proposed: July 20, 2021.**

Attachment 6

**ENVIRONMENTAL MANAGEMENT COMMISSION
RESOLUTION**

WHEREAS, the Alabama Department of Environmental Management gave notice of a public hearing on the proposed revisions to ADEM Admin. Code 335-13 of the Department's Land Division – Solid Waste Program Rules in accordance with Ala. Code § 22-22A-8 (2006 Rplc. Vol.) and Ala. Code § 41-22-4 (2000 Rplc. Vol.); and

WHEREAS, a public hearing was held before a representative of the Alabama Department of Environmental Management designated by the Environmental Management Commission for the purpose of receiving data, views and arguments on the amendment of such proposed rules; and

WHEREAS, the Alabama Department of Environmental Management has reviewed the oral and written submissions introduced into the hearing record, and has prepared a concise statement of the principal reasons for and against the adoption of the proposed rules incorporating therein its reasons for the adoption of certain revisions to the proposed rules in response to oral and written submissions, such revisions, where appropriate, having been incorporated into the proposed rules attached hereto; and

WHEREAS, the Environmental Management Commission has considered fully all oral and written submissions respecting the proposed amendments and the Reconciliation Statement prepared by the Alabama Department of Environmental Management.

NOW THEREFORE, pursuant to Ala. Code. §§ 22-27-2, 22-27-7, 22-27-9, 22-27-12 (2006 Rplc. Vol.), and Ala. Code. § 41-22-5 (2000 Rplc. Vol.), as duly appointed members of the Environmental Management Commission, we do hereby adopt and promulgate these revisions to division 335-13 [rules 335-13-1-.03/Definitions (Amend); 335-13-1-.07/Appeals (Amend); 335-13-1-.09/Repealer (Repeal); 335-13-1-.11/General (Amend); 335-13-4-.11/General Design Standards for Disposal Facilities (Amend); 335-13-4-.15/Cover (Amend); 335-13-4-.16/Explosive Gases (Amend); 335-13-4-.20/Closure and Post-Closure (Amend); 335-13-4-.21/General

**ENVIRONMENTAL MANAGEMENT COMMISSION
RESOLUTION**

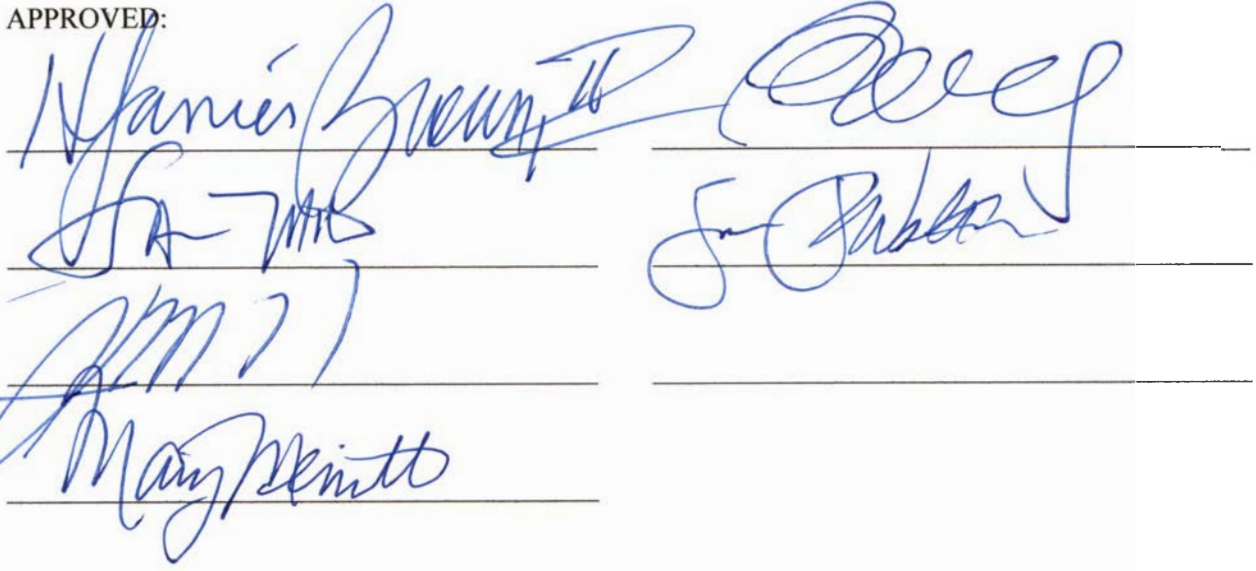
Operational Standards for Landfill Units (Amend); 335-13-4-.22/Specific Requirements for Municipal Solid Waste Landfills (Amend); 335-13-4-.23/Specific Requirements for Inert-Construction/Demolition Landfills and Industrial Landfills (Amend); 335-13-4-.26/Requirements for Management and Disposal of Special Waste (Amend); 335-13-4-.27/Groundwater Monitoring and Corrective Action (Amend); 335-13-5-.01/Disposal Permits (Amend); 335-13-5-.02/Permit Application (Amend); 335-13-5-.03/Public Notice (Amend); 335-13-5-.04/Public Hearing (Amend); 335-13-5-.05/Permit Denial, Suspension or Revocation (Amend); 335-13-5-.06/Permit Modification (Amend); 335-13-5-.07/Transfer of Permit (Amend); 335-13-8-.01/Variances (Amend); 335-13-8-.02/Petition for Variance (Amend); 335-13-8-.03/Extension of Prior or Existing Variance (Amend); 335-13-8-.04/Department Action on Petitions for Variances (Repeal); 335-13-8-.12/Public Notice (New); 335-13-8-.13/Public Hearing (New); 335-13-14-.01/Purpose (Amend); 335-13-14-.03/Applicability (Amend); 335-13-14-.04/Application Requirements (Repeal); 335-13-14-.07/Permitting Requirements (Repeal); 335-13-14-.10/Public Notice (Repeal); 335-13-14-.11/Public Hearing (Repeal); 335-13-15-.01/General Provisions (Amend); 335-13-15-.02/Definitions (Amend); 335-13-15-.04/Design Criteria (Amend); 335-13-15-.05/Operating Criteria (Amend); 335-13-15-.06/Groundwater Monitoring and Corrective Action (Amend); 335-13-15-.07/Closure and Post-Closure Care (Amend); 335-13-15-.08/Recordkeeping, Notification, and Posting of Information to the Internet (Amend); 335-13-15-.09/Permit Application (Repeal); 335-13-15-.10/Public Notice (Repeal); 335-13-15-.11/Public Hearing (Repeal); 335-13-15-.12/Permit Denial, Suspension, or Revocation (Repeal); 335-13-15-.13/Permit Modification (Repeal); 335-13-15-.14/Transfer of Permit (Repeal); 335-13-15-.15/Variances (Amend)] of the Department's Land Division – Solid Waste Program rules, administrative code attached hereto, to become effective forty-five days, unless otherwise indicated, after filing with the Alabama Legislative Services Agency.

**ENVIRONMENTAL MANAGEMENT COMMISSION
RESOLUTION**

ADEM Admin. Code division 335-13 – Solid Waste Program

IN WITNESS WHEREOF, we have affixed our signatures below on this 8th day of October 2021.

APPROVED:


The 'APPROVED' section contains three handwritten signatures in blue ink. The first signature is 'James Brown, II', the second is 'John [unclear]', and the third is 'Mary [unclear]'. Each signature is written over a horizontal line.

DISAPPROVED:

ABSTAINED:

This is to certify that this Resolution is a true and accurate account of the actions taken by the Environmental Management Commission on this 8th day of October 2021.


Chair

Environmental Management Commission
Certified this 8th day of October 2021

335-13-1-.03 Definitions. For the purpose of these rules and regulations, the following words and phrases shall have the meanings ascribed to them in this rule and as ascribed by law unless the context of the regulations indicate differently.

(1) Act - the "Solid Wastes and Recyclable Materials Management Act", Act No. 151, Regular Session 2008 as amended (formerly the "Solid Waste Disposal Act, Act No. 771 Regular Session, 1969, as amended by Act No. 2247 Regular Session, 1971) Code of Alabama 1975, § 22-27-1 et. seq.

(2) Active Life - the period of operation beginning with the initial receipt of solid waste and ending at completion of closure activities in accordance with the applicable requirements of rule 335-13-4-.20.

(3) Active Portion (or Active Footprint) - that part of a facility or unit that has received, is receiving, or is authorized and maintained as capable to receive wastes, and that has not been closed in accordance with the applicable requirements of rule 335-13-4-.20.

(4) Adjacent Property Owner - an owner whose property is adjacent to a proposed site.

(5) Agency - any controlling agency, public or private, elected, appointed or volunteer utilizing methods approved by the Health Department or the Department for the purpose of controlling and supervising the collection or management of solid wastes or recyclable materials.

(6) Airport - public-use airport open to the public without prior permission and without restrictions within the physical capacities of available facilities.

(7) Alternative cover – material other than earth used to cover a landfill or sanitary landfill. An alternative cover shall be approved by the Department in compliance with federal law and the USEPA rules for guidance to achieve a level of performance equal to or greater than earthen cover material.

(87) Ambient - normal atmospheric conditions.

(98) Annular Space of a Well - the space between the bore hole and the casing.

(109) Aquifer - a geologic formation, group of formations or part of a formation capable of yielding a significant amount of groundwater to wells, springs or waters of the State.

(110) Areas Susceptible To Mass Movement - those areas of influence (i.e., areas characterized as having an active or substantial possibility of mass movement) where the movement of earth material at, beneath, or adjacent to the landfill unit, because of natural or man-induced events, results in the downslope

transport of soil and rock material by means of gravitational influence. Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, soil fluctuation, block sliding, and rock fall.

(121) Ashes - the solid residue from burning of wood, coal, coke or other combustible material used for heating, the burning or incineration of solid wastes, or for the production of electricity at electric generating plants.

(132) ASTM International - American Society for Testing and Materials International. A not-for-profit standards development company with headquarters located at 100 Barr Harbor Drive (PO Box C700) in West Conshohocken, Pennsylvania, 19428-2959, which develops and publishes technical standards for materials, products, systems, and services..

(143) Beach - for this definition, refer to Division 8 of the ADEM Administrative Code.

(154) Bird Hazard - an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to its occupants.

(165) Bladeable - the physical condition of a sludge or similar waste. Physical conditions include, but are not limited to, the absence of free liquids and of a consistency that can be easily managed by heavy equipment normally utilized at a landfill unit.

(176) Bore Hole - a man-made hole in a geological formation which has been drilled, jetted, driven or made by other similar techniques.

(187) CCR unit - any CCR landfill, CCR surface impoundment, or lateral expansion of a CCR unit, or a combination of more than one of these units, based on the context of the paragraph(s) in which it is used. This term includes both new and existing units, unless otherwise specified.

(198) Cell - a volume of compacted solid waste that is covered by means of compacted earth or some other approved alternative cover usually on a daily or weekly basis in a landfill unit.

(2019) Certification - a statement of professional opinion based upon knowledge and belief.

(210) CFR - Code of Federal Regulations.

(242) Closure - the process by which a landfill unit permanently ceases to accept waste, to include those actions taken by the permittee or owner of the facility to prepare the site for post-closure monitoring and maintenance or to make it suitable for other uses.

(232) Coal Combustion By-products - fly ash, bottom ash, boiler slag, or flue gas emission control by-products which result primarily from the combustion of coal or other fossil fuels at electric generating plants.

(243) Coastal Area - for this definition, refer to Division 8 of the ADEM Administrative Code.

(254) Coastal Waters - those waters adjacent to the shoreline, which contain a measurable quantity or percentage of seawater, including but not limited to, sounds, bays, lagoons, bayous, ponds and estuaries.

(265) Commercial Solid Waste - all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes.

(276) Composite Liner - a system consisting of two components; the upper component must consist of a minimum 40 mil flexible membrane liner (FML), and the lower component must consist of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec. FML components consisting of High Density Polyethylene (HDPE) shall be at least 60 mil thick. The FML component must be installed in direct and uniform contact with the compacted soil component.

(287) Composting or Compost Plant - an officially controlled method or operation whereby putrescible solid wastes are broken down through microbic action to a material offering no hazard or nuisance factors to public health or well-being.

(298) Construction/Demolition-Inert Landfill Unit (C/DLF) - a discrete area of land or an excavation that receives construction/demolition waste, and/or rubbish and/or water treatment (alum) sludge, foundry waste meeting rule 335-13-4-.26(3), and that is not a land application unit, surface impoundment, or injection well as those terms are defined in this rule.

(3029) Construction/Demolition Waste - waste building materials, packaging, and rubble resulting from construction, remodeling, repair, or demolition operations on houses, commercial buildings, and other structures. Such wastes include, but are not limited to, masonry materials, sheet rock, roofing waste, insulation (not including asbestos), scrap metal, and wood products. Uncontaminated concrete, soil, brick, waste asphalt paving, ash resulting from the combustion of untreated wood, rock, and similar materials are excluded from this definition.

(310) Contingency Plan - a document setting out an organized, planned and coordinated course of action to be followed in case of a fire, explosion or release of solid waste which could threaten human health or the environment.

(321) Cover - soil or ~~other suitable natural or manufactured material specifically marketed as such, or a combination of both, acceptable to~~ alternative material approved by the Department that is used to cover compacted solid waste in a landfill unit.

(332) Decontamination - a process of reducing or eliminating the presence of harmful substances, such as infectious agents, so as to reduce the likelihood of disease transmission from those substances.

(343) Department - the Alabama Department of Environmental Management as established by Code of Alabama 1975, § 22-22A-4.

(354) Destruction or Adverse Modification - a direct or indirect alteration of critical habitat which appreciably diminishes the likelihood of the survival and recovery of threatened or endangered species using that habitat.

(356) Director - the Director of the Alabama Department of Environmental Management, appointed pursuant to Code of Alabama 1975, § 22-22A-4, or his or her designee.

(376) Discarded Material - material thrown away, abandoned, disposed of, or otherwise given up without intent to reuse, recycle or reclaim.

(387) Discharge - the accidental or intentional spilling, leaking, pumping, emitting, emptying, or dumping of solid waste, including leachate, into or on any land or water.

(398) Disease Vector - an organism that is capable of transmitting a disease from one host to another.

(4039) Displacement - the relative movement of any two sides of a fault measured in any direction.

(401) Disposal - the discharge, deposit, injection, dumping, spilling, leaking or placing of any solid waste into or on any land or water so that the waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including, but not limited to, groundwaters.

(412) Disposal Area - that portion of the facility that is designated for disposal, as defined in 335-13-1-.03.

(423) Drill Cuttings - solid materials generated by subsurface drilling operations.

(434) Dune - see definition of primary dune system.

(445) Endangered or Threatened Species - any species listed as such pursuant to Section 4 of the Endangered Species Act of 1973, as amended.

(456) Electric Generating Plants - an industrial site, or that portion of an industrial site, that produces electricity, to be used either on-site or off-site.

(467) Engineer - a person currently registered as a professional engineer with the State of Alabama Board of Registration for Professional Engineers and Land Surveyors.

(478) Explosive Gas - a gas that is explosive under ordinary conditions as used herein generally refers to methane (CH₄).

(498) Facility - all contiguous land, structures and other appurtenances used for the processing, treatment, storage or disposal of solid waste, or the recovery of recyclable materials from solid waste, whether or not authorized or permitted, including, but not limited to, waste disposal areas and waste disposed therein.

(5049) Facility Structures - any buildings and sheds or utility or drainage lines on the facility.

(501) Fault - a fracture or a zone of fractures in any material along which strata on one side have been displaced with respect to that on the other side.

(512) Financial Assurance - a financial arrangement by the owner or operator of a municipal solid waste landfill which guarantees the availability of funds which may be used to close, provide post-closure care, or conduct corrective action at that facility if the owner or operator fails to properly execute his or her responsibilities under this article and any rules promulgated by the Department for closure, post-closure care, or corrective action and the terms of any permit issued for operation of that facility.

(523) Floodplain - the lowland and relatively flat areas adjoining inland and coastal waters, including flood prone areas of offshore islands, which are inundated by the 100-year flood.

(534) Foundry Waste - waste, including but not limited to, slag, sand, baghouse dust, etc. generated from foundry smelting and metal casting processes.

(545) Free Liquids - liquids which readily separate from the solid portion of a waste under ambient temperature and pressure as determined by the Paint Filter Test referenced in USEPA Publication SW-846, Method 9095B.

(556) Garbage - putrescible animal and vegetable waste resulting from the handling, preparation, cooking and consumption of food, including, but not limited to, waste from markets, storage facilities, handling and sale of produce and other food products and excepting such materials that may be serviced by garbage grinders and handled as household sewage.

(567) Gas Condensate - the liquid generated as a result of the gas collection and recovery process at the landfill unit.

(578) Generation - the act or process of producing solid waste. Solid waste shall be considered to be generated at the point that waste materials are first discarded or collected, regardless of any subsequent materials recovery or recycling.

(589) Generator - any person who utilizes any process or conducts any activity which results in the production of solid waste.

(5960) Groundwater - water below the land surface in the zone of saturation.

(601) Hazardous constituents - those substances listed in 335-14-2 Appendix VIII and/or 335-14-5 Appendix IX and include hazardous constituents released from solid waste, hazardous waste, or hazardous waste constituents that are reaction by-products.

(612) Hazardous Waste - those wastes defined in, and regulated under, Division 14 of the ADEM Administrative Code, the Alabama Hazardous Wastes Management and Minimization Act of 1978, as amended.

(623) Health Department - an approved county or district health department, including the Alabama State Department of Public Health and the affected state and county health department.

(643) Health Officer - the State or affected county health officer or his or her designee.

(654) Holocene - the most recent epoch of the Quaternary period, extending from the end of the Pleistocene Epoch, at 11,700 years before present, to the present.

(665) Household Waste - any solid waste, including, but not limited to, garbage, trash, and sanitary waste in septic tanks derived from households, including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas. Sanitary waste in septic tanks shall be considered as household waste only when it is disposed in a landfill or unauthorized dump and its inclusion as a household waste shall in no way prohibit or supersede the authority of the Department or the Health Department to regulate onsite sewage systems or the management of sanitary waste in septic tanks.

(676) Incinerator or Combustion Unit - a device designed to burn that portion of garbage and rubbish which will be consumed at temperatures generally ranging 1600 degrees Fahrenheit or over. The unburned residue from an incinerator, including metal, glass, and the like shall be called ashes.

(687) Industrial Landfill (ILF) Unit - a discrete area of land or an excavation that receives industrial solid waste and may in addition receive construction/demolition waste and/or rubbish and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined in this rule.

(698) Industrial Solid Waste - solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Chapters 22

to 30, inclusive, of Title 22, Code of Alabama 1975, and the regulations promulgated thereunder.

~~(7069)~~ Infectious Agent - any organism (such as a virus or a bacterium) that is capable of causing disease or adverse health impacts in humans by invasion and multiplication in body tissues, fluids or secretions.

~~(710)~~ Injection Well - a bored, drilled, or driven shaft or dug hole which is used for the injection of pollutants.

~~(721)~~ Innocent Landowner - an owner of real property upon which there is located an unauthorized dump and who meets all of the following conditions:

(a) The solid waste was disposed of on the property after the owner acquired title to the property or the waste was disposed of before the owner acquired title to the property and the owner lacked actual knowledge of the waste after conducting reasonable due diligence or title was acquired by bequest or devise.

(b) The owner did not have knowledge that the waste was being disposed of on the property or the owner took steps, including, but not limited to, posting signs to prevent disposal on the property.

(c) The owner did not participate in or consent to the disposal of solid waste on the property.

(d) The owner did not receive any financial benefit from the disposal of solid waste on the property.

(e) Title to the property was not transferred to the owner for the purpose of evading liability for operating an unauthorized dump.

(f) The person or persons responsible for disposing of the solid waste on the property, in doing so, was not acting as an agent for the owner.

~~(732)~~ Karst Terrains - areas where karst topography, with its characteristic surface and subterranean features, is developed as the result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terrains include, but are not limited to, sinkholes, sinking streams, caves, large springs, and blind valleys.

~~(743)~~ Land Application Unit - an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for agricultural purposes or for treatment and disposal.

~~(754)~~ Landfill (LF) - a method of compaction and earth or alternative cover of solid wastes other than those containing garbage or other putrescible wastes, including, but not limited to, tree limbs and stumps, demolition materials, incinerator residues, and like materials not constituting a health or nuisance hazard, where cover need not be applied on a per day used basis.

(765) Landfill (LF) Unit - this term shall include MSWLF, C/DLF, ILF units.

(776) Land Surveyor - a person currently registered as a land surveyor with the State of Alabama Board of Registration for Professional Engineers and Land Surveyors.

(787) Lateral Expansion - a horizontal expansion of the waste boundaries of an existing landfill unit.

(798) Leachate - any liquid, including any soluble, suspended or miscible components in the liquid, that has percolated through or emerged from solid waste other than construction/demolition waste and or rubbish.

(8079) Leachate Recirculation - the recycling or reintroduction of leachate into or on a landfill unit constructed with liners and leachate collection systems.

(801) Lift - the compacted vertical thickness of a horizontal series of cells which have been accumulated and covered with earth or some other approved alternative cover. The cover may be either daily, weekly, intermediate, or final as required.

(812) Liquid Waste - any waste material that is determined to contain "free liquids" as defined by Method 9095B (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Pub. No. SW-846), and is not considered bladeable.

(823) Lithified Earth Material - all rock, including all naturally occurring and naturally formed aggregates or masses of minerals or small particles of older rock that formed by crystallization of magma or by induration of loose sediments. This term does not include man-made materials, such as fill, concrete, and asphalt, or unconsolidated earth materials, soil, or regolith lying at or near the earth surface.

(834) Lower Explosive Limit (LEL) - the lowest percent by volume of a mixture of explosive gases which will propagate a flame in air at 25°C and atmospheric pressure. For methane (CH₄) the LEL is considered to be 5 percent.

(845) Materials Recovery Facility - a solid waste management facility that provides for the extraction from solid waste of recyclable materials, materials suitable for use as a fuel or soil amendment, or any combination of those materials. A materials recovery facility shall be deemed to be a solid waste treatment facility.

(856) Maximum Contaminant Level (MCL) – the maximum permissible level of a contaminant allowed in the saturated zone unless occurring naturally or found to already exist during background sampling.

(867) Maximum Horizontal Acceleration in Lithified Earth Material - the maximum expected horizontal acceleration depicted on a seismic hazard map,

with a 90 percent or greater probability that the acceleration will not be exceeded in 250 years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment.

(878) Medical Waste - any infectious solid or liquid waste from a medical waste generator, as defined in chapter 335-17-1.

(889) Municipal Solid Waste Landfill (MSWLF) Unit - a discrete area of land or an excavation that receives household waste and that is not a land application unit, surface impoundment, injection well, or waste pile. A municipal solid waste landfill may also receive other types of solid wastes, such as commercial solid waste, nonhazardous sludge, very small quantity generator waste, industrial solid waste, construction/demolition waste, and rubbish. A municipal solid waste landfill is a sanitary landfill. Such a landfill may be publicly or privately owned. A MSWLF unit may be a new MSWLF unit, an existing MSWLF unit or a lateral expansion.

(9089) Off-site - not a part of what is defined as on-site.

(910) On-site - the same or geographically contiguous property which may be divided by public or private right-of-way. Non-contiguous properties owned by the same person or entity connected by a right-of-way which he controls and to which the public does not have access, is also considered on-site property.

(912) One Hundred Year Flood - a flood that has a one percent or greater chance of recurring in any given year or a flood of a magnitude equaled or exceeded once in 100 years on the average over a significantly long period.

(923) Open Burning - the combustion of any material without the following characteristics:

(a) Control of combustion air to maintain adequate temperature for efficient combustion.

(b) Containment of the combustion-reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion, and

(c) Control of emission of the gaseous combustion products.

(934) Operating Record - a collection of documents relating to the permitting or operation of any landfill unit as listed in rule 335-13-4-.29.

(945) Operator - the person(s) having direct supervision over and responsibility for the daily operation of a landfill unit or part of a landfill unit.

(956) Owner - the person(s) who owns a facility or part of a facility.

(967) Partial Closure - the closure of a discrete part of a facility in accordance with the applicable closure requirements of rule 335-13-4-.20. For example, partial closure may include the closure of a trench, a unit operation, a

landfill cell or a pit, while other parts of the same facility continue in operation or will be placed in operation in the future.

(978) Permit - written authorization granted to a person by the Department to operate a solid waste management facility for the disposal of solid waste.

(989) Permittee - any person possessing a valid permit issued by the Department to dispose of solid waste. This person is responsible for the overall operation of a solid waste facility.

(99100) Person - any individual, trust, firm, joint stock company, corporation (including a government corporation), partnership, agent, agency, association, State, municipality, commission, political subdivision of a state, any interstate body, or any other private or public legal entity.

(1001) Personnel - all persons who work at or supervise the operations of a solid waste facility, and whose actions or inactions may be responsible for achieving compliance with the requirements of this Division.

(1012) Petroleum Contaminated Waste (PCW) - any material, including but not limited to soil, debris, absorbent pads/booms, oil dry, etc., that has been exposed to petroleum products in such a manner that the petroleum product can be detected by a total petroleum hydrocarbon (TPH) analysis using Standard Method 503 D & E, EPA Methods 9071 or 418.1 (Spectrophotometric, Infrared), and that analysis exceeds 100 ppm TPH.

(1023) Poor Foundation Conditions - those areas where features exist which indicate that a natural or man-induced event may result in inadequate foundation support for the structural components of a landfill unit.

(1034) Post Closure - the activities, including monitoring and maintenance at the site, following completion of closure activities if solid waste will remain at the site after closure.

(1045) Practice - any operating method, technique or procedure for the management of solid waste.

(1065) Primary Dune System - for this definition, refer to Division 8 of the ADEM Administrative Code.

(1076) Private Solid Waste Management Facility - a solid waste management facility that is operated exclusively by and for a private solid waste generator for the purpose of accepting solid waste generated on-site or by the permittee.

(1078) Product - any material which is an intended output or result of a fabrication, manufacturing or production process, and is sold and distributed in the stream of commerce for consumption, use, or further processing into another

desired commodity. A product must be managed as an item of value in a controlled manner and is not to be managed as a discarded material.

(1098) Proposed Site - total acreage as identified by the legal survey included in the application submitted to the Department.

(11009) Public Solid Waste Management Facility - a solid waste management facility that accepts solid waste from the public generally or for a fee, or any solid waste management facility that is not a private solid waste management facility.

(1110) Qualified Groundwater Scientist - a scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields as may be demonstrated by state registration, professional certifications, or completion of accredited university programs that enable that individual to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.

(1121) Recovered Materials - those materials which have known recycling potential; which can be feasibly recycled; which have been diverted or removed from the solid waste stream for recycling, whether or not requiring subsequent separation and processing; and which have a substantial portion that are consistently used in the manufacture of products which may otherwise be produced from raw or virgin materials. Recovered materials shall not include solvents or materials, except sawdust, bark, and paper materials that are destined for incineration, energy recovery, or any use which constitutes disposal. Recovered materials shall only be those materials for which during the calendar year (commencing on January 1), the amount of material recycled or diverted from the solid waste stream for recycling and transferred to a different site for recycling equals at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period.

(1132) Recovered Materials Processing Facility - a facility primarily engaged in the storage, processing, and resale or reuse of recovered materials. A recovered materials processing facility is not a solid waste management facility; however, any solid waste resulting from the operation of a facility shall be subject to all applicable laws and regulations relating to solid waste and shall be deemed to be generated for purposes of reporting pursuant to solid waste reduction goals, at the point of collection of the recovered materials from which the solid waste resulted.

(1134) Recyclable Materials - those materials which are capable of being recycled, whether or not the materials have been diverted or removed from the solid waste stream.

(1154) Recycling - any process by which materials are collected, separated, stored, recovered, or processed and reused or returned to use in the form of raw materials or products, but does not include the use of materials as a fuel, or for any use which constitutes disposal.

(1165) Relevant Point of Compliance - that point within the first saturated zone at which groundwater quality must be in compliance with water quality standards set forth by rule 335-13-4-.27. Groundwater monitoring wells are to be located in order to yield samples that are representative of the quality of groundwater passing the relative point of compliance.

(1176) Representative Sample - a sample of a universe or whole (e.g., waste pile, lagoon, and groundwater) which can be expected to exhibit the average properties of the universe or whole. See EPA publication SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Chapter 9 for a discussion and examples of representative samples.

(1187) Rubbish - nonputrescible solid wastes, excluding ashes, consisting of both combustible and noncombustible wastes. Combustible rubbish includes paper, rags, cartons, wood, furniture, rubber, plastics, and similar materials. Noncombustible rubbish includes glass, crockery, metal cans, metal furniture and like materials which will not burn at ordinary incinerator temperatures, not less than 1600 degree F. Uncontaminated concrete, soil, brick, waste asphalt paving, ash resulting from the combustion of untreated wood, rock, yard trimmings, leaves, stumps, limbs and similar materials are excluded from this definition.

(1198) Run-Off - any rainwater, leachate, or other liquid that drains over land from any part of a facility.

(12049) Run-On - any rainwater, leachate, or other liquid that drains over land onto any part of a facility.

(1201) Salvaging - the controlled removal for reuse of material from a solid waste landfill unit.

(1242) Sanitary Landfill - a controlled area of land upon which solid waste is deposited and is compacted and covered with compacted earth or an alternative cover each day as deposited, with no on-site burning of wastes, and so located, contoured and drained that it will not constitute a source of water pollution as determined by the Department. See definition of "Municipal Solid Waste Landfill Unit."

(1223) Sanitary Sewer - any device or system used in the treatment of municipal sewage or industrial waste of a liquid nature. This includes sewers, pipes or other conveyances only if they convey wastewater to a facility providing treatment.

(1234) Saturated Zone - that part of the earth's crust in which all voids are filled with water.

(1245) Scavenging - the unauthorized removal of solid waste from a landfill unit permitted under these regulations.

(1265) Seismic Impact Zone - an area with a ten percent or greater probability that the maximum horizontal acceleration in lithified earth material, expressed as a percentage of the earth's gravitational pull (g), will exceed 0.10 g in 250 years.

(1276) Service Area - the geographical area serviced by a solid waste facility from which solid waste is generated and collected, including any interim points, (i.e., transfer stations) at which the solid waste is repacked or reloaded onto vehicles or other methods of transport for delivery to that facility. For public solid waste management facilities, the service area is established as part of the local host government approval process, as described in Code of Alabama 1975, §22-27-48 and 48.1.

(1278) Sludge - any nonhazardous, solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant.

(1289) Solid Waste - any garbage, rubbish, construction or demolition debris, ash, or sludge from a waste treatment facility, water supply plant, or air pollution control facility, and any other discarded materials, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, or agricultural operations or community activities, or materials intended for or capable of recycling, but which have not been diverted or removed from the solid waste stream. The term "solid waste" does not include recovered materials, solid or dissolved materials in domestic sewage, solid or dissolved material in irrigation return flows, or industrial discharges which are point sources subject to the National Pollutant Discharge Elimination System permits under the Federal Water Pollution Control Act, as amended, or the Alabama Water Pollution Control Act, as amended, or source, special, nuclear, or by-product materials as defined by the Atomic Energy Act of 1954, as amended. Also excluded from this definition are land applications of crop residues, animal manure, and ash resulting exclusively from the combustion of wood during accepted agricultural operations, waste from silvicultural operations, or refuse as defined and regulated pursuant to the Alabama Surface Mining Act of 1969 (Article 1, Chapter 16, Title 9, Sections 9-16-1 to 9-16-15, Code of Alabama 1975).

(12930) Solid Waste Boundary - the outermost perimeter of the solid waste, projected in the horizontal plane, as it would exist at completion of the disposal activity.

(1310) Solid Waste Disposal Facility - any landfill or part of a facility where final disposition of solid waste occurs and at which waste may remain after closure.

(1324) Solid Waste Management - the systematic control of solid waste including its storage, processing, treatment, recovery of materials from solid waste, or disposal.

(1332) Solid Waste Management Facility - any solid waste volume reduction plant, transfer station, material recovery facility, or other facility, the purpose of which is the storage, treatment, utilization, processing, disposal, or recovery of materials from solid waste, or any combination thereof.

(1343) Special Waste - those wastes requiring specific processing, handling or disposal techniques as determined necessary by the Department which are different from the techniques normally utilized for handling or disposal. Examples of such waste types may include, but are not limited to: mining waste, fly ash, bottom ash, sludges, friable asbestos, industrial waste, liquid waste, large dead animals or large quantities of dead animals and residue, medical waste, foundry waste, petroleum contaminated wastes, municipal solid waste ash, or contaminated soil and water from the cleanup of a spill.

(1345) Spill - the unplanned, accidental or unpermitted discharge, deposit, injection, leaking, pumping, pouring, emitting, dumping, placing or releasing of solid or medical waste, or materials which when spilled become solid or medical waste, into or on the land, the air or the water.

(1365) State - the State of Alabama.

(1376) State Health Department - the Alabama Department of Public Health as defined by § 22-1-1, Code of Alabama 1975.

(1387) State Health Officer - the Health Officer for the State of Alabama as set out in § 22-2-8, Code of Alabama 1975, or his or her designee provided by law.

(1398) Structural Components - liners, leachate collection systems, final covers, run-on/run-off systems, and any other component used in the construction and operation of the landfill unit that is necessary for protection of human health and the environment.

(14039) Surface Impoundment or Impoundment - a facility or part of a facility that is a natural topographic depression, human-made excavation, or diked area formed primarily of earthen materials (although it may be lined with human-made materials), that is designed to hold an accumulation of liquid wastes or wastes containing free liquids and that is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds and lagoons.

(1401) Twenty-Four Hour, Twenty-Five Year Storm (24 hour, 25 year Storm) - the maximum 24 hour precipitation event with a probable reoccurrence interval of once in twenty-five years as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U. S.", May 1961, and subsequent amendments or equivalent regional or rainfall probability information developed therefrom.

(1412) Unauthorized Dump - any collection of solid wastes either dumped or caused to be dumped or placed on any public or private property, whether or

not regularly used, and not having a permit from the Department. Abandoned automobiles, large appliances or similar large items of solid waste shall be considered as forming an unauthorized dump within the meaning of this Division. The careless littering of a relatively few, smaller individual items such as tires, bottles, cans and the like shall not be considered an unauthorized dump, unless the accumulation of the solid waste poses a threat to human health or the environment. An unauthorized dump shall also mean any solid waste disposal site which does not meet the regulatory provisions of this Division.

(1423) Unstable Area - a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the landfill structural components responsible for preventing releases from a landfill. Unstable areas can include poor foundation conditions, areas susceptible to mass movements, and karst terrains.

(1434) Uppermost Aquifer - the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

(1445) Washout - the carrying away of solid waste or ~~earth~~ cover by waters of ~~the base flood~~ a 100-year flood.

(1456) Waste Management Unit Boundary - a vertical surface located at the hydraulically downgradient limit of the unit. This vertical surface extends down into the uppermost aquifer.

(1467) Waste Pile or Pile - any noncontainerized accumulation of solid, non-flowing waste that is used for treatment or storage.

(1478) Waters of the State (Waters) - all waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the State, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership or corporation unless such waters are used in interstate commerce.

(1489) Wetlands - those areas as defined by the U.S. Army Corps of Engineers regulations.

(14950) Wood Ash Waste - solid waste resulting from the burning of untreated wood with minimal amounts (<10% of total fuel based on a mass input basis) of other non-coal permitted solid fuels. Ash resulting exclusively from the combustion of non-processed and untreated wood is excluded from the definition of wood ash waste.

(151) Working Face - the area within a solid waste disposal facility that is actively receiving solid waste for compaction and cover.

Author: Russell A. Kelly; Phillip D. Davis; James L. Bryant, Eric L. Sanderson, S. Scott Story, Heather M. Jones.

Statutory Authority: Code of Alabama 1975, §§ 22-27-2, 22-27-7, 22-27-9, and 22-27-12.

History: Effective: November 18, 1981.

Amended: Effective: July 21, 1988. **Amended:** Effective: October 2, 1990.

Amended: Effective: November 2, 1993. **Amended:** Effective: July 26, 1996.

Amended: Effective: August 3, 2010. **Amended:** Effective: January 16, 2012.

Amended: Effective: April 8, 2016. **Amended:** Filed: April 24, 2018; Effective: June 8, 2018. **Amended:** Filed: June 25, 2019; Effective: August 9, 2019.

Amended: Proposed: July 20, 2021.

335-13-1-07 Appeals. Any person aggrieved by any administrative action of the Department, with respect to these regulations, is entitled to a hearing before the Commission and has the right of appeal in accordance with procedures established in chapter 335-2-1 of the ADEM Administrative Code.

Author: Russell A. Kelly; Phillip D. Davis, Heather M. Jones.

Statutory Authority: Code of Alabama 1975, § 22-27-7, 22-27-12, and 22-22A-7.

History: Effective: July 26, 1996.

Amended: Effective: August 3, 2010. **Amended:** Filed: April 24, 2018; Effective: June 8, 2018. **Amended: Proposed: July 20, 2021.**

335-13-1-.09 [Reserved]Repealer. ~~All rules and regulations promulgated and adopted by the Department which are in conflict with this Division or any provision thereof are hereby expressly repealed. This Division is intended to be comprehensive and include all the regulations of the Department dealing with solid waste management as enforced by the Solid Waste Branch of the Land Division.~~

Author: ~~Russell A. Kelly.~~

Statutory Authority: ~~Code of Alabama 1975, § 22-27-7.~~

History: ~~July 26, 1996.~~ **Amended:** Proposed: July 20, 2021.

335-13-1-.11 General.

(1) All solid waste shall be disposed of in a manner consistent with the requirements of this Division.

(2) Duty to provide information. Any owner or operator subject to the requirements of this Division shall furnish to the Department, within a reasonable time, any relevant information which the Department may request to determine compliance with this Division. The owner or operator shall also furnish to the Department, upon request, copies of records required to be kept by any requirement of this Division.

Author: Russell A. Kelly, Heather M. Jones.

Statutory Authority: Code of Alabama 1975, §§ 22-22A-4, 22-22A-5, 22- 27-7.

History: November 18, 1981.

Amended: July 21, 1988; October 2, 1990; November 2, 1993. **Amended:**

Proposed: July 20, 2021.

335-13-4-.11 General Design Standards for Disposal Facilities.

(1) General Standards. 335-13-4-.12 through 335-13-4-.20 provides standards for establishing a landfill unit providing that the siting standards of 335-13-4-.01 have been fully complied with to the satisfaction of the Department. Certain requirements contained in 335-13-4-.01 through 335-13-4-.20 may be enhanced or reduced by the Department as deemed necessary to comply with the Act and this Division.

(2) Hydrogeology Standards.

(a) For purposes of designing the bottom elevation of the liner system proposed cell, the applicant shall measure the groundwater elevation at the location of the proposed cell or liner system. Such determinations shall be based on groundwater measurements taken in the area of the proposed cell or liner system as approved by the Department. At each measuring location, the applicant shall obtain a minimum of two measurements taken during each of the three consecutive months of February, March and April, or as otherwise approved by the Department, with no two measurements taken within any twelve-day period. Having obtained the measurements, the applicant shall design the facility so that the bottom elevation of the proposed cell or liner system shall be a minimum of five feet above the highest measured groundwater level. The applicant shall submit to the Department all data known to exist concerning groundwater elevations at the landfill site and shall submit to the Department a location map showing all monitoring wells or piezometers and drilling logs for all monitoring wells or piezometers used to obtain any groundwater elevation data that is submitted. Nothing herein shall prevent the Department from requiring additional groundwater measurements or from requiring an additional buffer as it may deem appropriate with respect to a particular site.

(b) When the geological and hydrological data so indicate, the Department may specify greater separation distances, a liner(s), or a leachate collection system, or combination of the above to protect the groundwater.

(c) When the geological and hydrological data so indicate, the Department may allow engineering controls to remove, divert, drain, or otherwise modify zones of saturation above the uppermost aquifer.

Author: Russell A. Kelly, S. Scott Story.

Statutory Authority: Code of Alabama 1975, §§ 22-27-3, 22-27-7.

History: November 18, 1981. **Amended:** Effective: July 21, 1988; **Amended:** Effective: November 2, 1993; **Amended:** Effective: July 26, 1996; **Amended:** Effective: November 28, 1996; **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

335-13-4-15 Cover. Daily, weekly, or some other periodic cover shall be required at all landfill units, as determined by the Department.

(1) The suitability and volume of any soils for daily, intermediate and final cover requirements shall be determined by soil borings and analysis.

(2) Any proposal to use alternative cover systems shall be submitted to and approved by the Department prior to implementation.

(3) Alternative cover shall be approved by the Department in compliance with federal law and the USEPA rules for guidance to achieve a level of performance equal to or greater than earthen cover material.

Author: Russell A. Kelly, Heather M. Jones.

Statutory Authority: Code of Alabama 1975, §§ 22-27-3, 22-27-7.

History: November 18, 1981; **Amended:** Effective: July 21, 1988; **Amended:** Effective: November 2, 1993; **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

335-13-4-.16 Explosive Gases. The generation of explosive gases, especially methane (CH₄), at a landfill unit which accepts organic waste shall be considered in the design and operation of the facility. Special attention shall be given to control and monitoring of explosive gases as follows:

(1) Control.

(a) Explosive gases shall not exceed the lower explosive limit (LEL) at the facility boundary.

(b) Explosive gases shall not exceed 25 percent of the LEL in facility structures except for gas control or recovery system components.

(c) Facility structures shall be designed and constructed so as not to allow explosive gases to collect in, under or around structures in concentrations exceeding the requirements of this rule.

(2) Monitoring.

(a) Gas monitoring equipment as required by the Department shall be provided at the landfill unit by the operating agency.

(b) The Department, upon review of waste type, facility structures, site geology and surrounding land use, may require installation of permanent gas monitoring structures, gas vents, gas control or recovery systems.

(c) An explosive gas monitoring and reporting plan shall be prepared and filed at the facility for all landfill units receiving organic wastes. All sites required to monitor for explosive gases shall submit a plan which indicates permanent monitoring points. The plan shall also include what measures shall be taken by the permittee, landfill supervisor, and any operators present on-site to protect human health and property should explosive gases be detected which exceed the LEL. The plan must be prepared by a registered professional engineer and include seal or signature and registration number in accordance with rule 335-13-5-.02(1)(~~ea~~)15.(i) of the ADEM Administrative Code.

1. The type and frequency of monitoring must be determined based on the following factors:

(i) Soil conditions;

(ii) Hydrogeological conditions surrounding the landfill unit;

(iii) Hydraulic conditions surrounding the landfill unit;

(iv) Location of the facility structures and property boundaries;

(v) Location of structures adjacent to facility.

2. The minimum frequency for monitoring shall be quarterly for MSWLF and yearly for C/DLF and ILF.

(i) All monitoring reports shall be submitted to the Department and placed in the operating record of the facility within 30 days of the monitoring event.

(ii) Levels of gas detected shall be expressed in percent LEL and percent volume.

3. If explosive gas levels exceeds the limits specified in this rule, the permittee shall:

(i) Immediately take all necessary steps to ensure protection of human health and property and notify the Department;

(ii) Within 7 days of detection, place in the operating record of the facility the explosive gas levels detected and the immediate steps taken to protect human health and property;

(iii) Within 20 days of detection, submit to the Department for approval a remedial plan for the explosive gas releases. This plan shall describe the nature and extent of the problem and the proposed remedy. The plan shall be implemented upon approval by the Department, but within 60 days of detection. Also, within 60 days of detection, a copy of the plan shall be placed in the operating record of the facility and the Department notified that the plan has been implemented.

4. Monitoring points shall be located every 300 feet along the landfill permit boundaries. In areas where a dwelling is within 1000 feet of the boundaries, the monitoring points shall be 100 feet apart or as otherwise directed by the Department.

(i) Monitoring shall be conducted in structures, culverts, under bridges, drop inlets, and any other place that is conducive to gas accumulation.

(ii) Permanent gas monitoring structures, or use of the bar hole punch method, are required by the Department.

(iii) A minimum depth of six feet must be obtained for permanent monitoring structures and four feet when using the bar hole punch method.

Author: Russell A. Kelly, Eric L. Sanderson, S. Scott Story.

Statutory Authority: Code of Alabama 1975, §§ 22-27-3, 22-27-7.

History: Effective: November 18, 1981. **Amended:** Effective: July 21, 1988.

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Amended: Filed: April 24, 2018; Effective: June 8, 2018; **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

335-13-4-.20 Closure and Post-Closure.

(1) Submittal. The owner or operator must submit a closure/post-closure plan to the Department and place in the operating record, no later than the effective date of these regulations or by the initial receipt of waste, whichever is later.

(2) Closure. The requirements for closure of existing and proposed landfill units shall include the following unless otherwise noted.

(a) The owner or operator must prepare a written closure plan that describes the steps necessary to close all existing and proposed landfill units at any point during their active life in accordance with the cover design requirements in 335-13-4-.20(2)(b). The owner or operator must submit the closure plan as part of the permit application to the Department. The closure plan, at a minimum, must include the following information:

1. A description of the final cover, designed in accordance with 335-13-4-.20(2)(b) and the methods and procedures to be used to install the cover;

2. An estimate of the largest area of the landfill unit ever requiring a final cover as required under 335-13-4-.20(2)(b) at any time during the active life;

3. An estimate of the maximum inventory of wastes ever on-site over the active life of the facility; and

4. A schedule for completing all activities necessary to satisfy the closure criteria in this rule.

(b) A final cover system must be installed which is designed to minimize infiltration and erosion. The final cover system must be comprised of an erosion layer(s) underlain by an infiltration layer(s) as follows:

1. The infiltration layer for MSWLF and ILF must be comprised of a minimum of 18 inches of earthen material and/or a synthetic layer that has a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present, or a permeability no greater than 1×10^{-5} cm/sec, whichever is less. The infiltration layer for C/DLF must be comprised of a minimum of 18 inches of compacted earthen material excluding sands, and

2. The erosion layer must consist of a minimum 6 inches of earthen material that is capable of sustaining native plant growth, as specified in 335-13-4-.20(2)(d).

3. The Department may approve an alternative final cover design that includes:

(i) An infiltration layer that achieves an equivalent reduction in infiltration as the infiltration layer specified in 335-13-4-.20(2)(b)1., and

(ii) An erosion layer that provides equivalent protection from wind and water erosion as the erosion layer specified in 335-13-4-.20(2)(b)2.

(c) Final soil cover shall be graded so that:

1. Surface water does not pond over the landfill unit.
2. The maximum final grade of the final cover system shall not exceed 25 percent or as specified by the Department to minimize erosion.
3. Slopes longer than 25 feet shall require horizontal terraces, of sufficient width for equipment operation, for every 20 feet rise in elevation or utilize other erosion control measures approved by the Department.
4. The minimum final grade of the final cover system shall not be less than 5 percent or as specified by the Department to minimize ponding.
5. For a permitted facility utilizing the area fill method or the trench method, final grading of the infiltration layer shall be completed within 90 days after the unit has received the last known receipt of waste.

(d) A vegetative or some other appropriate cover must be established to minimize erosion and, when applicable, maximize evapotranspiration. Within 90 days after completion of final grading requirements on each phase or each trench as specified in 335-13-4-.20(2)(a), the permittee or owner of a permitted landfill unit shall prepare the final cover for the establishment of a vegetative cover or alternative cover. Deep rooted vegetation (roots that may grow below the 6 inch erosion layer) shall be prohibited as vegetative cover. Preparation of a vegetative cover shall include, but not be limited to, the following:

1. Placement of appropriate species of grass seed, fertilizer and mulch; and
2. Watering and maintenance necessary such that germination of grass will occur.

(e) Prior to beginning closure of each landfill unit as specified in this rule, an owner or operator must submit to the Department and place in the operating record a notice of the intent to close the unit.

(f) The owner or operator must begin closure activities of each LF unit no later than 30 days after the date of which the LF unit receives the known final receipt of wastes. If the LF unit has remaining capacity and there is reasonable likelihood that the LF unit will receive additional wastes, closure activities of each LF unit must begin no later than one year after the date of known final receipt of wastes. Extensions beyond the one-year deadline for beginning closure may be granted by the Department if the owner or operator demonstrates that the LF unit has the capacity to receive additional wastes and the owner or operator has taken and will continue to take all steps necessary to prevent threats to human health and the environment from the unclosed LF unit.

(g) The owner or operator of all LF units must complete closure activities of each LF unit in accordance with the closure plan within 180 days following the last known receipt of waste. Extensions of the closure period may be granted by the Department if the owner or operator demonstrates that closure will, of necessity, take longer than 180 days and the owner or operator has taken and will continue to take all steps necessary to prevent threats to human health and the environment from the unclosed LF unit. Extensions granted for closure of each LF unit shall not exceed a total of 180 days.

(h) Following closure of each LF unit, the owner or operator must submit to the Department a certification, signed by an independent registered professional engineer verifying that closure has been completed in accordance with the closure plan, and a copy placed in the operating record. C/DLF and/or ILF owner or operator may submit certification signed by a registered professional engineer in lieu of an independent registered professional engineer.

(i) Within 90 days after permit expiration, revocation or when final closure requirements in 335-13-4-.20 are achieved as determined by the Department, the permittee or owner of a facility must provide documentation of compliance with the requirements of the Uniform Environmental Covenants Program in ADEM Admin. Code Division 335-5 and shall record a notation onto the land deed containing the property utilized for disposal, and/or some other legal instrument that is normally examined during a title search, that will in perpetuity, notify any potential purchaser of the property that:

1. The land has been used as a solid waste disposal facility landfill unit;

2. Its use is restricted by the items contained in 335-13-4-.20(3)(c) and 335-13-4-.20(3)(d);

3. The locations and dimensions of the landfill unit with respect to permanently surveyed benchmarks and section corners shall be on a plat prepared and sealed by a land surveyor;

4. Contain a note, prominently displayed, which states the name of the permittee or operating agency, the type of landfill unit and the beginning and closure dates of the disposal activity.

5. Certification by an engineer or land surveyor that all closure requirements have been completed as determined necessary by the Department.

(j) For a permitted facility, the permittee or land owner shall submit a certified copy of the recording instrument to the Department and place a copy in the operating record within 120 days after permit expiration, revocation or as otherwise directed by the Department.

(k) Detail design for the closure of existing and proposed LF units shall be shown on a final contour and drainage plan. Items required in 335-13-4-.20(2)(b) through (d), (i), (j), and (3)(a), (d), and (f) shall be included.

(3) Post-closure. The requirements for post-closure of existing and proposed landfill units shall include the following unless otherwise noted.

(a) Following closure of each LF unit, the owner or operator must conduct post-closure care. Post-closure care must be conducted for a minimum of 30 years; or a minimum of 5 years if closed prior to October 9, 1993, or the effective date of § 258.1 of 40 CFR 258, Solid Waste Disposal Criteria, whichever is later; except as provided under 335-13-4-.20(3)(b), and consist of at least the following:

1. Eroded areas shall be filled with suitable soil cover, compacted, graded and appropriate cover established as described in 335-13-4-.20(2)(d).

2. Areas which provide for ponding of surface water shall be filled, graded and an appropriate cover established as described in 335-13-4-.20(2)(d).

3. Landfilled areas with extensive surface cracks in soil cover shall be corrected as necessary, or as determined by the Department, to prevent infiltration of surface water.

4. An appropriate cover shall be maintained on the facility at all times as described in 335-13-4-.20(2)(d).

5. Access control structures shall be maintained or erected and signs shall be posted stating that the facility is closed and giving the location of the nearest permitted landfill unit.

6. Any waste dumped at the landfill unit following closure shall be removed to an approved landfill unit by the permittee, operating agency, or owner.

7. Monitoring devices and pollution control equipment such as groundwater monitoring wells, explosive gas monitoring systems, erosion, and surface water control structures, and leachate facilities shall be maintained. Monitoring requirements shall continue in effect throughout the active life and post-closure care period as determined by the Department unless all solid waste is removed and no unpermitted discharge to waters has occurred.

8. Other deficiencies, such as vector control, which may be observed by the Department shall be corrected.

(b) The length of the post-closure care period may be:

1. Decreased by the Department if the owner or operator demonstrates that the reduced period is sufficient to protect human health and the environment and this demonstration is approved by the Department; or

2. Increased by the Department if the Department determines that the lengthened period is necessary to protect human health and the environment.

(c) The owner or operator of all LF units must submit to the Department and receive approval as part of the permit application, a written post-closure plan. A copy must also be placed in the operating record. The post-closure plan must include, at a minimum, the following information:

1. A description of the monitoring and maintenance activities required in 335-13-4-.20(3)(a) for each LF unit, and the frequency at which these activities will be performed;

2. Name, address, and telephone number of the person or office to contact about the facility during the post-closure period; and

3. A description of the planned uses of the property during the post-closure period.

(d) Post-closure use of the property used for the disposal operation must never be allowed to disturb the integrity of the final cover, liner(s), or any other component of the containment system, or the function of the monitoring systems necessary to comply with the requirements of these rules. The Department may approve any other disturbance if the owner or operator demonstrates that the disturbance, including any removal of waste, complies with the following:

1. The activities will not increase the potential threat to human health or the environment; or

2. The activities are necessary to reduce a threat to human health or the environment.

(e) Following completion of the post-closure care period for each LF unit, the owner or operator must submit to the Department a certification, signed by an independent registered professional engineer verifying that post-closure care has been completed in accordance with the post-closure plan, and a copy placed in the operating record. A C/DLF owner or operator may submit certification signed by a registered professional engineer in lieu of an independent registered professional engineer.

(f) If the permittee or owner, or any subsequent owner of the land upon which a landfill unit is located wishes to remove waste, waste residues, the liner, if any, or any contaminated soils, the owner must request approval from the Department. The owner may also ask permission to remove the notation from the recording instrument if all waste and contaminated soils are removed from the property and no unpermitted discharges to waters have occurred.

Author: Russell A. Kelly; S. Scott Story, Heather M. Jones.

Statutory Authority: Code of Alabama 1975, §§ 22-27-3, 22-27-4, 22-27-7.

History: Effective: November 18, 1981. **Amended:** Effective: July 21, 1988.

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335-13-4-.21 General Operational Standards for Landfill Units. Any person or agency operating or planning to operate a landfill unit shall operate and maintain the facility consistent with this Division. General requirements for operating and maintaining an acceptable landfill unit shall be:

(1) General Operation.

(a) The operation and use of the landfill unit shall be as stipulated in the permit.

(b) Waste accepted at the facility shall be strictly controlled so as to allow only waste stipulated on the permit or otherwise as may be approved by the Department. The permittee of any facility permitted under these rules must have in the operating record a plan describing procedures the permittee will implement for detecting and preventing the disposal of free liquids, regulated hazardous wastes, regulated medical wastes, and regulated PCB wastes at the facility. This plan must include at a minimum:

1. Random inspections of incoming loads to ensure that incoming loads do not contain free liquids, regulated hazardous wastes, regulated medical wastes, or regulated PCB wastes.

2. Inspection of suspicious loads.

3. Records of all inspections to include the origin of waste suspected to be regulated hazardous, regulated medical, or regulated PCB waste, if known; transporters, to include transfer stations and all handlers of the waste en route to the disposal site; and any certifications from generators provided to the permittee or facility personnel. These records must be maintained on file in the operating record of the facility.

4. Training of facility personnel to recognize free liquids, regulated hazardous wastes, regulated medical wastes, and regulated PCB wastes.

5. Procedures for notifying the proper authorities if free liquids, regulated hazardous wastes, regulated medical wastes, or regulated PCB wastes are discovered at the facility.

6. Methods to identify all industrial users of the facility, producers of special wastes, and transporters of these wastes.

(c) Prior to disposal of industrial waste and/or medical waste, the permittee shall obtain from each generator a written certification that the material to be disposed does not contain free liquids, regulated hazardous wastes, regulated medical wastes, or regulated PCB wastes.

1. This certification may be based on laboratory analysis of the waste on a case-by-case basis, or documentation supporting the generator's knowledge of the wastestream(s), or as may be required by the Department.

2. Copies of the certification shall be submitted to the Department for disposal approval and for any specific requirements prior to disposal. After submittal of the required certification, the Department shall have five (5) working days to respond. If no response is given, the permittee may dispose of the material as proposed.

3. In the case of one-time emergency disposal requests, the permittee shall submit the required certification no later than five (5) days after the disposal of waste.

4. Certification shall be renewed or revised biennially (every two years) or at such time that operational changes at the point of generation could render the waste hazardous, whichever is more frequent and submitted to the Department for approval.

5. Copies of these certifications and approvals shall be maintained on file in the operating record of the facility and shall be made available for the Department upon request.

6. The above requirements notwithstanding and, as may otherwise be required, pursuant to Division 13 rules, generators will not be required to submit certification to the Department provided that:

(i) The waste will be disposed of at a non-commercial industrial waste landfill which has been permitted by the Department, and is owned either exclusively or mutually by the generator(s) of the waste, and which disposes of waste generated only by the owner(s);

(ii) The wastestream(s) to be disposed of are specifically described in the Solid Waste Landfill Permit issued by the Department or in the final application as referenced by the permit for the site designated to receive the waste;

(iii) The required certification, as described above, is maintained on-site by the owner(s) of the landfill; and

(iv) The required certification, as described above, is made available for inspection by the Department upon request.

(d) The landfill unit shall be operated in such a manner that there will be no water pollution or unauthorized discharge.

1. Any discharge resulting from a landfill unit or practice may require:

(i) A National Pollutant Discharge Elimination System (NPDES) permit under the Alabama Water Pollution Control Act as issued by the Department.

(ii) A dredge or fill permit from the Army Corps of Engineers as required under Section 404 of the Clean Water Act, as amended; or

(iii) That a non-point source of surface waters does not violate an area wide or statewide water quality management plan that has been approved under the Alabama Water Pollution Control Act.

2. The groundwater shall not be contaminated as specified by this Division.

(e) The historic and certified disposal areas shall be identified with a sufficient number of permanent markers which are at least visible from one marker to the next.

(f) Measuring or weighing devices shall be required for all municipal solid waste landfill units accepting solid waste. All solid waste shall be properly measured or weighed prior to disposal unless otherwise approved by the Department.

(g) Deep rooted vegetation (with roots that may grow below the six inch erosion layer) shall be prohibited as vegetative cover.

(h) With the exception of very small quantity generator waste disposed of in municipal solid waste landfills, regulated hazardous waste, as defined by Division 14 of the ADEM Administrative Code, is prohibited from disposal in a non-hazardous landfill unit.

(2) Open Burning.

(a) Open burning of solid waste at any landfill unit is prohibited unless approved by the Department as follows:

1. Clearing debris at the landfill unit such as trees and stumps may be burned if prior approval is received from the Department and the Alabama Forestry Commission.

2. Emergency clean-up debris resulting from catastrophic incidents may be burned at a permitted landfill unit if consistent with the intent of this Division and air pollution control requirements. Prior approval must be received from this Department and other appropriate agencies.

3. If approved, the burning shall not occur over previously filled areas or within 200 feet of existing disposal operations unless otherwise specified by the Department and such burning shall not cause a public nuisance or pose a threat to public health.

(b) The person or agency requesting permission to burn solid waste shall apply in writing to the Department, outlining why a burn request should be granted. This request should include, but not be limited to, specifically what areas will be utilized, types of waste to be burned, the projected starting and completion dates for the project, and the projected days and hours of operation.

Author: Russell A. Kelly; S. Scott Story; Heather M. Jones.

Statutory Authority: Code of Alabama 1975, §§ 22-22A-5, 22-27-3, 22-27-4, 22-27-7, 22-27-47, 22-27-48.

History: Effective: November 18, 1981. **Amended:** Effective: March 31, 1988 (Emergency Regulations). **Amended:** Effective: July 21, 1988. **Amended:** Effective: October 2, 1990. **Amended:** Effective: November 2, 1993. **Amended:** Effective: July 26, 1996. **Amended:** Filed: April 24, 2018; Effective: June 8, 2018; **Amended:** Filed: June 25, 2019; Effective: August 9, 2019; **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

335-13-4-.22 Specific Requirements for Municipal Solid Waste Landfills.

The following requirements in conjunction with 335-13-4-.21 shall be for operating and maintaining an acceptable MSWLF:

(1) Daily Operation.

(a) All waste shall be covered as follows:

1. A minimum of six inches of compacted earth or other alternative cover material ~~that includes but is not limited to foams, geosynthetic or waste products, and that~~ is approved by the Department shall be added at the conclusion of each day's operation or as otherwise approved by the Department to control disease vectors, fires, odors, blowing litter, and scavenging.

2. In the event that erosion develops on previously covered disposal areas, or when covered waste otherwise becomes exposed, cover must be re-applied to comply with the minimum cover requirements of subparagraph (1)(a)1. of this section.

3. Final closure shall be carried out in accordance with rule 335-13-4-.20 of this Division.

(b) All waste shall be confined to as small an area as possible within a single working face and spread to a depth not exceeding two feet prior to compaction, and such compaction shall be accomplished on a face slope not to exceed 4 to 1 (25%) or as otherwise approved by the Department.

(c) All waste shall be thoroughly compacted with adequate landfill equipment before the daily cover is applied. A completed daily cell shall not exceed eight feet in vertical thickness measured perpendicular to the slope of the preceding cell.

(d) The site shall be operated in accordance with approved plans and permits.

(e) Adequate personnel shall be provided to ensure continued and smooth operation of the facility.

(f) Adequate equipment shall be provided to ensure continued operation in accordance with permit and regulations.

(g) Provisions shall be made for disposal activities in adverse weather conditions.

(h) The site shall be adequately secured using artificial barriers, natural barriers, or both to prevent entry of unauthorized vehicular traffic.

(i) A sign outlining instructions for use of the site shall be posted at the entrance and shall include:

1. Name of facility,

2. Name of permittee and/or operating agency or person,
3. Days and hours of operation,
4. Disposal fees, and
5. Types of waste accepted if the site is available to the general public or commercial haulers.

(j) Special provisions shall be made for handling large dead animals or highly putrescible waste. Immediately covering the waste with a minimum of 12 inches of cover in a designated area of the facility shall be included in these provisions.

(k) Bulk or noncontainerized liquid waste, or containers capable of holding liquids, shall not be accepted at a landfill unit unless:

1. The liquid is household waste other than septic waste;
2. The liquid is leachate or gas condensate derived from the MSWLF unit, and the MSWLF unit is designed with a minimum composite liner and leachate collection system or approved equivalent liner and leachate collection system; or
3. The containers:
 - (i) Are similar in size to that normally found in household waste;
 - (ii) Are designed to hold liquids for use other than storage; or
 - (iii) Contain household wastes.
- (l) Empty containers larger in size than normally found in household waste must be rendered unsuitable for holding liquids prior to disposal in the landfill unit unless otherwise approved by the Department.

(m) Unless otherwise provided by 335-13-4-.22(1)(k), free liquids are prohibited from disposal in the landfill unit.

(nm) MSWLF units containing sewage sludge and failing to satisfy the criteria in this Division violate Sections 309 and 405(e) of the Clean Water Act.

- (2) Routine Maintenance.
 - (a) Scavenging shall be prohibited and salvaging operations shall be controlled.
 - (b) Litter shall be controlled within the permitted facility.
 - (c) An all-weather access road shall be provided to the dumping face.

(d) Measures shall be taken to prevent the breeding or accumulation of disease vectors. If determined necessary by the Department or the State Health Department, additional disease vector control measures shall be conducted.

(e) Environmental monitoring and treatment structures shall be clearly marked and identified, protected and maintained in good repair and shall be easily accessible.

(f) Completed sites or portions of sites shall be properly closed as provided by this Division and approved facility plans.

(g) The average daily volume of waste received at a MSWLF shall be calculated by dividing the total month's receipts by the total number of days in the reporting month. Records shall be maintained on the average daily volume of waste received at MSWLFs. A quarterly report ~~utilizing a format approved by the Department~~ which summarizes the daily volumes, with volumes received reported in a format specified and approved by the Department, shall be submitted to the Department and maintained on file in the operating record of the facility by the permittee. If the average daily volume is exceeded for two or more consecutive quarters, by 20 percent or 100 tons/day, whichever is less, a modification would be required to adjust the permitted average daily volume.

(3) Additional Requirements.

(a) Owners or operators of all MSWLFs must ensure that the units do not violate any applicable requirements developed under a State Implementation Plan (SIP) approved or promulgated by the Administrator pursuant to Section 110 of the Clean Air Act, as amended.

(b) Notwithstanding this rule, additional requirements for operating and maintaining a MSWLF may be imposed by the Department, as deemed necessary, to comply with the Act and this Division.

Author: Russell A. Kelly; S. Scott Story; Heather M. Jones.

Statutory Authority: Code of Alabama 1975, §§ 22-27-3, 22-27-4, 22-27-7.

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335-13-4-.23 Specific Requirements for Inert- Construction/Demolition Landfills and Industrial Landfills. The following requirements in conjunction with 335-13-4-.21 shall be for operating and maintaining an acceptable C/DLF or ILF:

(1) Operation.

(a) All waste shall be covered as follows:

1. A minimum of six inches of compacted earth or other alternative cover material ~~that includes but is not limited to foams, geosynthetic or waste products, and that~~ is approved by the Department shall be added at the conclusion of each week's operation or as otherwise specified by the Department to control disease vectors, fires, odors, blown litter and scavenging.

2. In the event that erosion develops on previously covered disposal areas, or when covered waste otherwise becomes exposed, cover must be re-applied to comply with the minimum cover requirements of subparagraph (1)(a)1. of this section.

3. Final closure shall be carried out in accordance with 335-13-4-.20 of this Division.

(b) All waste shall be thoroughly spread in layers two feet or less in thickness and thoroughly compacted weekly with adequate landfill equipment prior to placing additional layers of waste or placing the weekly cover as specified in 335-13-4-.23(1)(a)1., unless otherwise approved by the Department. Waste, such as construction/demolition waste and other types of waste, which cannot be managed by landfill equipment in this manner shall be managed in a manner approved by the Department.

(c) All waste shall be confined to as small an area as possible within a single working face and placed onto an appropriate slope not to exceed 4 to 1 (25%) or as approved by the Department.

(d) The facility shall be operated in accordance with approved plans and permits.

(e) The site shall be adequately secured to prevent entry except by authorized person(s) unless an operator is on site.

(f) If the site is available to the public or commercial haulers, a sign shall be posted at the landfill stating:

1. Name of permittee,
2. Owner and/or operator,
3. Name of landfill,
4. Days and hours of operation,

5. Waste types accepted, and

6. Disposal fees for use of the landfill.

(g) Provisions shall be made for disposal activities in adverse weather conditions.

(h) Adequate personnel shall be provided to ensure continued and smooth operation of the site.

(i) Adequate equipment shall be provided to ensure continued operation in accordance with permit and regulations.

(j) Bulk or non-containerized liquid waste, or containers capable of holding liquids, shall not be accepted at a C/DLF or ILF unless:

1. The liquid is leachate or gas condensate derived from the C/DLF or ILF unit, and

2. The C/DLF or ILF unit is designed with a minimum single liner and leachate collection system or approved equivalent liner and leachate collection system.

(k) Empty containers larger than 10 gallons in size must be rendered unsuitable for holding liquids prior to disposal in the landfill unit unless otherwise approved by the Department.

(l) Unless otherwise provided by 335-13-4-.23(1)(j), free liquids are prohibited from disposal in the landfill unit.

(2) Routine Maintenance.

(a) Scavenging shall not be permitted, and salvaging operations shall be controlled.

(b) Litter shall be controlled within the permitted facility.

(c) Completed sites or portions of sites shall be properly closed as provided by this Division and approved facility plans.

(d) An all-weather access road shall be provided to the dumping face.

(e) Environmental monitoring and treatment structures shall be protected and maintained in good repair and easily accessible.

(f) The average daily volume of waste received at a C/DLF or ILF shall be calculated by dividing the total month's receipts by the total number of days in the reporting month. Records shall be maintained on the average daily volume of waste received at C/DLFs and ILFs. A quarterly report ~~utilizing a format approved by the Department~~ which summarizes the daily volumes, with volumes received reported in a format specified and approved by the Department, shall be

submitted to the Department and maintained on file in the operating record of the facility by the permittee. If the average daily volume is exceeded for two or more consecutive quarters, by 20 percent or 100 tons/day, whichever is less, a modification would be required to adjust the permitted average daily volume.

(g) Measures shall be taken to prevent the breeding or accumulation of disease vectors. If determined necessary by the Department or the State Health Department, additional disease vector control measures shall be conducted.

(3) Additional Requirements.

(a) Notwithstanding this rule, certain requirements for operating and maintaining a C/DLF or ILF may be enhanced or reduced by the Department as deemed necessary to comply with the Act and this Division. Any action by the Department to enhance or reduce the requirement(s) must be done in writing from the Department.

(b) [Reserved]

(c) Industrial landfills which accept coal combustion residuals must also adhere to the applicable requirements of ADEM Admin. Code 335-13-15.

Author: Russell A. Kelly, Eric L. Sanderson; Heather M. Jones.

Statutory Authority: Code of Alabama 1975, §§ 22-27-3, 22-27-4, 22-27-7.

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335-13-4-.26 Requirements for Management and Disposal of Special Waste.

(1) Exceptions.

(a) Requirements for the management and disposal of special waste at a landfill unit permitted by the Department shall meet the requirements of this rule.

(b) Certain requirements may be modified by the Department as deemed necessary to comply with the Act and this Division.

1. Waste types for which specific rules and regulations under this Division have not been developed shall be managed and disposed of in a manner as determined by the Department to be consistent with the intent of the Act and this Division.

2. Generators of a special waste may be required by the Department to provide an analysis and certification that the waste is nonhazardous waste or treated medical waste.

(2) Disposal requirements for friable asbestos. Any person who generates, processes, treats, or disposes of friable asbestos shall comply with the following practices:

(a) Friable asbestos shall be disposed of in a facility permitted by the Department. The friable asbestos shall arrive at the landfill unit in properly labeled, leak-tight containers as determined by the Department's Air Division.

(b) Containers shall be placed intact in a specially prepared place and covered with a minimum of 12 inches of earth or other alternative cover material, as approved by the Department, at the end of each working day. Asbestos waste may be landfilled in an excavation at the bottom of the operating face if no liner is present or the design depth restriction is not exceeded. The waste may also be placed in a separately designated area. If a separate area is utilized, it shall be clearly marked to prevent future excavation into the waste.

(c) Proper handling precautions shall be taken to ensure that containers are not ruptured prior to placing the required daily ~~earth~~-cover as noted in 335-13-4-.26(2)(b). No machinery shall be operated directly over uncovered containers.

(d) Final cover shall be as noted in 335-13-4-.20(2)(b).

(3) Disposal requirements for foundry wastes. Foundry waste which exhibits less than 50 percent of each of the TC Levels for metals as defined by the USEPA's Toxicity Characteristic Leaching Procedure (TCLP) may be managed in the following manner:

(a) Foundry waste may be managed in areas other than

1. Flood Plains;

2. Wetlands;
3. Residential zones; or
4. Areas less than 5 feet above the uppermost aquifer.

(b) Each foundry must maintain records at the manufacturing facility. These records must include:

1. A description of the site to within the $\frac{1}{4}$, $\frac{1}{4}$ Section of a specific township and range.
2. Volume of foundry waste disposed of at each location.

(c) The waste must be certified by the generator on a quarterly basis or whenever the process changes which would significantly alter the test results, whichever is more frequent. Certification of the foundry waste shall be accomplished by submitting the following:

1. A completed Solid/Hazardous Waste Determination Form.
2. A TCLP analysis for metals.

(d) Each foundry must contact the Water Division of ADEM with regards to General Stormwater and/or NPDES permits.

(e) Foundry waste from two or more foundries may be managed at one location provided adequate documentation and record keeping is maintained for each foundry.

(f) Foundry waste not meeting the requirements of paragraph (3) of this rule must be managed at an approved recycle/reuse facility or at a landfill unit approved for the disposal of foundry waste and permitted by the Department.

(4) Disposal requirements for petroleum contaminated waste. Any person who disposes of petroleum contaminated waste shall comply with the following practices:

(a) Petroleum contaminated waste must be disposed of in a MSWLF and/or a synthetically lined facility having a solid waste disposal permit issued by the Department and having groundwater monitoring wells.

(b) Prior to disposing of a petroleum contaminated waste in accordance with subparagraph (a) of this paragraph, the generator of the waste must provide the Department with a written certification that the waste is non-hazardous.

1. The generator of a petroleum contaminated waste may use knowledge of the processes producing the waste to certify that the waste is non-hazardous; however the Department, on a case-by-case basis, may require additional information and/or laboratory analyses to support the generator's certification.

2. The written certification that the waste is non-hazardous must include laboratory analysis for metals if the source of the petroleum contamination is leaded gasoline, used automotive crank case oil, or if the generator has reason to believe that the source contains TCLP metals.

(c) Small quantities of petroleum contaminated waste may be disposed in MSWLFs, C/DLFs, or ILFs, and shall not require approval and/or testing, provided that the waste:

1. Contains less than twenty-five (25) gallons of petroleum; and
2. Total material (i.e., soil, rags, sorbent, etc.) is less than five (5) cubic yards per occurrence.

(5) Disposal requirements for municipal solid waste ash. Municipal solid waste ash shall be disposed of at a MSWLF meeting at a minimum the design criteria established under 335-13-4-.18. Alternative disposal methods or uses must be approved by the Department prior to implementation.

(6) Disposal requirements for wood ash waste. Wood ash waste which exhibits less than 50 percent of each of the TC Levels for metals as defined by the USEPA's Toxicity Characteristic Leaching Procedure (TCLP) may be managed in the following manner:

(a) Wood ash waste may be managed in areas other than

1. Flood Plains;
2. Wetlands;
3. Residential zones; or
4. Areas less than 5 feet above the uppermost aquifer.

(b) Facilities managing wood ash waste in an area that is not a permitted landfill unit, not within the property boundaries of the generator, and meets the requirements of 335-13-4-.26 (6)(a) must maintain records at the facility that include the following:

1. A description of the site to within the $\frac{1}{4}$, $\frac{1}{4}$ Section of a specific Township and Range.

2. Volume of the wood ash waste disposed of at each location on a quarterly basis.

3. Certification of the wood ash waste on a quarterly basis or whenever the waste generating process changes which would significantly alter the test results, whichever is more frequent. Certification of the wood ash waste must be accomplished by submitting the following:

- (i) A completed Solid/Hazardous Waste Determination Form.

(ii) A TCLP analysis for metals.

(c) Facilities managing wood ash waste in an area that is not a permitted landfill unit, within the property boundaries of the generator, and meets the requirements of 335-13-4-.26 (6)(a) must maintain records at the facility that include the following:

1. Certification of the wood ash waste on a two (2) year basis or whenever the waste generating process changes which would significantly alter the test results, whichever is more frequent. Certification of the wood ash waste must be accomplished by submitting the following:

(i) A completed Solid/Hazardous Waste Determination Form.

(ii) A TCLP Analysis for metals.

(d) Each facility managing wood ash waste in accordance with 335-13-4-.26(6) shall submit an annual report on or before January 31st of each year utilizing a format approved by the Department which contains the following:

1. Summary of the components of 335-13-4-.26(6)(b) and/or (c).

2. Documentation of the non-coal permitted fuel burned on a quarterly basis to include the type, quantity (mass input basis), and the percentage of total fuel, of each type of fuel burned.

(e) Facilities managing wood ash waste in an area that is not a permitted landfill unit and meets the requirements of 335-13-4-.26 (6)(a) must contact the Water Division of the ADEM with regards to NPDES requirements for waste management areas.

(f) Wood ash waste from two or more facilities may be managed at one location provided adequate documentation and record keeping is maintained for each generator.

(g) Wood ash waste not meeting the requirements of paragraph (6) of this rule must be managed at a landfill unit approved for the disposal of wood ash waste and permitted by the Department.

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Statutory Authority: Code of Alabama 1975, §§ 22-27-3, 22-27-4, 22-27-7.

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335-13-4-27 Groundwater Monitoring and Corrective Action. The requirements for groundwater monitoring and corrective action at MSWLFs, C/DLFs, and ILFs are presented in the following paragraphs:

(1) Applicability.

(a) The requirements in this rule shall apply to all MSWLF units and, when determined necessary by the Department to protect public health and the environment, the requirements in this rule or any part thereof shall apply to C/DLF units and/or ILF units, except as provided in subparagraph (b) of this paragraph.

(b) Groundwater monitoring requirements under paragraphs (2) through (4) of this rule may be suspended by the Department for a LF unit if the owner or operator can demonstrate that there is no potential for migration of hazardous constituents from that LF unit to the first saturated zone, as defined in 335-13-1-.03, during the active life of the unit and the post-closure care period. This demonstration must be certified by a qualified groundwater scientist, as defined in 335-13-1-.03, and approved by the Department, and must be based upon:

1. Site-specific field collected measurements, sampling, and analysis of physical, chemical, and biological processes affecting contaminant fate and transport, and

2. Contaminant fate and transport predictions that maximize contaminant migration and consider impacts on human health and environment.

(c) Owners and operators of LF units must comply with the groundwater monitoring requirements of this rule according to the following schedule.

1. All LF units must be in compliance with the groundwater monitoring requirements specified in paragraphs (2) through (4) of this rule.

2. New LF units must be in compliance with the groundwater monitoring requirements specified in paragraphs (2) through (4) of this rule before waste can be placed in the unit.

(d) Once established at a LF unit, groundwater monitoring shall be conducted throughout the active life and post-closure care period of that LF unit as specified in 335-13-4-.20.

(e) The Department may establish alternative schedules for demonstrating compliance with Department notification (and placement of notification in operating record) requirements of this rule.

(2) Groundwater Monitoring Requirements.

(a) A groundwater monitoring system must be installed that consists of a sufficient number of wells, installed at appropriate locations and depths, to

yield groundwater samples from the first saturated zone (as defined in 335-13-1-.03 that:

1. Represent the quality of background groundwater that has not been affected by leakage from a unit. A determination of background quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:

(i) Hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; or

(ii) Sampling at other wells will provide an indication of background groundwater quality that is as representative or more representative than that provided by the upgradient wells; and

2. Represent the quality of groundwater passing the relevant point of compliance specified by the Department under subparagraph (a)3. of this paragraph.

(i) The downgradient monitoring system must be installed at the relevant point of compliance specified by the Department under subparagraph (a)3. of this paragraph that ensures detection of groundwater contamination in the first saturated zone.

(ii) When physical obstacles preclude installation of groundwater monitoring wells at the relevant point of compliance at existing units, the down-gradient monitoring system may be installed at the closest practicable distance hydraulically down-gradient from the relevant point of compliance specified by the Department under subparagraph (a)3. of this paragraph that ensures detection of groundwater contamination in the uppermost aquifer.

3. The relevant point of compliance shall be no more than 150 meters (492 feet) from the waste management unit boundary and shall be located on land owned by the owner of the landfill unit. In determining the relevant point of compliance, the following factors shall be considered, at a minimum:

(i) The hydrogeologic characteristics of the facility and surrounding land;

(ii) The volume and physical and chemical characteristics of the leachate;

(iii) The quantity, quality, and direction of groundwater flow;

(iv) The proximity and withdrawal rate of the groundwater users;

(v) The availability of alternative drinking water supplies;

(vi) The existing quality of the groundwater, including other sources of contamination and their cumulative impacts on the groundwater and whether

groundwater is currently used or reasonably expected to be used for drinking water;

(vii) Public health, safety, and welfare effects; and

(viii) Practicable capability of the owner or operator.

(b) The Department may approve a multi-unit groundwater monitoring system instead of separate groundwater monitoring systems for each MSWLF unit when the facility has several units, provided the multi-unit groundwater monitoring system meets the requirement of subparagraph (a) of this paragraph and will be as protective of human health and the environment as individual monitoring systems for each MSWLF unit. This approval will be based on the following factors:

1. Number, spacing, and orientation of the MSWLF units;
2. Hydrogeologic setting;
3. Site history;
4. Engineering design of the MSWLF units; and
5. Type of waste accepted at the MSWLF units.

(c) Well design and construction

1. Groundwater monitoring wells shall be designed and constructed in accordance with the following reference: "Design and Installation of Groundwater Monitoring Wells in Aquifers", ASTM Subcommittee D18.21 on Groundwater Monitoring, or otherwise as specifically approved by the Department.

2. Plans for groundwater monitoring well location, design, construction and/or abandonment shall be submitted to the Department for review and approval prior to installation.

3. The monitoring wells must be cased in a manner that maintains the integrity of the monitoring well bore hole.

(i) This casing must be screened or perforated and packed with gravel or sand, where necessary, to enable collection of groundwater samples.

(ii) The annular space (i.e., the space between the bore hole and well casing) above the sampling depth must be sealed to prevent contamination of samples and the groundwater.

4. The owner or operator must notify the Department that the design, installation, development, and/or abandonment of any monitoring wells, piezometers and other measurement, sampling, and analytical devices has been documented and placed in the operating record; and

(d) Monitoring wells, piezometers, and other measurement, sampling, and analytical devices must be operated and maintained so that they perform to design specifications throughout the life of the monitoring program.

(e) Abandoned wells and bore holes shall be abandoned in accordance with the following procedures in order to prevent contamination of groundwater resources. A plan of abandonment must be submitted and approved by the Department prior to implementing abandonment of any well.

1. A well shall be measured for depth prior to sealing to ensure that it is free from any obstructions that may interfere with sealing operations.

2. Where feasible, wells shall be completely filled with neat cement. If the well cannot be completely filled, the sealing materials for the top 20 feet must be neat cement and no material that could impart taste, odor, or toxic components to water may be used in the sealing process.

3. Liner pipe shall be removed from each well in order to ensure placement of an effective seal. If the liner pipe cannot be readily removed, it shall be perforated to ensure that proper sealing is obtained.

4. Concrete, cement grout, or neat cement shall be used as primary sealing materials and shall be placed from the bottom upwards using methods that will avoid segregation or dilution of material.

5. Complete, accurate records of the abandonment procedure shall be kept for each well abandoned. The record of abandonment shall include, at a minimum, the depth of each layer of all sealing and backfilling materials, the quantity of sealing materials used, measurements of static water levels and depths, and any changes made in the well during the sealing. A copy of these records shall be submitted to the Department and a copy placed in the operating record.

(f) The number, spacing, and depths of monitoring systems shall be:

1. Determined based upon site-specific technical information that must include thorough characterization of:

(i) Aquifer thickness, groundwater flow rate, groundwater flow direction including seasonal and temporal fluctuations in groundwater flow; and

(ii) Saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer, including, but not limited to: thickness, stratigraphy, lithology, hydraulic conductivity, porosity and effective porosity.

2. Certified by a qualified groundwater scientist and approved by the Department. Within 14 days of the Department's approval, the owner or operator

must notify the Department that the certification has been placed in the operating record.

(g) The groundwater monitoring program must include consistent sampling and analytical methods that are:

1. Designed to ensure monitoring results that provide an accurate representation of groundwater quality at the background and downgradient wells which have been installed in compliance with subparagraph (a) of this paragraph.

(i) The groundwater monitoring program, and subsequent documentation, must be submitted to the Department for approval and appropriate copies placed in the operating record.

(ii) The program must include procedures and techniques for:

(I) Sample collection;

(II) Sample preservation and shipment;

(III) Analytical procedures;

(IV) Chain of custody control; and

(V) Quality assurance and quality control.

2. Appropriate for groundwater sampling and that accurately measure hazardous constituents and other monitoring parameters in groundwater samples.

(h) Groundwater samples shall not be field-filtered prior to laboratory analysis.

(i) The sampling procedures and frequency must be protective of human health and the environment.

1. Groundwater elevations must be measured in each well immediately prior to purging, each time groundwater is sampled.

2. Groundwater elevations in wells which monitor the same waste management area must be measured within a 48 hour period to avoid temporal variations in groundwater flow which could preclude accurate determination of groundwater flow rate and direction.

3. The owner or operator must determine the rate and direction of groundwater flow each time groundwater is sampled.

(j) The owner or operator must establish background groundwater quality in a hydraulically upgradient or background well(s) for each of the monitoring parameters or constituents required in the particular groundwater monitoring program that applies to the LF unit, as determined under

subparagraphs (3)(a) or (4)(a) of this rule. Background groundwater quality may be established at wells that are not located hydraulically upgradient from the LF unit if it meets the requirements of subparagraph (a)1. of this paragraph.

(k) The number of samples collected to establish groundwater quality data must be consistent with the appropriate statistical procedures determined pursuant to subparagraph (l) of this paragraph. The sampling procedures shall be those specified under subparagraph (3)(b) of this rule for detection monitoring, subparagraphs (4)(b) and (4)(d) of this rule for assessment monitoring, and subparagraph (5)(b) of this rule for corrective action.

(l) The owner or operator must specify in writing to the Department and place in the operating record one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent. The statistical test chosen shall be conducted separately for each hazardous constituent in each well.

1. A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

2. An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

3. A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

4. A control chart approach that gives control limits for each constituent.

5. Another statistical test method that meets the performance standards of subparagraph (m) of this paragraph. The owner or operator must place a justification for this alternative in the operating record and submit it to the Department for approval to use this alternative test. The justification must demonstrate that the alternative method meets the performance standards of subparagraph (m) of this paragraph.

(m) Any statistical method chosen under subparagraph (l) of this paragraph shall comply with the following performance standards, as appropriate:

1. The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of chemical parameters or

hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

2. If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.

3. If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values shall be protective of human health and the environment. The parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

4. If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be protective of human health and the environment. These parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

5. The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantitation limit (pql) that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

6. If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability, as well as temporal correlation in the data.

(n) The owner or operator must determine and certify in writing to the Department if there is a statistically significant increase (SSI) over background values for each parameter or constituent required in the groundwater monitoring program.

1. In determining whether an SSI has occurred, the owner or operator must compare the groundwater quality of each parameter or constituent at each

monitoring well to the background value of that constituent, according to the statistical procedures and performance standards specified under this rule.

2. Within 30 days after completing sampling and receiving analytical results, the owner or operator must determine whether there has been an SSI over background at each monitoring well.

3. If an SSI over background groundwater quality is detected, the owner/operator must notify the Department within 14 days of this event.

(3) Detection Monitoring.

(a) Detection monitoring is required at LF units for all groundwater monitoring wells defined under subparagraphs (2)(a)1.(i) and (ii) of this rule.

1. At a minimum, a detection monitoring program for MSWLF units must include monitoring for the constituents listed in Appendix I of this chapter.

2. Detection monitoring programs for C/DLFs or ILFs may include monitoring for constituents listed in Appendix I of this chapter, or an alternative list, as specified by the Department.

3. The Department may delete any of the detection monitoring parameters for a LF unit if it can be shown that the removed constituents are not reasonably expected to be contained in or derived from the waste contained in the unit.

4. The Department may establish an alternative list of indicator parameters for a MSWLF unit, in addition to the Appendix I constituents, if the additional parameters provide a reliable indication of releases from the MSWLF unit to the groundwater. In determining alternative parameters, the Department shall consider the following factors:

(i) The types, quantities, and concentrations of constituents in waste managed at the LF unit;

(ii) The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the LF unit;

(iii) The detectability of indicator parameters, waste constituents, and reaction products in the groundwater; and

(iv) The concentration or values and coefficients of variation of monitoring parameters or constituents in the groundwater background.

(b) Frequency.

1. The monitoring frequency for all constituents listed in Appendix I, or in the alternative list approved in accordance with subparagraph (a). of this paragraph, shall be at least semiannual during the active life of the facility (including closure) and the post-closure period. The owner or operator must

submit a semi-annual report to the Department to coincide with and report the results of the semi-annual sampling event within ninety (90) days of the date of sampling. The report shall be certified by a qualified groundwater scientist.

(i) A minimum of four independent samples from each well (background and downgradient) must be collected and analyzed for the Appendix I constituents, or the alternative list approved in accordance with subparagraph (a) of this paragraph, during the first semiannual sampling event.

(ii) At least one sample from each well (background and downgradient) must be collected and analyzed during subsequent semiannual sampling events.

2. The Department may specify an appropriate alternative frequency for repeated sampling and analysis for Appendix I constituents, or the alternative list approved in accordance with subparagraph (a) of this paragraph, during the active life (including closure) and the post-closure care period.

(i) The alternative frequency during the active life (including closure) shall be no less than annual.

(ii) The alternative frequency shall be based on consideration of the following factors:

(I) Lithology of the aquifer and unsaturated zone;

(II) Hydraulic conductivity of the aquifer and unsaturated zone;

(III) Groundwater flow rates;

(IV) Minimum distance between upgradient edge of the LF unit and downgradient monitoring well screen (minimum distance of travel); and

(V) Resource value of the aquifer.

(c) If the owner or operator determines, pursuant to subparagraph (2)(l) of this rule, that there is an SSI over background for one or more of the constituents listed in Appendix I, or in the alternative list approved in accordance with subparagraph (a) of this paragraph, at any monitoring well at the boundary specified under subparagraph (2)(a)1.(ii) of this rule, the owner or operator:

1. Must, within 14 days of this finding, place a notice in the operating record, and submit a copy of this notice to the Department, indicating which constituents have shown statistically significant changes from background levels, and notify the Department that this notice was placed in the operating record; and

2. Must establish an assessment monitoring program meeting the requirements of subparagraphs (4)(a) through (j) of this rule within 90 days except as provided for under subparagraph (2)(c)3. of this rule.

3. May demonstrate that a source other than a LF unit caused the contamination or that the SSI resulted from an error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

(i) A report documenting this demonstration must be certified by a qualified groundwater scientist, approved by the Department and be placed in the operating record.

(ii) If a successful demonstration is made and documented, the owner or operator may continue detection monitoring as specified in this rule. If, after 90 days, a successful demonstration is not made, the owner or operator must initiate an assessment monitoring program as required in subparagraphs (4)(a) through (j) of this rule.

(4) Assessment Monitoring.

(a) Assessment monitoring is required whenever an SSI over background has been detected for one or more of the constituents listed in Appendix I or in the alternative list approved in accordance with subparagraph (3)(a) of this rule.

(b) Frequency.

1. Within 90 days of triggering an assessment monitoring program, and annually thereafter, the owner or operator must sample and analyze the groundwater for all constituents identified in Appendix II of this Chapter.

(i) A minimum of one sample from each downgradient well must be collected and analyzed during each sampling event.

(ii) For any constituent detected in the downgradient wells as the result of the complete Appendix II analysis, a minimum of four independent samples from each well (background and downgradient) must be collected and analyzed to establish background for the new constituents.

2. The Department may specify an appropriate subset of wells to be sampled and analyzed for Appendix II constituents during assessment monitoring. The Department may delete any of the Appendix II monitoring parameters for a LF unit if it can be shown that the removed constituents are not reasonably expected to be in or derived from the waste contained in the unit. The Department may establish an alternative list of parameters for a facility required to conduct groundwater monitoring, in addition to the Appendix II constituents, if the addition of the parameters is warranted based on waste handling practices at the facility. In determining alternative parameters, the Department shall consider the factors listed in 335-4-.27(3)(a)4.(i) through (iv).

(c) The Department may specify an appropriate alternate frequency for repeated sampling and analysis for the full set of Appendix II constituents, or the alternative list approved in accordance with subparagraph (4)(b)2. of this rule,

during the active life (including closure) and post-closure care of the unit considering the following factors:

1. Lithology of the aquifer and unsaturated zone;
2. Hydraulic conductivity of the aquifer and unsaturated zone;
3. Groundwater flow rates;
4. Minimum distance between upgradient edge of the LF unit and downgradient monitoring well screen (minimum distance of travel);
5. Resource value of the aquifer; and
6. Nature (fate and transport) of any constituents detected in response to this rule.

(d) After obtaining the results from the initial or subsequent sampling events required in subparagraph (b) of this paragraph, the owner or operator must:

1. Within 14 days, place a notice in the operating record identifying the Appendix II constituents, or the alternative list approved in accordance with subparagraph (4)(b)2. of this rule, that have been detected and notify the Department that this notice has been placed in the operating record;

2. Within 90 days, and on at least a semiannual basis thereafter,

- (i) Resample all wells specified by subparagraph (2)(a) of this rule with a minimum of one sample from each well (background and downgradient) being collected and analyzed during these sampling events,

- (ii) Conduct analyses for all constituents in Appendix I or in the alternative list approved in accordance with subparagraph (3)(a) of this rule, and for those constituents in Appendix II, or in the alternative list approved in accordance with subparagraph (4)(b)2. of this rule, that are detected in response to subparagraph (b) of this paragraph, and

- (iii) Record their concentrations in the facility operating record.

- (iv) The Department may specify an alternative monitoring frequency during the active life (including closure) and the post closure period for the constituents referred to in this paragraph. The alternative frequency for Appendix I constituents, or the alternative list approved in accordance with subparagraph (3)(a) of this rule, during the active life (including closure) shall be no less than annual. The alternative frequency shall be based on consideration of the factors specified in subparagraph (c) of this paragraph;

3. Establish background concentrations for any constituents detected pursuant to subparagraph (b) or subparagraph (d)2. of this paragraph; and

4. Establish groundwater protection standards for all constituents detected pursuant to subparagraph (b) or subparagraph (d)2. of this paragraph. The groundwater protection standards shall be established in accordance with subparagraphs (h) or (i) of this paragraph.

(e) If the concentrations of all Appendix II constituents, or the alternative list approved in accordance with subparagraph (4)(b)2. of this rule, are shown to be at or below background values, using the statistical procedures in subparagraph (2)(l) of this rule, for two consecutive sampling events, the owner or operator must notify the Department of this finding and may return to detection monitoring.

(f) If the concentrations of any Appendix II constituents, or the alternative list approved in accordance with subparagraph (4)(b)2. of this rule, are above background values, but all concentrations are below the groundwater protection standard established under subparagraphs (h) or (i) of this paragraph, using the statistical procedures in subparagraph (2)(l) of this rule, the owner or operator must continue assessment monitoring in accordance with this rule.

(g) If one or more Appendix II constituents, or the alternative list approved in accordance with subparagraph (4)(b)2. of this rule, are detected at statistically significant levels above the groundwater protection standard established under subparagraphs (h) or (i) of this paragraph in any sampling event, within 14 days of this finding, the owner or operator must:

1. Place a notice in the operating record identifying the Appendix II constituents, or the alternative list approved in accordance with subparagraph (4)(b)2. of this rule, that have exceeded the groundwater protection standard and

2. Notify the Department and all appropriate local government officials that the notice has been placed in the operating record.

3. And must, either:

(i) Characterize the nature and extent of the release by installing additional monitoring wells as necessary,

(ii) Install at least one additional monitoring well at the facility boundary in the direction of contaminant migration and sample this well in accordance with subparagraph (d)2. of this paragraph,

(iii) Notify all persons who own the land or reside on the land that directly overlies any part of the plume of contamination if contaminants have migrated off-site as indicated by sampling of wells in accordance with subparagraphs (g)3.(i) and (ii) of this paragraph, and

(iv) Initiate an assessment of corrective measures as required by subparagraphs (5)(a) through (d) of this rule within 90 days;

4. Or may demonstrate that a source other than a LF unit caused the contamination, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. A report documenting this demonstration must be certified by a qualified groundwater scientist or approved by the Department and placed in the operating record. If a successful demonstration is made, the owner or operator must continue monitoring in accordance with the assessment monitoring program pursuant to subparagraphs (a) through (j) of this paragraph, and may return to detection monitoring if the Appendix II constituents, or the alternative list approved in accordance with subparagraph (4)(b)2. of this rule, are at or below background as specified in subparagraph (e) of this paragraph. Until a successful demonstration is made, the owner or operator must comply with subparagraph (g) of this paragraph, including initiating an assessment of corrective measures.

(h) The owner or operator must establish a groundwater protection standard for each Appendix II constituent, or each constituent in the alternative list approved in accordance with subparagraph (4)(b)2. of this rule, detected in the groundwater. The groundwater protection standard shall be:

1. For constituents for which a maximum contaminant level (MCL) has been promulgated under Section 1412 of the Safe Drinking Water Act (codified under 40 CFR 141, the MCL for that constituent;

2. For constituents for which MCLs have not been promulgated, the background concentration for the constituent established from wells in accordance with subparagraph (2)(a)1. of this rule; or

3. For constituents for which the background level is higher than the MCL identified under subparagraph (h)1. of this paragraph or health based levels identified under subparagraph (i)1. of this paragraph, the background concentration.

(i) The Department may establish an alternative groundwater protection standard for constituents for which MCLs have not been established. These groundwater protection standards shall be appropriate health based levels that satisfy the following criteria:

1. The level is derived in a manner consistent with EPA guidelines for assessing the health risks of environmental pollutants (51 FR 33992, 34006, 34014, 34028, September 24, 1986);

2. The level is based on scientifically valid studies conducted in accordance with the Toxic Substances Control Act Good Laboratory Practice Standards (40 CFR 792) or equivalent;

3. For carcinogens, the level represents a concentration associated with an excess lifetime cancer risk level (due to continuous lifetime exposure) with the 1×10^{-4} to 1×10^{-6} range; and

4. For systemic toxicants, the level represents a concentration to which the human population (including sensitive subgroups) could be exposed to on a daily basis that is likely to be without appreciable risk of deleterious effects during a lifetime. For purposes of this rule, systemic toxicants include toxic chemicals that cause effects other than cancer or mutation.

(j) In establishing groundwater protection standards under subparagraph (i) of this paragraph, the Department may consider the following:

1. Multiple contaminants in the groundwater;
2. Exposure threats to sensitive environmental receptors; and
3. Other site-specific exposure or potential exposure to groundwater.

(5) Corrective Action Requirements.

(a) Within 90 days of finding that any of the constituents listed in Appendix II or in the alternative list approved in accordance with subparagraph (4)(b)2. of this rule, have been detected at a statistically significant level exceeding the groundwater protection standards defined under subparagraphs (4)(h) or (i) of this rule, the owner or operator must initiate an assessment of corrective measures. Such an assessment must be completed within a reasonable period of time.

(b) The owner or operator must continue to monitor in accordance with the assessment monitoring program as specified in subparagraphs (4)(a) through (j) of this rule.

(c) The assessment shall include an analysis of the effectiveness of potential corrective measures in meeting all of the requirements and objectives of the remedy as described under subparagraphs (c) through (i) of this paragraph, addressing at least the following:

1. The performance, reliability, ease of implementation, and potential impacts of appropriate potential remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination;
2. The time required to begin and complete the remedy;
3. The costs of remedy implementation; and
4. The institutional requirements such as State or local permit requirements or other environmental or public health requirements that may substantially affect implementation of the remedy(s).

(d) The owner or operator must discuss the results of the corrective measures assessment, prior to the selection of remedy, in a public meeting with interested and affected parties.

(e) Based on the results of the corrective measures assessment conducted under subparagraphs (5)(a) through (d) of this paragraph, the owner or operator must select a remedy that, at a minimum, meets the standards listed in this paragraph. The owner or operator must notify the Department, within 14 days of selecting a remedy, that a report describing the selected remedy has been placed in the operating record and how it meets the standards in this paragraph. Remedies must:

1. Be protective of human health and the environment;
2. Attain the groundwater protection standard as specified pursuant to subparagraphs (4)(h) or (i) of this rule;
3. Control the source(s) of releases so as to reduce or eliminate, to the maximum extent practicable, further releases of Appendix II constituents, or the alternative list approved in accordance with subparagraph (4)(b)2. of this rule, into the environment that may pose a threat to human health or the environment; and
4. Comply with standards for management of wastes as specified in subparagraph (m) of this paragraph.

(f) In selecting a remedy that meets the standards of subparagraph (e) of this paragraph, the owner or operator shall consider the following evaluation factors:

1. The long- and short-term effectiveness and protectiveness of the potential remedy(ies), along with the degree of certainty that the remedy will prove successful based on consideration of the following:
 - (i) Magnitude of reduction of existing risks;
 - (ii) Magnitude of residual risks in terms of likelihood of further releases due to waste remaining following implementation of a remedy;
 - (iii) The type and degree of long-term management required, including monitoring, operation, and maintenance;
 - (iv) Short-term risks that might be posed to the community, workers, or the environment during implementation of such a remedy, including potential threats to human health and the environment associated with excavation, transportation, and redisposal or containment;
 - (v) Time until full protection is achieved;
 - (vi) Potential for exposure of humans and environmental receptors to remaining wastes, considering the potential threat to human health and the environment associated with excavation, transportation, redisposal, or containment;

(vii) Long-term reliability of the engineering and institutional controls;
and

(viii) Potential need for replacement of the remedy.

2. The effectiveness of the remedy in controlling the source to reduce further releases based on consideration of the following factors:

(i) The extent to which containment practices will reduce further releases;

(ii) The extent to which treatment technologies may be used.

3. The ease or difficulty of implementing a potential remedy(ies) based on consideration of the following types of factors:

(i) Degree of difficulty associated with constructing the technology;

(ii) Expected operational reliability of the technologies;

(iii) Need to coordinate with and obtain necessary approvals and permits from other agencies;

(iv) Availability of necessary equipment and specialists; and

(v) Available capacity and location of needed treatment, storage, and disposal services.

4. Practicable capability of the owner or operator, including a consideration of the technical and economic capability.

5. The degree to which community concerns are addressed by a potential remedy(ies).

(g) The owner or operator shall specify as part of the selected remedy a schedule(s) for initiating and completing remedial activities. Such a schedule must require the initiation of remedial activities within a reasonable period of time taking into consideration the factors set forth in this paragraph. The owner or operator must consider the following factors in determining the schedule of remedial activities:

1. Extent and nature of contamination;

2. Practical capabilities of remedial technologies in achieving compliance with groundwater protection standards established under subparagraphs (4)(h) or (i) of this rule and other objectives of the remedy;

3. Availability of treatment or disposal capacity for wastes managed during implementation of the remedy;

4. Desirability of utilizing technologies that are not currently available, but which may offer significant advantages over already available technologies in terms of effectiveness, reliability, safety, or ability to achieve remedial objectives;

5. Potential risks to human health and the environment from exposure to contamination prior to completion of the remedy;

6. Resource value of the aquifer including:

(i) Current and future uses;

(ii) Proximity and withdrawal rate of users;

(iii) Groundwater quantity and quality;

(iv) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(v) The hydrogeologic characteristic of the facility and surrounding land;

(vi) Groundwater removal and treatment costs; and

(vii) The cost and availability of alternative water supplies.

7. Practicable capability of the owner or operator.

8. Other relevant factors.

(h) The Department may determine that remediation of a release of an Appendix II constituent, or a constituent in the alternative list approved in accordance with subparagraph (4)(b)2. of this rule, from a LF unit is not necessary if the owner or operator demonstrates to the Department that:

1. The groundwater is additionally contaminated by substances that have originated from a source other than a LF unit and those substances are present in concentrations such that cleanup of the release from the LF unit would provide no significant reduction in risk to actual or potential receptors; or

2. The constituent(s) is present in groundwater that:

(i) Is not currently or reasonably expected to be a source of drinking water; and

(ii) Is not hydraulically connected with waters to which the hazardous constituents are migrating or are likely to migrate in a concentration(s) that would exceed the groundwater protection standards established under subparagraphs (4)(h) or (i) of this rule; or

3. Remediation of the release(s) is technically impracticable; or

4. Remediation results in unacceptable cross-media impacts.

(i) A determination by the Department pursuant to subparagraph (h) of this paragraph shall not affect the authority of the State to require the owner or operator to undertake source control measures or other measures that may be necessary to eliminate or minimize further releases to the groundwater, to prevent exposure to the groundwater, or to remediate the groundwater to concentrations that are technically practicable and significantly reduce threats to human health or the environment.

(j) Based on the schedule established under subparagraph (g) of this paragraph for initiation and completion of remedial activities the owner/operator must:

1. Establish and implement a corrective action groundwater monitoring program that:

(i) At a minimum, meets the requirements of an assessment monitoring program under subparagraphs (4)(a) through (j) of this rule;

(ii) Indicates the effectiveness of the corrective action remedy; and

(iii) Demonstrates compliance with groundwater protection standards pursuant to subparagraph (n) of this paragraph.

2. Implement the corrective action remedy selected under subparagraphs (e) through (i) of this paragraph; and

3. Take any interim measures necessary to ensure the protection of human health and the environment. Interim measures should, to the greatest extent practicable, be consistent with the objectives of and contribute to the performance of any remedy that may be required pursuant to subparagraphs (e) through (i) of this paragraph. The following factors must be considered by an owner or operator in determining whether interim measures are necessary:

(i) Time required to develop and implement a final remedy;

(ii) Actual or potential exposure of nearby populations or environmental receptors to hazardous constituents;

(iii) Actual or potential contamination of drinking water supplies or sensitive ecosystems;

(iv) Further degradation of the groundwater that may occur if remedial action is not initiated expeditiously;

(v) Weather conditions that may cause hazardous constituents to migrate or be released;

(vi) Risks of fire or explosion, or potential for exposure to hazardous constituents as a result of an accident or failure of a container or handling system; and

(vii) Other situations that may pose threats to human health and the environment.

(k) An owner or operator may determine, based on information developed after implementation of the remedy has begun or other information, that compliance with requirements of subparagraph (e) of this paragraph are not being achieved through the remedy selected. In such cases, the owner or operator must implement other methods or techniques that could practicably achieve compliance with the requirements, unless the owner or operator makes the determination under subparagraph (l) of this paragraph.

(l) If the owner or operator determines that compliance with requirements under subparagraph (e) of this paragraph cannot be practically achieved with any currently available methods, the owner or operator must:

1. Obtain certification of a qualified groundwater scientist or approval by the Department that compliance with requirements under subparagraph (e) of this paragraph cannot be practically achieved with any currently available methods;

2. Implement alternate measures to control exposure of humans or the environment to residual contamination, as necessary to protect human health and the environment; and

3. Implement alternate measures for control of the sources of contamination, or for removal or decontamination of equipment, units, devices, or structures that are:

(i) Technically practicable; and

(ii) Consistent with the overall objective of the remedy.

4. Notify the Department within 14 days that a report justifying the alternative measures prior to implementing the alternative measures has been placed in the operating record.

(m) All solid wastes that are managed pursuant to a remedy required under subparagraphs (e) through (i) of this paragraph, or an interim measure required under subparagraph (j)3. of this paragraph, shall be managed in a manner:

1. That is protective of human health and the environment; and

2. That complies with applicable RCRA requirements.

(n) Remedies selected pursuant to subparagraphs (e) through (i) of this paragraph shall be considered complete when:

1. The owner or operator complies with the groundwater protection standards established under subparagraphs (4)(h) or (i) of this rule at all points within the plume of contamination that lie beyond the groundwater monitoring well system established under subparagraph (3)(a) of this rule.

2. Compliance with the groundwater protection standards established under subparagraphs (4)(h) or (i) of this rule has been achieved by demonstrating that concentrations of Appendix II constituents, or the alternative list approved in accordance with subparagraph (4)(b)2. of this rule, have not exceeded the groundwater protection standard(s) for a period of three consecutive years using the statistical procedures and performance standards in subparagraphs (4)(l) and (m) of this rule. The Department may specify an alternative length of time during which the owner or operator must demonstrate that concentrations of Appendix II constituents, or the alternative list approved in accordance with subparagraph (4)(b)2. of this rule, have not exceeded the groundwater protection standard(s) taking into consideration:

(i) Extent and concentration of the release(s);

(ii) Behavior characteristics of the hazardous constituents in the groundwater;

(iii) Accuracy of monitoring or modeling techniques, including any seasonal, meteorological, or other environmental variabilities that may affect the accuracy; and

(iv) Characteristics of the groundwater.

3. All actions required to complete the remedy have been satisfied.

(o) Upon completion of the remedy, the owner or operator must notify the Department within 14 days that a certification that the remedy has been completed in compliance with the requirements of subparagraph (n) of this paragraph has been placed in the operating record. The certification must be signed by the owner or operator and by a qualified groundwater scientist or approved by the Department.

(p) When, upon completion of the certification, the owner or operator determines that the corrective action remedy has been completed in accordance with the requirements under subparagraph (n) of this paragraph, the owner or operator shall be released from the requirements for financial assurance for corrective action under 335-13-4-.28(4).

Author: Russell A. Kelly, Heather M. Jones.

Statutory Authority: Code of Alabama 1975, §§ 22-27-3, 22-27-4, 22-27-7.

History: Effective: November 2, 1993. **Amended:** Effective: July 26, 1996.

Amended: Filed: April 24, 2018; Effective: June 8, 2018; **Amended:** Filed: June 25, 2019; Effective: August 9, 2019; **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

335-13-5-.01 Disposal Permits. ~~All~~ ~~S~~solid waste management subject to this Division shall take place in a ~~be disposed of in a landfill~~ unit(s) permitted by the Department. Rules 335-13-5-.02 through 335-13-5-.07 establish the minimum requirements and procedures for obtaining a solid waste ~~disposal facility~~ landfill permit, composting facility permit or CCR facility permit for existing and proposed facilities. The technical standards used to determine the requirements of a permit are set out in chapter 335-13-4 for landfills, 335-13-14 for composting facilities and 335-13-15 for CCR units.

Author: Russell A. Kelly, Heather M. Jones.

Statutory Authority: Code of Alabama 1975, §§ 22-22A-5, 22-27-3, 22-27-5, 22-27-7.

History: November 18, 1981. **Amended:** Effective: July 21, 1988; **Amended:** Effective: November 2, 1993; **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

335-13-5-.02 Permit Application. Any person who requires a permit pursuant to this Division shall complete, sign, and submit to the Department an application for each permit required under 335-13-5-.01.

~~Existing and proposed landfill units shall obtain permits to construct and/or operate in accordance with the following:~~

(1) Application Requirements.

(a) Solid Waste Landfills. Landfill units proposed after the effective date of this Division shall obtain permits to construct and/or operate by submitting a permit application consisting of the following in order to request a permit:

~~Landfill units proposed after the effective date of this Division shall submit the following in order to request a permit:~~

~~(a)1.~~ A completed application form designated by the Department, with applicable fees;

~~(b)2.~~ Documentation of host government approval, as provided in the Code of Alabama 1975, § 22-27-48 and 48.1;

~~(c)3.~~ Facility design plans and operational procedures in accordance with Permit Application Procedures for Solid Waste Disposal Facilities as prepared by the Department; ~~and~~

~~(d)4.~~ Technical data and reports to comply with 335-13-4-.01, 335-13-4-.11 through 335-13-4-.24 and this Division; and

~~(e)5.~~ All technical reports, plans and specifications, plats, geological and hydrological reports required by this Division, prepared under the following:

~~(i)1.~~ Plans, specifications, operational procedures, letters of final construction certification and other technical data, except as provided in 335-13-5-.02(1)(~~ea~~)~~5~~.~~(ii)2.~~ and ~~3~~(~~iii~~) for the construction and operation of a facility shall be prepared by ~~a~~ professional engineer. The seal or signature and registration number of the design engineer shall be affixed to the plans, specifications and reports.

~~(ii)2.~~ Reports, letters of certification and other documents and technical data concerning the siting standards of 335-13-4-.01 shall be prepared by a person with technical expertise in the field of concern.

~~(iii)3.~~ Legal property descriptions and survey plats shall be prepared by a land surveyor with the seal or signature and registration number of the land surveyor affixed.

~~(f)6.~~ The name and mailing address of all property owners whose property, per county tax records, is adjacent to the proposed site shall be submitted as part of a landfill unit's permit application.

~~(g)7.~~ ~~In addition to the requirements listed in (a) through (f) above~~ The Department may waive certain requirements of ~~(a)3.(e)~~ and ~~(d)4.~~ for those landfill units that will receive for disposal only construction and demolition type waste. A permit application for a C/DLF ~~will~~ shall be submitted on a permit application form ~~developed~~ designated by the Department, which shall specify the minimum requirements for a complete application. The C/DLF permit application shall also include statements signed by ~~an~~ professional engineer and a representative of the facility owner/operator certifying that the information being submitted is accurate and correct. The submittal of false or inaccurate information shall result in the C/DLF permit application being suspended or denied.

(b) Composting Facilities.

1. The owner or operator of each composting facility in existence on April 3, 2012, shall file an application, including applicable fees, for a permit with the Department no later than June 1, 2012. The owner or operator of each new composting facility desiring to begin operation after April 3, 2012, shall obtain a permit prior to commencing composting activities.

2. Each owner or operator of a composting facility shall submit a permit application prepared by a professional engineer to the Department utilizing a form designated by the Department. In addition to the designated application form, the following information shall be submitted as part of the permit application:

(i) Documentation of host government approval as provided in the Code of Alabama 1975, § 22-27-48 and 48.1.

(ii) List of feed stocks to be accepted at the composting facility.

(iii) The operational capacity of the composting facility.

(iv) Legal property description and plat prepared by a land surveyor with the seal or signature and registration number of the land surveyor affixed.

(v) Composting facility design plans and operational plans in accordance with 335-13-14. Design plans and operational plans shall be prepared by a professional engineer. The seal or signature and registration number of the design engineer shall be affixed to the plans.

(vi) A process flow diagram of the entire facility.

(vii) A fire prevention plan.

(viii) A closure plan that at a minimum includes:

(I) Information detailing the removal of all remaining solid waste material from the site as required by rule 335-13-14-.09;

(II) A detailed written estimate, in current dollars, of the cost required to complete closure of the composting facility in accordance with rule 335-13-14-.09; and

(III) A demonstration by the applicant of the ability to provide adequate financial coverage equal to the amount required in rule 335-13-5-.02(1)(b)2.(viii)(II) for the closure of the composting facility.

(ix) The names and mailing address of all property owners whose properties, per county tax records, are adjacent to the proposed site.

(c) CCR Facilities. All solid waste management of CCR generated from the combustion of coal at electrical utilities and independent power producers shall take place in a unit permitted by the Department. New and existing CCR landfills and surface impoundments shall obtain permits for construction, operation, closure and/or post-closure in accordance with the following:

1. Existing CCR Surface Impoundments. Except as provided in 335-13-5-.02(1)(c)3., for existing CCR surface impoundments, the owner or operator shall submit the following in order to request a permit:

(i) A completed application form designated by the Department, with applicable fees.

(ii) Boundary plat and legal property description prepared, signed, and sealed by a land surveyor of the boundary of the facility and disposal area of the CCR unit.

(iii) Technical data and reports documenting compliance with the following location requirements:

(I) Five foot separation of the base of the CCR unit and the uppermost aquifer as specified in 335-13-15-.03(1);

(II) Wetland and endangered species requirements under 335-13-15-.03(2);

(III) Fault area requirements under 335-13-15-.03(3);

(IV) Seismic impact zones requirements under 335-13-15-.03(4);

(V) Unstable area requirements under 335-13-15-.03(5); and

(VI) The location requirements under 335-13-15-.01(2)(b) and 335-13-15-.03(6).

(iv) Detailed presentation of geological and hydrogeological units within the disposal site, with typical sections of disposal method and plan and profile sheets on all areas or trenches.

(v) Technical report of the determination of the liner design and type as required by 335-13-15-.04(2).

(vi) Technical report for the hazard potential classification as outlined in 335-13-15-.04(4)(a)2. and the Emergency Action Plan (EAP), if necessary, developed under 335-13-15-.04(4)(a)3.

(vii) For existing CCR surface impoundments that have a height of five feet or more and a storage volume of 20 acre-feet or more, or an existing surface impoundment with a height of 20 feet or more, the application shall include the following:

(I) All the information required by 335-13-15-.04(4)(c)1.(i) through (xii).

(II) Results of the structural stability assessment as required by 335-13-15-.04(4)(d).

(III) Results of the safety factor assessment as required by 335-13-15-.04(4)(e).

(viii) Sufficient control points on-site to provide for accurate horizontal and vertical control for facility construction, operation and closure and post-closure.

(ix) Topographical maps at contour intervals of not more than five feet for the existing ground surface elevation, initial disposal area elevation, and final disposal area elevation. The maps shall also show buffer zones.

(x) Quality assurance/quality control (QA/QC) plan for all components of the final cover system.

(xi) An operation plan that includes at a minimum:

(I) A CCR fugitive dust control plan developed in accordance with 335-13-15-.05(1).

(II) An inflow design flood control system plan developed in accordance with 335-13-15-.05(3).

(III) All technical reports, plans and specifications documenting compliance with the requirements of 335-13-15-.05(4) and 335-13-15-.05(6).

(IV) A detailed description of the groundwater monitoring and analysis program developed in accordance with 335-13-15-.06.

(V) Procedures for compliance with recordkeeping, notification and internet posting as required under 335-13-15-.08.

(VI) Procedures for updating all plans and assessments periodically as required by 335-13-15.

(xii) The written closure and post-closure or retrofit plan developed in accordance with 335-13-15-.07.

(xiii) Any additional information that may be required by the Department.

(xiv) The name and mailing address of all property owners whose property, per county tax records, is adjacent to the proposed site.

(xv) Plans, specifications, operational procedures, letters of final construction certification and other technical data required as part of the application, except as provided in 335-13-5-.02(1)(c)1.(ii) and (xiv), shall be certified by a professional engineer. The seal or signature and registration number of the design engineer shall be affixed to the plans, specifications and reports.

2. New CCR surface impoundments and any lateral expansion of a CCR surface impoundment. For new CCR surface impoundments and any lateral expansion of a CCR surface impoundment, the owner or operator shall submit the following in order to request a permit:

(i) Except for the requirements of 335-13-5-.02(1)(c)1.(v), (vi), and (vii), the requirements for an existing CCR surface impoundment in 335-13-5-.02(1)(c)1.

(ii) Technical report for the hazard potential classification as outlined in 335-13-15-.04(5)(a)2. and the Emergency Action Plan (EAP), if necessary, under 335-13-15-.04(5)(a)3.

(iii) For new CCR surface impoundments that have a height of five feet or more and a storage volume of 20 acre-feet or more, or a surface impoundment with a height of 20 feet or more, the application shall include the following:

(I) All the information required by 335-13-15-.04(5)(c)1.(i) through (xii).

(II) Results of the structural stability assessment as required by 335-13-15-.04(5)(d).

(III) Results of the safety factor assessment as required by 335-13-15-.04(5)(e).

(iv) Design for the liner as required by 335-13-15-.04(3).

(v) Quality assurance/quality control (QA/QC) plan for all components of the liner.

(vi) Plans, specifications, operational procedures, letters of final construction certification and other technical data required as part of the application, except as provided in 335-13-5-.02(1)(c)1.(ii) and (xiv), shall be certified by a professional engineer. The seal or signature and registration number of the design engineer shall be affixed to the plans, specifications and reports.

3. For existing CCR surface impoundments that have initiated closure or are otherwise subject to the closure requirements of 335-13-15-.07(2), the owner or operator shall submit all the information as required for an existing CCR surface impoundment in 335-13-5-.02(1)(c)1., except for the requirements of 335-13-5-.02(1)(c)1.(iii), (iv) and (v), to request a closure or post-closure permit or a permit for such operations as may be authorized by 335-13-15-.07(4).

~~(h)4. Existing CCR Landfills. In addition to the requirements listed in (a) through (f) above, a~~For existing CCR landfills, the owner or operator shall ~~submit permit application for an existing CCR landfill shall also include~~ the following to request a permit:

(i) Except for the requirements of 335-13-5-.02(1)(c)1.(iii), (v), (vi), (vii) and (xi)(II) and (III), the requirements for an existing CCR surface impoundment in 335-13-5-.02(1)(c)1.

~~(ii)1.~~ Technical data and reports documenting compliance with the following:

~~(I) Unstable area requirements in 335-13-15-.03(5);~~

~~(II) The location requirements under 335-13-15-.01(2)(b) and 335-13-15-.03(6);~~

~~(III) Cover requirements under 335-13-15-.05(7)(a);~~

~~(IV) Access control requirements of 335-13-15-.05(6)(e);~~

~~(iii) An operation plan that includes, at a minimum:~~

~~2-(I)~~ A run-on and run-off control system plan developed in accordance with 335-13-15-.05(2)(c), which should include existing and proposed surface drainage patterns and control structures designed to handle run-on and run-off.

(II) Details of plans for permanent all weather access roads.

(III) All technical reports, plans and specifications documenting compliance with the operational requirements of 335-13-15-.05(1)(d), 335-13-15-.05(5), (6) and (7).

~~3. A detailed description of the groundwater monitoring and analysis program developed in accordance with 335-13-15-.06.~~

~~4. Procedures for complying with recordkeeping and notification as required under 335-13-15-.08.~~

~~5. Procedures for updating all plans and assessments periodically as required by ADEM Admin. Code 335-13-15.~~

~~6. Any additional information that may be required by the Department.~~

~~5.(i)~~ New CCR Landfills and any lateral expansion of a CCR Landfill. In addition to the requirements listed in 335-13-5-.02(1)(c)4.(a) through (f) and (h) above, applications for new CCR landfills and any lateral expansion of a CCR landfill shall include the following in order to request a permit:

~~(i)1.~~ Technical data and reports documenting compliance with the following location requirements:

~~(i)~~ Five foot separation of the base of the CCR unit above the uppermost aquifer as specified in 335-13-15-.03(1).

~~(ii)~~ Wetland and endangered species requirements under 335-13-15-.03(2).

~~(iii)~~ Fault area requirements under 335-13-15-.03(3).

~~(IViv)~~ Seismic impact zones under 335-13-15-.03(4).

~~(ii)2.~~ Design of the liner and leachate collection and removal system as required by 335-13-15-.04(1), including a quality assurance/quality control (QA/QC) plan for all components of the liner, leachate collection, and final cover system.

(d) In addition to the requirements listed in 335-13-5-.02(1), the permit application shall also include statements signed by a professional engineer and a representative of the facility owner/operator certifying that the information being submitted is accurate and correct. The submittal of false or inaccurate information shall result in the permit application being suspended or denied.

(2) Permit Renewal Application Requirements.

(a) Permittees requesting to renew an existing permit must do so by submitting a permit renewal application consisting of the following:

1. A completed application form designated by the Department, with applicable fees;

2. Updated technical data, plans or reports, where applicable, as required under the following:

(i) 335-13-5-.02(1)(a)3. and/or 4. for landfills;

(ii) 335-13-5-.02(1)(b)2. (ii) through (viii) for composting facilities; and

(iii) 335-13-5-.02(1)(c) for CCR units.

3. The name and mailing address of all property owners whose property, per county tax records, is adjacent to the site shall be submitted as part of a renewal application.

4. All renewal applications and supporting documentation shall be prepared in accordance with 335-13-5-.02(1)(d).

(23) Permit Duration. ~~Solid waste disposal p~~Permits obtained in compliance with this Division shall be valid for the design life of the facility or as otherwise determined by the Department, but no longer than a period of ten years. Permits, however, are subject to revocation under 335-13-5-.05 of this Division.

(43) Filing Deadline. ~~Applications Request~~ for an extension, renewal, or a new permit for any landfill unit facility, -composting facility or CCR facility shall be filed with the Department by the ~~operating agency owner or operator~~ at least 180 days prior to the expiration date for existing permits or the proposed construction date for new facilities. Applications for an initial permit for CCR facilities shall be filed with the Department within 180 after the original effective date of 335-13-15.

(54) Modifications. Prior to any change listed in the permitted service area, increasing the volume of waste received or changing the design or operating procedure as described in 335-13-5-.06(1) and (2) and the current permit, the permittee shall request a modification of the permit as described in 335-13-5-.06(3). A request for modification described in 335-13-5-.06(1) and (2) must be filed with the Department at least ~~90~~120 days prior to the anticipated change and shall receive approval from the Department prior to the implementation of the proposed change.

(65) Effect of non-compliance.

(a) As determined by the Director, substantial non-compliance with Department regulations or permits at any facility owned or operated by the applicant, including any facility for which the pending permit application is requested, will be grounds for denial of the application, or alternatively, for suspension of further consideration of the application until such non-compliance is corrected.

(b) In addition to the foregoing, the Director may deny a permit application if:

1. The Director determines that a permit could not be issued that would result in compliance with applicable solid waste standards; or
2. The applicant could not comply with the permit as issued.

Author: Russell A. Kelly, Eric L. Sanderson, S. Scott Story, Heather M. Jones.
Statutory Authority: Code of Alabama 1975, §§ 22-27-3, 22-27-5, 22-27-7, and 22-27-48 and 48.1.
History: Effective: November 18, 1981. **Amended:** Effective: March 31, 1988 (Emergency Regulations). **Amended:** Effective: July 21, 1988. **Amended:** Effective: October 2, 1990. **Amended:** Effective: November 2, 1993. **Amended:** Effective: July 26, 1996. **Amended:** Filed: April 24, 2018; Effective: June 8, 2018. **Amended:** Filed: June 25, 2019; Effective: August 9, 2019; **Amended:** Filed: December 31, 2020; Effective: February 15, 2021; **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

335-13-5-.03 Public Notice.

(1) Notice Requirements.

(a) The Department shall provide notice and an opportunity ~~for a to comment and request a public hearing and comment~~ on any solid waste landfill unit, composting facility or CCR facility –permit initial issuance, renewal, a modification listed in 335-13-5-.06(1) or (2) (b) to the facility permit, or if otherwise determined necessary to meet the requirements of this Division.

(b) The following procedures shall be observed.:

1. The Department shall send a copy of the notice to persons on a mailing list developed by:

(i) Including those who request in writing to be on the list;

(ii) Notifying the public of the opportunity to be put on the mailing list through the Department's website, periodic publication in the public press and in such publications as regional and state funded newsletters, environmental bulletins, or state law journals (the Director may update the mailing list from time to time by requesting written indication of continued interest from those listed and may delete from the list the name of any person who fails to respond to such a request);

~~2.~~ 12. The Department shall notify interested and potentially interested persons of the proposed permit action for a solid waste landfill, composting or CCR unit facility by ~~publishing~~ posting a notice to the Department's website. The draft permit action shall be posted on the website for the duration of the public comment period.~~in a newspaper of general circulation in the area.~~

~~(i)3.~~ The notice shall be given not less than 35 days prior to the proposed issuance of a permit action.

~~(ii)4.~~ The notice shall contain the specific type and nature of the solid waste landfill, composting or CCR unit facility, the type of waste to be disposed or accepted, as applicable, the ~~person or agency owner or operator~~ requesting the permit action, and the descriptive location of the solid waste landfill, composting or CCR unit facility, address and telephone number of the Department, and how the public may submit comments and that interested persons may request a public hearing on the proposed landfill unit permit action.

25. The Department shall send by certified mail, a written copy of the public notice to landowners adjacent to the subject solid waste landfill, composting or CCR unit facility at the address as indicated on county tax

records and provided by the applicant as part of the permit application. The list and addresses of adjacent ~~land~~ owners, as provided in the permit application, shall be verified and/or updated by the applicant and such documentation shall be provided to the Department within 90 days prior to the public notice date. Documentation that notice was sent shall include copies of the signed receipts of certified mail delivery or a copy of any returned certified mail item, that is refused or otherwise undeliverable.

(2) Departmental Action. After the comment period closes, the Department shall review, consider and respond to all public comments received by the close of the comment period and take one of the following actions ~~after the hearing~~:

(a) Deny the permitting action, stating in writing the reasons for denial and informing the person requesting the permitting action of appeal procedures in chapter 335-2-1;

(b) Issue the permitting action if the application complies with this Division; or

(c) Require additional information, or additional elements of design for the facility. If required, the applicant must specify procedures for inclusion into the permit of any additional information prior to issuance of the permit action.

Author: Russell A. Kelly; S. Scott Story; Heather M. Jones.

Statutory Authority: Code of Alabama 1975, §§ 22-22A-5, and 22-27-7.

History: Effective: November 18, 1981. **Amended:** Effective: July 21, 1988.

Amended: Effective: November 2, 1993. **Amended:** Effective: July 26, 1996.

Amended: Filed: April 24, 2018; Effective: June 8, 2018. **Amended:** Filed: June 25, 2019; Effective: August 9, 2019; **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

335-13-5-.04 Public Hearing.

(1) Authorization. The Department shall authorize a public hearing at its discretion, or upon receipt of significant number of technical requests as provided in 335-13-5-.04(2).

(2) Procedures.

(a) Requests for public hearings shall be submitted in writing to the Department ~~by interested persons.~~

1. Frivolous or nontechnical requests shall be denied by the Department.

2. Requests for public hearings must be submitted within 35 days after the publication of the public notice and must contain the following:

(i) The name, address and telephone number of the person requesting the hearing.

(ii) A brief statement of the person's interest and the information the person wishes to submit.

(iii) The person's signature, if an individual, or the signature of a responsible officer of an organization or legal entity.

(b) When a hearing has been authorized, the Department shall appoint a hearing officer to conduct the hearing and shall establish a time, date, and location for the hearing. The location for the hearing shall comply with the requirements of the Americans with Disabilities Act.

(c) The Department shall give notice of the public hearing in the manner set forth in 335-13-5-.03(1), and also to the persons requesting the hearing in 335-13-5-.04(2). The notice shall be given not less than 35 days prior to the time of the public hearing and shall include:

1. A summary of the proposed permitting action.

2. The place, time, and date of the hearing.

3. The name, address, and telephone number of an office at which interested persons may receive further information.

(3) Departmental Action. After the public hearing and close of the comment period, ~~the~~ the Department shall review, consider, and respond to comments received by the close of the comment period and take one of the following actions ~~after the hearing:~~

(a) Deny the permitting action, stating in writing the reasons for denial and inform the person requesting the permitting action of appeal procedures in chapter 335-2-1335-13-1-07;

(b) Issue the permitting action if the application complies with this Division; or

(c) Require additional information, or additional elements of design for the facility. If required, the applicant must specify procedures for inclusion into the permit of any additional information prior to issuance of the permit action.

Author: Russell A. Kelly; S. Scott Story; Heather M. Jones.

Statutory Authority: Code of Alabama 1975, §§ 22-22A-5 and 22-27-7.

History: Effective: November 18, 1981. **Amended:** Effective: July 21, 1988.

Amended: Effective: November 2, 1993. **Amended:** Effective: July 26, 1996.

Amended: Filed: April 24, 2018; Effective: June 8, 2018; **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

335-13-5-.05 Permit Denial, Suspension or Revocation.

(1) Conditions. The Department may deny, suspend or revoke any operating permit if:

(a) The permittee is found to be in violation of any of the permit conditions;

(b) The permittee fails to perform the permitted activity in accordance with the approved permit application, operational plan/narrative or engineering drawings;

(c) The permittee fails to seek a modification of the permit as required by ~~the rules~~ 335-13-5-.06;

(d) An active solid waste landfill site stops receiving waste as specified in 335-13-4-.20(2)(f) for more than one year;

(e) An active composting facility stops accepting and processing raw material as specified by 335-13-14-.09(2);

(f) An active CCR facility stops receiving waste as specified by 335-13-15-.07(3)(e); or

(g) The design and/or operations creates a nuisance or is inconsistent with the Act or this Division.

(2) Written Notice. In the event of denial, suspension or revocation of an operating permit, the Department shall serve written notice of such action on the permittee and shall set forth in such notice the reason for such action.

(3) Closure. Upon revocation or suspension of the operating permit, or denial of the renewal of the permit, the permittee shall meet the closure requirements found in 335-13-4-.20 for solid waste landfill units, 335-13-14-.09 for composting facilities or 335-13-15-.07 for CCR units.

Author: Russell A. Kelly; S. Scott Story; Heather M. Jones.

Statutory Authority: Code of Alabama 1975, §§ 22-22A-5, 22-27-3, 22-27-5, and 22-27-7.

History: Effective: November 18, 1981. **Amended:** Effective: March 31, 1988 (Emergency Regulations). **Amended:** Effective: July 21, 1988. **Amended:** Effective: October 2, 1990. **Amended:** Effective: November 2, 1993. **Amended:** Effective: July 26, 1996. **Amended:** Filed: April 24, 2018. Effective: June 8, 2018; **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

335-13-5-.06 Permit Modification. The Department may modify any permit after receiving a satisfactory request for modification application that is found in compliance with ADEM rules and regulations. Permit modifications shall be requested in writing utilizing application forms designated by the Department (ADEM Form 439 for MSWLFs, ILFs and CCR facilities, ADEM Form 305 for C/DLFs or ADEM Form 018 for composting facilities) when the permittee proposes to modify its operation in any of the ways listed in 335-13-5-.06(1) or (2).

(1) Major Modifications.

(a) ~~Permit modification shall be requested utilizing forms designated by the Department when the permittee proposes to modify its operation in any of the following ways~~Major modifications are limited to the following actions:

1. There is any change in the permitted service area. The Director may temporarily ~~or on a one time basis~~ waive permit modification requirements related to service area on a case-by-case basis, ~~for special waste or other solid waste~~ if it is demonstrated that a disposal alternative is needed immediately to protect human health or the environment.

2. Convert an industrial landfill (ILF) or construction/demolition landfill (C/DLF) to a municipal solid waste landfill (MSWLF) or convert a construction/demolition landfill (C/DLF) to an industrial landfill (ILF).

3. Addition of a liner and/or leachate collection system or any design change in the existing permitted liner and/or leachate collection system.

4. Addition of acreage to the facility boundary or addition of disposal acreage inside the permitted perimeter where design plans have not been previously submitted.

(b) Modifications required under this paragraph are subject to the provisions of rules 335-13-5-.03 and 335-13-5-.04, which require a public notice and may require a public hearing.

(2) Minor Modifications.

(a) Except as provided in 335-13-5-.06(2)(b), minor modifications are limited to the following actions~~A permit modification shall be required, utilizing forms designated by the Department, when the permittee proposes to modify its operations or design in any of the following ways:~~

1. ~~Addition of a waste stream to a ILF or C/DLF.~~Correction of typographical errors and informational changes as requested by the permittee.

~~2. Addition or relocation of a monitoring well. Changes to remove permit conditions to conform with revised Department guidance or regulations (i.e., permit conditions that are no longer applicable because the standards upon which they were based are no longer applicable to the facility).~~

~~3. Changes, by the permittee, to approved applicable plans, as included in the permit application, that increase the frequency, duration or stringency of the actions covered by the applicable plan(s).~~

~~4. Addition of a new groundwater monitoring well or replacement of an existing monitoring well (i.e., one that has been damaged or rendered inoperable, as close as possible to the original location, and of similar design and depth).~~

~~5. Changes in the statistical analysis method (e.g. changing from interwell or intrawell analysis).~~

~~63. Changes in the stormwater conveyance system including, but not limited to, the Addition of a sedimentation basins.~~

~~74. Any change in the permitted final fill elevations. Changes in fill sequence.~~

~~5. The average daily volume of waste specified by the permit for a landfill unit is proposed to be exceeded, or is exceeded for two or more consecutive reporting quarters, by 20 percent, or 100 tons/day, whichever is less.~~

~~(i) The average daily volume of waste received at a landfill unit shall be calculated by dividing the total month's receipts by the total number of days in the reporting month.~~

~~(ii) Volumes received shall be reported to the Department in a format specified by the Department.~~

~~(b)~~

~~8. Modifications required by this paragraph 335-13-5-.06(2)(a) are not subject to the provisions of rules 335-13-5-.03 and 335-13-5-.04, and do not require public notice or a public hearing.~~

~~(b) Other Minor Modifications. Modifications not explicitly listed in 335-13-5-.06(1) or (2)(a), will be considered a minor modification that would be subject to the provisions of 335-13-5-.03 for public notice and may require a public hearing under 335-13-5-.04. Applicable actions include, but are not limited to, the following:~~

~~1. Addition of a waste stream to an ILF, C/DLF or CCR unit.~~

2. An increase in the average daily volume specified by the permit for a landfill or CCR unit. The Director may temporarily or on a one-time basis waive permit modification requirements related to an increase in the average daily volume on a case-by-case basis, if it is demonstrated that a disposal alternative is needed immediately to protect human health or the environment.

3. Addition of an alternative cover material for daily or weekly cover.

4. For landfill or CCR units undergoing corrective action, incorporation of approved final remedies into the permit, or any changes to the approved final remedy.

5. Any changes to the permitted final fill elevations.

6. Any change to the approved final closure method, as detailed in the closure plan submitted with the approved permit application.

(c) For any proposed change covered under 335-13-5-.06(2)(b), the permittee may request a determination by the Department that the modification application should be reviewed and approved as a minor modification under 335-13-5-.06(2)(a). To do so, the permittee must provide the Department with the necessary information to support the requested classification. In determining the appropriate classification for a specific modification, the Department shall consider:

1. The similarity of the modification to other modifications listed in 335-13-5-.06(2)(a); and

2. The criteria that the modification(s) apply only to changes that:

(i) Keep the permit current with routine changes to the facility or its operation; and

(ii) Do not substantially alter the permit conditions.

(3) Procedures. Permittee shall request a permit modification in accordance with the following procedures:

(a) Submit a request for modification to the Department at least 90~~120~~ days prior to the anticipated change.

(b) Identify each and every part of the permit or plans to be modified.

(c) Submit revised plans and narratives as required by the Department.

(d) For those modifications subject to the provisions of 335-13-5-.03 for public notice that may require a public hearing under 335-13-5-.04, the name and mailing address of all property owners whose property, per county

tax records, is adjacent to the site shall be submitted as part of the permit modification application.

(~~e~~) Receive approval from the Department prior to implementing the modification.

Author: Russell A. Kelly; S. Scott Story.

Statutory Authority: Code of Alabama 1975, §§ 22-22A-5, 22-27-3, 22-27-5, and 22-27-7.

History: Effective: November 2, 1993. **Amended:** Effective: July 26, 1996.

Amended: Filed: April 24, 2018; Effective: June 8, 2018; **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

335-13-5-.07 Transfer of Permit. Permits are not transferable except as follows:

(1) A notification must be submitted to and approved by the Department prior to any proposed transfer from one person or company to another or for the name change of any permitted facility.

(a) The notification must be submitted to the Department at least 30 days prior to the proposed transfer or name change.

(b) Information regarding the transfer or name change must be submitted on form(s) designated by the Department.

(2) [Reserved]

Author: Russell A. Kelly, Heather M. Jones.

Statutory Authority: Code of Alabama 1975, §§ 22-22-A-5, 22-27-7.

History: November 18, 1981. **Amended:** Effective: March 31, 1988 (Emergency Regulations); **Amended:** Effective: July 21, 1988; **Amended:** Effective: November 2, 1993; **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

335-13-8-.01 Variances. The Department may grant individual variances from the specific provisions of ~~the~~ Division 13 based upon the procedures of 335-13-8-.02 through 335-13-8-.05 whenever it is found by the Department, upon presentation of adequate proof, that ~~the requested variance non-compliance with Division 13~~ will not threaten the public health or unreasonably create environmental pollution. Specifically, variances may only be granted for those provisions of Division 13 that are in addition to or more stringent than analogous federal regulations. Variance requests will not be granted for provisions of Division 13 that are identical to a federal rule (i.e. those provisions that are not a state specific rule). Variances per se are not favored by the Department.

Author: Russell A. Kelly, S. Scott Story.

Statutory Authority: Code of Alabama 1975, § 22-27-7.

History: November 18, 1981; **Amended:** Effective: July 21, 1988; **Amended:** Effective: July 26, 1996; **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

335-13-8-.02 Petition for Variance.

(1) Applicability. Any person may request a variance from specific provisions of Division 13 by filing a Petition for Variance with the Department at least 120 days prior to the anticipated change and shall receive approval from the Department prior to the implementation of the proposed change.

(2) Petition Requirements. To enable the Department to rule on the Petition for Variance, the following information, where determined applicable by the Department, shall be included in the petition:

(a) A clear and complete statement of the precise extent of the relief sought including specific identification of the particular provisions of the regulations from which the variance is sought;

(b) An assessment, with supporting factual information, of the impact that the variance will impose on the public health and the environment in the affected area.

(c) Any additional information requested by the Department as necessary to evaluate the variance request.

(d) A concise factual statement of the reasons the petitioner believes that non-compliance with the particular provisions of Division 13 will not threaten the public health or unreasonably create environmental pollution.

(e) Applicable fees in accordance with Division 1.

(f) The name and mailing address of all property owners whose property, per county tax records, is adjacent to the proposed site shall be submitted as part of a Petition for Variance.

Author: Russell A. Kelly., S. Scott Story.

Statutory Authority: Code of Alabama 1975, § 22-27-7.

History: November 18, 1981; **Amended:** Effective: July 21, 1988; **Amended:** Effective: July 26, 1996. **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

335-13-8-.03 Extension of Prior or Existing Variance. A petition to extend a prior or existing variance granted by the Department shall be commenced by filing a Petition for Variance with the Department in accordance with the requirements of 335-13-8-.02.

(1) ~~For petitions to extend an existing variance, To the extent that the information required by 335-13-8-.02 has that was been included in the prior Petition for Variance for which extension is sought, a submission of that information shall be submitted, along with any additional information as necessary to update the existing Petition for Variance. required provided that the petition shall request the incorporation of the record, opinion and order in the prior proceeding into the new petition.~~

(2) A petition to extend a prior or existing variance shall be a new petition for Variance before the Department and shall be subject to all of the requirements of this Division except as provided in 335-13-8-.03(1).

Author: Russell A. Kelly; Heather M. Jones.

Statutory Authority: Code of Alabama 1975, § 22-27-7.

History: November 18, 1981; **Amended:** Effective: July 21, 1988; **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

335-13-8-.04 [Reserved]Department Action on Petitions for Variance. ~~On receipt of a Variance Petition the Department will authorize one of the following actions, as they shall determine:~~

~~(1) — The petition may be dismissed if the Department determines that it is not adequate under 335-13-8-.02.~~

~~(2) — The Department may grant the variance as petitioned or by imposing such conditions as the Division may require, including the establishment of schedules of compliance and monitoring requirements.~~

~~(3) The Department may deny the petition. If such a denial is made, the Department shall notify the petitioner in writing the reasons for denial and outline procedures for appeal.~~

Author: Russell A. Kelly.

Statutory Authority: Code of Alabama 1975, § 22-27-7.

History: November 18, 1981.

Amended: July 21, 1988; July 26, 1996.

335-13-8-.12 Public Notice.

(1) Notice Requirements.

(a) The Department shall provide notice and an opportunity to comment and request for a public hearing on Petition for Variance from a specific provision of this Division.

(b) The following procedures shall be observed:

1. The Department shall send a copy of the notice to persons on a mailing list developed by:

(i) Including those who request in writing to be on the list;

(ii) Notifying the public of the opportunity to be put on the mailing list through the Department's website, periodic publication in the public press and in such publications as regional and state funded newsletters, environmental bulletins, or state law journals (the Director may update the mailing list from time to time by requesting written indication of continued interest from those listed and may delete from the list the name of any person who fails to respond to such a request);

2. The Department shall notify interested and potentially interested persons of the Petition for Variance by posting a notice to the Department's website. The Petition for Variance shall be posted on the website for the duration of the public comment period.

3. The notice shall be given not less than 35 days prior to the proposed approval of the petition.

4. The notice shall contain the specific type and nature of the petition, the owner or operator requesting the petition, and the descriptive location of the subject facility or unit, address and telephone number of the Department, and how the public may submit comments and request a public hearing on the proposed petition.

5. The Department shall send by certified mail, a written copy of the public notice to landowners adjacent to the subject facility at the address as indicated on county tax records and provided by the applicant as part of the Petition for Variance. The list and addresses of adjacent land owners, as provided in the Petition for Variance, shall be verified and/or updated by the applicant and such documentation shall be provided to the Department within 90 days prior to the public notice date. Documentation that notice was sent shall include copies of the signed receipts of certified mail delivery or a copy of any returned certified mail item, that is refused or otherwise undeliverable.

(2) Departmental Action. After the comment period closes, the Department shall review, consider and respond to all public comments received by the close of the comment period and take one of the following actions:

(a) The petition may be dismissed if the Department determines that it is not adequate under 335-13-8-.02;

(b) The Department may grant the variance as petitioned or by imposing such conditions as the Division may require, including the establishment of schedules of compliance and monitoring requirements; or

(c) The Department may deny the petition. If such a denial is made, the Department shall notify the petitioner in writing the reasons for denial and outline procedures for appeal.

Author: Heather M. Jones.

Statutory Authority: Code of Alabama 1975, §§ 22-22A-5, and 22-27-7.

History: Filed: October 12, 2021; Effective: December 13, 2021.

335-13-8-.13 Public Hearing.

(1) Authorization. The Department shall authorize a public hearing at its discretion, or upon receipt of significant number of technical requests as provided in 335-13-8-.13(2).

(2) Procedures.

(a) Requests for public hearings shall be submitted in writing to the Department.

1. Frivolous or nontechnical requests shall be denied by the Department.

2. Requests for public hearings must be submitted within 35 days after the publication of the public notice and must contain the following:

(i) The name, address and telephone number of the person requesting the hearing.

(ii) A brief statement of the person's interest and the information the person wishes to submit.

(iii) The person's signature, if an individual, or the signature of a responsible officer of an organization or legal entity.

(b) When a hearing has been authorized, the Department shall appoint a hearing officer to conduct the hearing and shall establish a time, date, and location for the hearing. The location for the hearing shall comply with the requirements of the Americans with Disabilities Act.

(c) The Department shall give notice of the public hearing in the manner set forth in 335-13-8-.13(1), and also to the persons requesting the hearing in 335-13-8-.13(2). The notice shall be given not less than 35 days prior to the time of the public hearing and shall include:

1. A summary of the Petition for Variance.

2. The place, time, and date of the hearing.

3. The name, address, and telephone number of an office at which interested persons may receive further information.

(3) Departmental Action. After the public hearing and close of the comment period, the Department shall review, consider and respond to comments received by the close of the comment period and take one of the following actions:

(a) The petition may be dismissed if the Department determines that it is not adequate under 335-13-8-.02;

(b) The Department may grant the variance as petitioned or by imposing such conditions as the Division may require, including the establishment of schedules of compliance and monitoring requirements; or

(c) The Department may deny the petition. If such a denial is made, the Department shall notify the petitioner in writing the reasons for denial and outline procedures for appeal.

Author: Heather M. Jones.

Statutory Authority: Code of Alabama 1975, §§ 22-22A-5 and 22-27-7.

History: Filed: October 12, 2021; Effective: December 13, 2021.

335-13-14-.01 Purpose. The purpose of ~~this~~these regulations is to establish procedures to encourage and regulate the production and use of compost made from solid waste within the State of Alabama.

Author: Phillip D. Davis, S. Scott Story, Jonathan E. Crosby.

Statutory Authority: Code of Alabama 1975, §§ 22-27-9 and 22-27-12.

History: Effective: April 3, 2012. **Amended:** Filed: April 24, 2018; Effective: June 8, 2018. **Amended: Proposed: July 20, 2021.**

335-13-14-.03 Applicability.

(1) The following requirements shall be for operating and maintaining an acceptable "Composting Facility" as defined by rule 335-13-14-.02.

(2) No person may receive, store or process solid waste for composting or operate a composting facility without being properly permitted by the Department, except as described by rule 335-13-14-.03(3). ADEM Admin. Code 335-13-5 outlines the procedures for obtaining a permit for new and existing composting facilities. Any person who operates a composting facility, without having applied for and been issued a permit from the Department shall be considered to be operating an unpermitted solid waste facility and shall be subject to enforcement action in accordance with this Division.~~No person may operate a composting facility without a permit from the Department, except as defined by rule 335-13-14-.03(3).~~

(3) Exceptions.

(a) Composting of agricultural waste as defined and regulated by rule 335-6-7-.02 ~~are regulated by the requirements of that chapter.~~

(b) On-site composting as defined by rule 335-13-14-.02. However, if any on-site compost is used for revenue generation, then the generator is not exempt and shall comply with the requirements of this chapter.

(c) Facilities that receive solid waste and generate compost for use solely at their site.

(d) Facilities in operation on or before the effective date of this rule, shall be exempt from the requirements of rules 335-13-~~514-.042(31)~~(ab)2.(i) and 335-13-14-.05, except for any major modifications that may occur after said date.

Author: Phillip D. Davis, S. Scott Story, Jonathan E. Crosby.

Statutory Authority: Code of Alabama 1975, §§ 22-27-9 and 22-27-12.

History: Effective: April 3, 2012. **Amended:** Filed: April 24, 2018; Effective: June 8, 2018. **Amended: Proposed: July 20, 2021.**

335-13-14-.04 ~~Application Requirements.~~[Reserved]

~~(1) — No person may receive, store or process solid waste for composting without being properly permitted by the Department, except as described by rule 335-13-14-.03(3). Any person who operates a composting facility, without having applied for a permit with the Department shall be considered to be operating an unpermitted solid waste facility and shall be subject to enforcement action in accordance with this division.~~

~~(2) — The owner or operator of each composting facility in existence on the effective date of this rule shall file an application for a permit with ADEM not later than June 1, 2012. The owner or operator of each new composting facility desiring to begin operation after the effective date of this chapter shall obtain a permit prior to commencing composting activities.~~

~~(3) — Each owner or operator of a composting facility shall file an application prepared by a professional engineer for a permit with ADEM utilizing a form designated by the Department. In addition to the designated form, the following information shall be submitted:~~

~~(a) — Documentation of host government approval as provided in the Code of Alabama 1975, § 22-27-48 and 48.1.~~

~~(b) — List of feed stocks to be accepted at the composting facility and the operational capacity.~~

~~(c) — Legal property description and plat prepared by a land surveyor with the seal or signature and registration number of the land surveyor affixed.~~

~~(d) — Composting facility design plans and operational plan in accordance with this chapter. Design plans and operational plans shall be prepared by a professional engineer. The seal or signature and registration number of the design engineer shall be affixed to the plans.~~

~~(e) — A process flow diagram of the entire facility.~~

~~(f) — Fire prevention plan.~~

~~(g) — A closure plan, approved by the Department, that at a minimum includes:~~

~~1. — Information detailing the removal of all remaining solid waste material from the site as required by rule 335-13-14-.09;~~

~~2. — A detailed written estimate, in current dollars, of the cost required to complete closure of the composting facility in accordance with rule 335-13-14-.09; and~~

~~3. — A demonstration by the applicant of its ability to provide adequate financial coverage equal to the amount required in rule 335-13-14-.04(3)(g)2. for the closure of the composting facility.~~

~~(h) — The names and addresses of all property owners whose properties are adjacent to the proposed site.~~

~~**Author:** Phillip D. Davis, Eric L. Sanderson, S. Scott Story.~~

~~**Statutory Authority:** Code of Alabama 1975, §§ 22-27-9 and 22-27-12.~~

~~**History:** Effective: April 3, 2012. **Amended:** Filed: April 24, 2018; Effective: June 8, 2018. **Amended:** Proposed: July 20, 2021.~~

335-13-14-.07 ~~[Reserved] Permitting Requirements.~~

~~(1) — Permit Duration. Composting facility permits obtained under compliance with this Division shall be valid for the design life of the facility or as otherwise determined by the Department, but no longer than a period of ten years. Permits, however, are subject to suspension or revocation under rule 335-13-14-.07(5) of this Chapter.~~

~~(2) — Filing Deadline. Request for extension, renewal, or a new permit for a composting facility shall be filed with the Department by the operating agency at least 270 days prior to expiration date for existing permits or proposed construction date for new facilities.~~

~~(3) — Modifications. Prior to any change in the permitted design plans, operational plans and closure plans, the request for modification must be filed with the Department at least 90 days prior to the anticipated change and shall receive approval from the Department prior to the implementation of the proposed change. Any modification subject to local host government review and approval shall constitute a major modification and shall be subject to the requirements of rule 335-13-14-.10~~

~~(4) — Permit Application Denial.~~

~~(a) — As determined by the Director, substantial non-compliance with Department regulations or permits at any facility in the State of Alabama owned or operated by the applicant, including any facility for which the pending permit application is requested, will be grounds for denial of the application, or alternatively, for suspension of further consideration of the application until such noncompliance is corrected.~~

~~(b) — In addition to the foregoing, the Director may deny a permit application if:~~

~~1. — The Director determines that a permit could not be issued that would result in compliance with applicable solid waste standards;~~

~~2. — The applicant could not comply with the permit as issued; or~~

~~3. — The applicant is found to have submitted false or inaccurate information.~~

~~(c) — Upon denial of an application for permit renewal, the applicant shall meet the closure requirements of rule 335-13-14-.09.~~

~~(5) — Permit Suspension or Revocation.~~

~~(a) — The Department may suspend or revoke any permit issued under this chapter if any of the following conditions are true:~~

~~1. — The permittee is determined by the Department to be in violation of any permit condition,~~

~~2. — The permittee fails to perform the permitted activities in accordance with the approved permit application, operational plan/narrative, or engineering drawings,~~

~~3. The permittee fails to apply for a permit modification, as required by the rules,~~

~~4. The permittee stops accepting and processing raw material for more than 180 days, or~~

~~5. The permittee's operations are determined to create a nuisance or are inconsistent with the requirements of the Act or this Division.~~

~~(b) In the event of suspension or revocation of a permit, the Department shall serve notice of such action on the permittee and shall set forth in such notice the reason or reasons for such action.~~

~~(c) Upon revocation or suspension of the permit, the permittee shall meet the closure requirements of rule 335-13-14-.09.~~

Author: Phillip D. Davis, S. Scott Story.

Statutory Authority: Code of Alabama 1975, §§ 22-27-9 and 22-27-12.

History: Effective: April 3, 2012. **Amended:** Filed: April 24, 2018; Effective: June 8, 2018; **Amended:** Filed: June 25, 2019; Effective: August 9, 2019. **Amended: Proposed: July 20, 2021.**

335-13-14-.10 ~~[Reserved] Public Notice.~~

~~(1) — Notice Requirements.~~

~~(a) — The Department shall provide notice and an opportunity for a public hearing on any composting facility permit initial issuance, renewal, modification subject to local host government review and approval, or if otherwise determined by ADEM to be necessary to meet the requirements of this Division.~~

~~(b) — The following procedures shall be observed:~~

~~1. — The Department shall notify interested and potentially interested persons of the proposed composting facility by publishing a notice in a newspaper of general circulation in the area.~~

~~(i) — The notice shall be given not less than 35 days prior to the proposed issuance of a permit.~~

~~(ii) — The notice shall contain the specific type and nature of the composting facility, the type of waste to be accepted, the person or agency requesting the permit, and the descriptive location of the processing area, address and telephone number of the Department, and that interested persons may request a public hearing on the proposed composting facility.~~

~~2. — Landowners adjacent to a proposed composting facility shall receive a copy of the public notice.~~

~~(2) — Departmental Action. The Department shall take one of the following actions after the completion of the notice period:~~

~~(a) — Deny the permit, stating in writing the reasons for denial and inform the person requesting the permit of appeal procedures in rule 335-13-1-.07;~~

~~(b) — Issue the permit if the application complies with this Division; or~~

~~(c) — Require additional information, elements of design for the facility, and specify procedures for inclusion into the permit prior to issuance of the permit.~~

Author: Phillip D. Davis, S. Scott Story.

Statutory Authority: Code of Alabama 1975, §§ 22-27-9 and 22-27-12.

History: Effective: April 3, 2012. **Amended:** Filed: April 24, 2018; Effective: June 8, 2018. **Amended: Proposed: July 20, 2021.**

335-13-14-.11 ~~[Reserved] Public Hearing.~~

~~(1) — Authorization. The Department shall authorize a public hearing at its discretion, or upon receipt of significant number of technical requests as provided in rule 335-13-14-.11(2).~~

~~(2) — Procedures.~~

~~(a) — Requests for public hearings shall be submitted in writing to the Department by interested persons.~~

~~1. — Frivolous or nontechnical requests shall be denied by the Department.~~

~~2. — Requests for public hearings must be submitted within 35 days after the publication of the public notice and must contain the following:~~

~~(i) — The name, address and telephone number of the person requesting the hearing.~~

~~(ii) — A brief statement of the person's interest and a summary of the information the person wishes to submit at the hearing.~~

~~(iii) — The person's signature, if an individual, or the signature of a responsible officer of an organization or legal entity.~~

~~(b) — When a hearing has been authorized, the Department shall appoint a hearing officer to conduct the hearing and shall establish a time, date, and location for the hearing.~~

~~(c) — The Department shall give notice of the public hearing in the manner set forth in rule 335-13-14-.10, and as applicable, to the persons requesting the hearing in rule 335-13-14-.11(2). The notice given not less than 35 days prior to the time of the public hearing shall include:~~

~~1. — A summary of the proposed permit.~~

~~2. — The place, time, and date of the hearing.~~

~~3. — The name, address and telephone number of an office at which interested persons may receive further information regarding the proposed permit.~~

~~(3) — Departmental Action. The Department shall take one of the following actions after the hearing and completion of the notice period:~~

~~(a) — Deny the permit, stating in writing the reasons for denial and informing the applicant requesting the permit of the appeal procedures in rule 335-13-1-.07;~~

~~(b) — Issue the permit if the application complies with this Division; or~~

~~(c) — Require additional information, elements of design for the facility, and specify procedures for inclusion into the permit prior to issuance of the permit.~~

Author: Phillip D. Davis, S. Scott Story.

Statutory Authority: Code of Alabama 1975, §§22-27-9 and 22-27-12.

History: Effective: April 3, 2012. ~~**Amended:** Filed: April 24, 2018; Effective: June 8, 2018.~~ **Amended:** Proposed: July 20, 2021.

335-13-15-.01 General Provisions.

(1) Scope and purpose.

(a) This chapter applies to owners and operators of new and existing landfills and surface impoundments, including any lateral expansions of such units, that dispose or otherwise engage in solid waste management of CCR generated from the combustion of coal at electric utilities and independent power producers. Unless otherwise provided in this chapter, these requirements also apply to disposal units located off-site of the electric utility or independent power producer. This chapter also applies to any practice that does not meet the definition of a beneficial use of CCR.

(b) This chapter also applies to inactive CCR surface impoundments at active electric utilities or independent power producers, regardless of the fuel currently used at the facility to produce electricity.

(c) This chapter does not apply to CCR landfills that have ceased receiving CCR prior to October 19, 2015.

(d) This chapter does not apply to electric utilities or independent power producers that have ceased producing electricity prior to October 19, 2015.

(e) This chapter does not apply to wastes, including fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated at facilities that are not part of an electric utility or independent power producer, such as manufacturing facilities, universities, and hospitals. This chapter also does not apply to fly ash, bottom ash, boiler slag, and flue gas desulfurization materials, generated primarily from the combustion of fuels (including other fossil fuels) other than coal, for the purpose of generating electricity unless the fuel burned consists of more than fifty percent (50%) coal on a total heat input or mass input basis, whichever results in the greater mass feed rate of coal.

(f) This chapter does not apply to practices that meet the definition of a beneficial use of CCR.

(g) This chapter does not apply to CCR placement at active or abandoned underground or surface coal mines.

(h) This chapter does not apply to municipal solid waste landfills that receive CCR.

(i) ADEM Admin. Code ch. 335-13-5 outlines the procedures for obtaining a permit for new and existing CCR surface impoundments and landfills, including lateral expansions of such units.

(2) Applicability of other regulations.

(a) Compliance with the requirements of this chapter does not affect the need for the owner or operator of a CCR landfill, CCR surface impoundment, or lateral expansion of a CCR unit to comply with all other applicable federal, state, or local laws or other requirements.

(b) Any CCR landfill, CCR surface impoundment, or lateral expansion of a CCR unit continues to be subject to the following:

1. ~~requirements in~~ Facilities or practices in floodplains shall not restrict the flow of a 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste, so as to pose a hazard to human life, wildlife, or land or water resources; ~~335-13-4-.01(1)(a),~~

2. ~~Facilities or practices shall not cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife or result in the destruction or adverse modification of the critical habitat of endangered or threatened species as identified in 50 CFR part 17;~~

~~335-13-4-.01(1)(b)~~

3. ~~CCR units shall not be located on a site that is archaeologically or historically sensitive as determined by the Alabama Historical Commission. Written certification must be provided from the State Historic Preservation Officer; and, ~~335-13-4-.01(1)(e) and~~~~

4. ~~A CCR unit shall be located so as to not adversely impact water quality by complying with the following:~~

(i) ~~A CCR unit shall not cause a discharge of pollutants into waters of the State, including wetlands, that is in violation of the requirements of the National Pollutant Discharge Elimination System (NPDES), Alabama Water Pollution Control Act, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 and/or section 404 of the Clean Water Act, as amended.~~

(ii) ~~A CCR unit shall not cause non-point source pollution of waters of the State, including wetlands, that violates any requirements of an area wide and statewide water quality management plan that has been approved under the Alabama Water Pollution Control Act.~~

(iii) ~~CCR units, including buffer zones, shall not be permissible in wetlands, beaches or dunes.~~

(iv) ~~CCR units shall not be permissible in any location where the disposal of solid waste would significantly degrade wetlands, beaches or dunes.~~

(v) ~~CCR units shall be located outside the boundaries of the coastal area, unless no other reasonable alternative is available. If a site within the coastal area is proposed for development as a CCR unit, it shall be demonstrated to the satisfaction~~

of the Department that siting, design, construction, and operation will ensure that present levels of coastal plants and animals will be maintained.~~335-13-4-01(2).~~

Author: Eric L. Sanderson, S. Scott Story, Heather M. Jones

Statutory Authority: Code of Alabama 1975, §§ 22-27-3 and 22-27-7

History: Filed: April 24, 2018; Effective: June 8, 2018; **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

335-13-15-.02 Definitions. The following definitions apply to this chapter. Terms not defined in this chapter have the meaning given in 335-13-1-.03.

(1) Acre foot - the volume of one acre of surface area to a depth of one foot.

(2) Active facility or active electric utilities or independent power producers - any facility subject to the requirements of this chapter that is in operation on October 19, 2015. An electric utility or independent power producer is in operation if it is generating electricity that is provided to electric power transmission systems or to electric power distribution systems on or after October 19, 2015. An off-site disposal facility is in operation if it is accepting or managing CCR on or after October 19, 2015.

(3) Active life or in operation - the period of operation beginning with the initial placement of CCR in the CCR unit and ending at completion of closure activities in accordance with 335-13-15-.07(3).

(4) Active portion - that part of the CCR unit that has received or is receiving CCR or non-CCR waste and that has not completed closure in accordance with 335-13-15-.07(3).

(5) Aquifer - a geologic formation, group of formations, or portion of a formation capable of yielding usable quantities of groundwater to wells, springs or waters of the state.

(6) Area-capacity curves - graphic curves which readily show the reservoir water surface area, in acres, at different elevations from the bottom of the reservoir to the maximum water surface, and the capacity or volume, in acre-feet, of the water contained in the reservoir at various elevations.

(7) Areas susceptible to mass movement - those areas of influence (i.e., areas characterized as having an active or substantial possibility of mass movement) where, because of natural or human-induced events, the movement of earthen material at, beneath, or adjacent to the CCR unit results in the downslope transport of soil and rock material by means of gravitational influence. Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, soil fluctuation, block sliding, and rock fall.

(8) Beneficial use of CCR - the CCR meet all of the following conditions:

(a) The CCR must provide a functional benefit;

(b) The CCR must substitute for the use of a virgin material, conserving natural resources that would otherwise need to be obtained through practices,

such as extraction;

(c) The use of the CCR must meet relevant product specifications, regulatory standards or design standards when available, and when such standards are not available, the CCR is not used in excess quantities; and

(d) When unencapsulated use of CCR involves placement on the land of 12,400 tons or more in non-roadway applications, the user must demonstrate and keep records, and provide such documentation upon request, that environmental releases to groundwater, surface water, soil and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use.

(9) Closed - placement of CCR in a CCR unit has ceased, and the owner or operator has completed closure of the CCR unit in accordance with 335-13-15-.07(3) and has initiated post-closure care in accordance with 335-13-15-.07(5).

(10) Coal combustion residuals (CCR) - fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated from burning coal for the purpose of generating electricity by electric utilities and independent power producers.

(11) CCR fugitive dust - solid airborne particulate matter that contains or is derived from CCR, emitted from any source other than a stack or chimney.

(12) CCR landfill or landfill - an area of land or an excavation that receives CCR and which is not a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground or surface coal mine, or a cave. For purposes of this chapter, a CCR landfill also includes sand and gravel pits and quarries that receive CCR, CCR piles, and any practice that does not meet the definition of a beneficial use of CCR.

(13) CCR pile or pile - any non-containerized accumulation of solid, non-flowing CCR that is placed on the land. CCR that is beneficially used off-site is not a CCR pile.

(14) CCR surface impoundment or impoundment - a natural topographic depression, man-made excavation, or diked area, which is designed to hold an accumulation of CCR and liquids, and the unit treats, stores, or disposes of CCR.

(15) CCR unit - any CCR landfill, CCR surface impoundment, or lateral expansion of a CCR unit, or a combination of more than one of these units, based on the context of the paragraph(s) in which it is used. This term includes

both new and existing units, unless otherwise specified.

(16) Dike - an embankment, berm, or ridge of either natural or man-made materials used to prevent the movement of liquids, sludges, solids, or other materials.

(17) Disposal - the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste as defined in 335-13-1-.03 into or on any land or water so that such solid waste, or constituent thereof, may enter the environment or be emitted into the air or discharged into any waters, including groundwaters. Disposal does not include the storage or the beneficial use of CCR.

(18) Downstream toe - the junction of the downstream slope or face of the CCR surface impoundment with the ground surface.

(19) Eligible unlined CCR surface impoundment - an existing CCR surface impoundment that meets all of the following conditions:

(a) The owner or operator has documented that the CCR unit is in compliance with the location restrictions specified in 335-13-15-.03(1) through (5);

(b) The owner or operator has documented that the CCR unit is in compliance with the periodic safety factor assessment requirements in 335-13-15-.04(4)(e) and (f); and

(c) No constituent listed in Appendix IV to this chapter has been detected at a statistically significant level exceeding a groundwater protection standard defined in 335-13-15-.06(6)(h).

~~Encapsulated beneficial use - a beneficial use of CCR that binds the CCR into a solid matrix that minimizes its mobilization into the surrounding environment.~~

(20) Encapsulated beneficial use - a beneficial use of CCR that binds the CCR into a solid matrix that minimizes its mobilization into the surrounding environment.~~Eligible unlined CCR surface impoundment - an existing CCR surface impoundment that meets all of the following conditions:~~

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~~(b) The owner or operator has documented that the CCR unit is in compliance with the periodic safety factor assessment requirements in 335-13-15-.04(4)(e) and (f); and~~

~~(c) No constituent listed in Appendix IV to this chapter has been~~

~~detected at a statistically significant level exceeding a groundwater protection standard defined in 335-13-15-.06(6)(h).~~

(21) Existing CCR landfill - a CCR landfill that receives CCR both before and after October 19, 2015, or for which construction commenced prior to October 19, 2015 and receives CCR on or after October 19, 2015. A CCR landfill has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction and a continuous on-site, physical construction program had begun prior to October 19, 2015.

(22) Existing CCR surface impoundment - a CCR surface impoundment that receives CCR both before and after October 19, 2015, or for which construction commenced prior to October 19, 2015 and receives CCR on or after October 19, 2015. A CCR surface impoundment has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction and a continuous on-site, physical construction program had begun prior to October 19, 2015.

(23) Facility - all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, disposing, or otherwise conducting solid waste management of CCR. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations of them).

(24) Factor of safety (Safety factor) - the ratio of the forces tending to resist the failure of a structure to the forces tending to cause such failure as determined by accepted engineering practice.

(25) Flood hydrograph - a graph showing, for a given point on a stream, the discharge, height, or other characteristic of a flood as a function of time.

(26) Freeboard - the vertical distance between the lowest point on the crest of the impoundment dike and the surface of the waste contained therein.

(27) Hazard potential classification - the possible adverse incremental consequences that result from the release of water or stored contents due to failure of the diked CCR surface impoundment or mis-operation of the diked CCR surface impoundment or its appurtenances. The hazardous potential classifications include high hazard potential CCR surface impoundment, significant hazard potential CCR surface impoundment, and low hazard potential CCR surface impoundment, which terms mean:

(a) High hazard potential CCR surface impoundment - a diked surface impoundment where failure or mis-operation will probably cause loss of human life.

(b) Low hazard potential CCR surface impoundment - a diked surface impoundment where failure or mis-operation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the surface impoundment owner's property.

(c) Significant hazard potential CCR surface impoundment - a diked surface impoundment where failure or mis-operation results in no probable loss of human life, but can cause economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns.

(28) Height - the vertical measurement from the downstream toe of the CCR surface impoundment at its lowest point to the lowest elevation of the crest of the CCR surface impoundment.

(29) Hydraulic conductivity - the rate at which water can move through a permeable medium (i.e., the coefficient of permeability).

(30) Inactive CCR surface impoundment - a CCR surface impoundment that no longer receives CCR on or after October 19, 2015 and still contains both CCR and liquids on or after October 19, 2015.

(31) Incised CCR surface impoundment - a CCR surface impoundment which is constructed by excavating entirely below the natural ground surface, holds an accumulation of CCR entirely below the adjacent natural ground surface, and does not consist of any constructed diked portion.

(32) Indian country or Indian lands:

(a) All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and including rights-of-way running throughout the reservation;

(b) All dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of Alabama; and

(c) All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

(33) Indian Tribe or Tribe - any Indian tribe, band, nation, or community recognized by the Secretary of the Interior and exercising substantial governmental duties and powers on Indian lands.

(34) Inflow design flood - the flood hydrograph that is used in the design or modification of the CCR surface impoundments and its appurtenant works.

(35) In operation - the same as active life.

(36) Karst terrain - an area where karst topography, with its characteristic erosional surface and subterranean features, is developed as the result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terrains include, but are not limited to, dolines, collapse shafts (sinkholes), sinking streams, caves, seeps, large springs, and blind valleys.

(37) Lateral expansion - a horizontal expansion of the waste boundaries of an existing CCR landfill or existing CCR surface impoundment made after October 19, 2015.

(38) Liquefaction factor of safety - the factor of safety (safety factor) determined using analysis under liquefaction conditions.

(39) Maximum horizontal acceleration in lithified earth material - the maximum expected horizontal acceleration at the ground surface as depicted on a seismic hazard map, with a 98% or greater probability that the acceleration will not be exceeded in 50 years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment.

(40) New CCR landfill - a CCR landfill or lateral expansion of a CCR landfill that first receives CCR or commences construction after October 19, 2015. A new CCR landfill has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction and a continuous on-site, physical construction program had begun after October 19, 2015. Overfills are also considered new CCR landfills.

(41) New CCR surface impoundment - a CCR surface impoundment or lateral expansion of an existing or new CCR surface impoundment that first receives CCR or commences construction after October 19, 2015. A new CCR surface impoundment has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction and a continuous on-site, physical construction program had begun after October 19, 2015.

(42) Operator - the person(s) responsible for the overall operation of a CCR unit.

(43) Overfill - a new CCR landfill constructed over a closed CCR surface impoundment.

(44) Owner - the person(s) who owns a CCR unit or part of a CCR unit.

(45) Poor foundation conditions - those areas where features exist which indicate that a natural or human-induced event may result in inadequate

foundation support for the structural components of an existing or new CCR unit. For example, failure to maintain static and seismic factors of safety as required in 335-13-15-.04(4)(e) and 335-13-15-.04(5)(e) would cause a poor foundation condition.

(46) Probable maximum flood - the flood that may be expected from the most severe combination of critical meteorologic and hydrologic conditions that are reasonably possible in the drainage basin.

(47) Qualified person - a person or persons trained to recognize specific appearances of structural weakness and other conditions which are disrupting or have the potential to disrupt the operation or safety of the CCR unit by visual observation and, if applicable, to monitor instrumentation.

(48) Qualified professional engineer - an individual who is licensed by the State of Alabama as a Professional Engineer to practice one or more disciplines of engineering and who is qualified by education, technical knowledge and experience to make the specific technical certifications required under this chapter.

(49) Recognized and generally accepted good engineering practices - engineering maintenance or operation activities based on established codes, widely accepted standards, published technical reports, or a practice widely recommended throughout the industry. Such practices generally detail approved ways to perform specific engineering, inspection, or mechanical integrity activities.

(50) Retrofit - to remove all CCR and contaminated soils and sediments from the CCR surface impoundment, and to ensure the unit complies with the requirements in 335-13-15-.04(3).

(51) Run-off - any rainwater, leachate, or other liquid that drains over land from any part of a CCR landfill or lateral expansion of a CCR landfill.

(52) Run-on - any rainwater, leachate, or other liquid that drains over land onto any part of a CCR landfill or lateral expansion of a CCR landfill.

(53) Sand and gravel pit or quarry - an excavation for the extraction of aggregate, minerals or metals. The term sand and gravel pit and/or quarry does not include subsurface or surface coal mines.

(54) Seismic factor of safety - the factor of safety (safety factor) determined using analysis under earthquake conditions using the peak ground acceleration for a seismic event with a 2% probability of exceedance in 50 years, equivalent to a return period of approximately 2,500 years, based on the U.S. Geological Survey (USGS) seismic hazard maps for seismic events with this return period for the region where the CCR surface impoundment is located.

(55) Seismic impact zone - an area having a 2% or greater probability that the maximum expected horizontal acceleration, expressed as a percentage of the earth's gravitational pull (g), will exceed 0.10 g in 50 years.

(56) Slope protection - engineered or non-engineered measures installed on the upstream or downstream slope of the CCR surface impoundment to protect the slope against wave action or erosion, including but not limited to rock riprap, wooden pile, or concrete revetments, vegetated wave berms, concrete facing, gabions, geotextiles, or fascines.

(57) Solid waste management or management - the systematic administration of the activities which provide for the collection, source separation, storage, transportation, processing, treatment, or disposal of solid waste.

(58) Static factor of safety - the factor of safety (safety factor) determined using analysis under the long-term, maximum storage pool loading condition, the maximum surcharge pool loading condition, and under the end-of-construction loading condition.

(59) Structural components - liners, leachate collection and removal systems, final covers, run-on and run-off systems, inflow design flood control systems, and any other component used in the construction and operation of the CCR unit that is necessary to ensure the integrity of the unit and that the contents of the unit are not released into the environment.

(60) Taking - harassing, harming, pursuing, hunting, wounding, killing, trapping, capturing, or collecting or attempting to engage in such conduct.

~~(61)~~ Technically feasible - possible to do in a way that would likely be successful.

~~(62)~~ Technically infeasible - not possible to do in a way that would likely be successful.

~~(63)~~ Unstable area - a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity, including structural components of some or all of the CCR unit that are responsible for preventing releases from such unit. Unstable areas can include poor foundation conditions, areas susceptible to mass movements, and karst terrains.

~~(64)~~ Uppermost aquifer - the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary. Upper limit is measured at a point nearest to the natural ground surface to which the aquifer rises during the wet season.

(654) Waste boundary - a vertical surface located at the hydraulically downgradient limit of the CCR unit. The vertical surface extends down into the uppermost aquifer.

Author: Heather M. Jones

Statutory Authority: Code of Alabama 1975, §§ 22-27-2, 22-27-3, 22-27-7, 22-27-9 and 22-27-12

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335-13-15-.04 Design Criteria.

(1) Design Criteria for new CCR landfills and any lateral expansion of a CCR landfill.

(a) 1. New CCR landfills and any lateral expansion of a CCR landfill must be designed, constructed, operated, and maintained with either a composite liner that meets the requirements of 335-13-15-.04(1)(b) or an alternative composite liner that meets the requirements in 335-13-15-.04(1)(c), and a leachate collection and removal system that meets the requirements of 335-13-15-.04(1)(~~e~~).

2. Prior to construction of an overfill, the underlying surface impoundment must meet the requirements of 335-13-15-.07(3)(d).

(b) A composite liner must consist of two components; the upper component consisting of, at a minimum, a 40-mil geomembrane liner (GM), and the lower component consisting of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} centimeters per second (cm/sec). GM components consisting of high density polyethylene (HDPE) must be at least 60-mil thick. The GM or upper liner component must be installed in direct and uniform contact with the compacted soil or lower liner component. The composite liner must be:

1. Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the CCR or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

2. Constructed of materials that provide appropriate shear resistance of the upper and lower component interface to prevent sliding of the upper component, including on slopes;

3. Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

4. Installed to cover all surrounding earth likely to be in contact with the CCR or leachate.

(c) If the owner or operator elects to install an alternative composite liner, all of the following requirements must be met:

1. An alternative composite liner must consist of two components; the upper component consisting of, at a minimum, a 40-mil GM, and a lower component, that is not a geomembrane, with a liquid flow rate no greater than

the liquid flow rate of two feet of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec. GM components consisting of high density polyethylene (HDPE) must be at least 60-mil thick. If the lower component of the alternative liner is compacted soil, the GM must be installed in direct and uniform contact with the compacted soil.

2. The owner or operator must obtain certification from a qualified professional engineer that the liquid flow rate through the lower component of the alternative composite liner is no greater than the liquid flow rate through two feet of compacted soil with a hydraulic conductivity of 1×10^{-7} cm/sec. The hydraulic conductivity for the two feet of compacted soil used in the comparison shall be no greater than 1×10^{-7} cm/sec. The hydraulic conductivity of any alternative to the two feet of compacted soil must be determined using recognized and generally accepted methods. The liquid flow rate comparison must be made using Equation 1 of this section, which is derived from Darcy's Law for gravity flow through porous media.

$$(Eq. 1) \quad \frac{Q}{A} = q = k \left(\frac{h}{t} + 1 \right)$$

Where,

Q = flow rate (cubic centimeters/second);

A = surface area of the liner (squared centimeters);

q = flow rate per unit area (cubic centimeters/second/squared centimeter);

k = hydraulic conductivity of the liner (centimeters/second);

h = hydraulic head above the liner (centimeters); and

t = thickness of the liner (centimeters).

3. The alternative composite liner must meet the requirements specified in 335-13-15-.04(1)(b)1. through 4.

4(d)- The installation of composite liners shall be as recommended by the manufacturer providing that:

(i)1. The installation recommendations of the manufacturer to be used are provided to the Department for review.

(ii)2. The Department finds that the recommended installation procedures are consistent with the intent of this chapter.

(iii)3. The installation of the liner shall be under the supervision of an engineer who shall certify to the Department that the liner was installed and maintained in accordance with this Division, QA/QC plans, and approved design plans.

(d)e The leachate collection and removal system must be designed, constructed, operated, and maintained to collect and remove leachate from the landfill during the active life and post-closure care period. The leachate collection and removal system must be:

1. Designed and operated to maintain less than a 30-centimeter depth of leachate over the composite liner or alternative composite liner;

2. Constructed of materials that are chemically resistant to the CCR and any non-CCR waste managed in the CCR unit and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying waste, waste cover materials, and equipment used at the CCR unit; and

3. Designed and operated to minimize clogging during the active life and post-closure care period.

(ef) Prior to construction of the CCR landfill or any lateral expansion of a CCR landfill, the owner or operator must obtain a certification from a qualified professional engineer that the design of the composite liner (or, if applicable, alternative composite liner) and the leachate collection and removal system meets the requirements of this section.

(fg) Upon completion of construction of the CCR landfill or any lateral expansion of a CCR landfill, the owner or operator must obtain a certification from a qualified professional engineer that the composite liner (or, if applicable, alternative composite liner) and the leachate collection and removal system hasve been constructed in accordance with the requirements of this section.

(hg) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(f), the notification requirements specified in 335-13-15-.08(2)(f), and the internet requirements specified in 335-13-15-.08(3)(f).

(2) Liner design criteria for existing CCR surface impoundments.

(a) 1. No later than October 17, 2016, the owner or operator of an existing CCR surface impoundment must document whether or not such unit was constructed with any one of the following:

(i) [Reserved]

(ii) A composite liner that meets the requirements of 335-13-15-.04(1)(b); or

(iii) An alternative composite liner that meets the requirements of 335-13-15-.04(1)(c).

2. The hydraulic conductivity of the compacted soil must be determined using recognized and generally accepted methods.

3. An existing CCR surface impoundment is considered to be an existing unlined CCR surface impoundment if either:

(i) The owner or operator of the CCR unit determines that the CCR unit is not constructed with a liner that meets the requirements of 335-13-15-.04(2)(a)1.(ii), or (iii); or

(ii) The owner or operator of the CCR unit fails to document whether the CCR unit was constructed with a liner that meets the requirements of 335-13-15-.04(2)(a)1.(ii), or (iii).

4. All existing unlined CCR surface impoundments are subject to the requirements of 335-13-15-.07(2)(a).

(b) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer attesting that the documentation as to whether a CCR unit meets the requirements of 335-13-15-.04(2)(a) is accurate. This certification must be submitted to the Department.

(c) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(f), the notification requirements specified in 335-13-15-.08(2)(f), and the internet requirements specified in 335-13-15-.08(3)(f).

(3) Liner design criteria for new CCR surface impoundments and any lateral expansion of a CCR surface impoundment.

(a) New CCR surface impoundments and lateral expansions of existing and new CCR surface impoundments must be designed, constructed, operated, and maintained with either a composite liner or an alternative composite liner that meets the requirements of 335-13-15-.04(1)(b) or (c).

(b) Any liner specified in this section must be installed to cover all surrounding earth likely to be in contact with CCR. Dikes shall not be constructed on top of the composite liner.

(c) Prior to construction of the CCR surface impoundment or any lateral expansion of a CCR surface impoundment, the owner or operator must obtain certification from a qualified professional engineer that the design of the composite liner or, if applicable, the design of an alternative composite liner complies with the requirements of this section. This certification must be submitted to the Department.

(d) Upon completion, the owner or operator must obtain certification from a qualified professional engineer that the composite liner or if applicable, the alternative composite liner has been constructed in accordance with the requirements of this section.

(e) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(f), the notification requirements specified in 335-13-15-.08(2)(f), and the internet requirements specified in 335-13-15-.08(3)(f).

(4) Structural integrity criteria for existing CCR surface impoundments.

(a) The requirements of 335-13-15-.04(4)(a)1. through 4. apply to all existing CCR surface impoundments, except for those existing CCR surface impoundments that are incised CCR units. If an incised CCR surface impoundment is subsequently modified (e.g., a dike is constructed) such that the CCR unit no longer meets the definition of an incised CCR unit, the CCR unit is subject to the requirements of 335-13-15-.04(4)(a)1. through 4.

1. No later than December 17, 2015, the owner or operator of the CCR unit must place on or immediately adjacent to the CCR unit a permanent identification marker, at least six feet high showing the identification number of the CCR unit, if one has been assigned by the state, the name associated with the CCR unit and the name of the owner or operator of the CCR unit.

2. Periodic hazard potential classification assessments.

(i) The owner or operator of the CCR unit must conduct initial and periodic hazard potential classification assessments of the CCR unit according to the timeframes specified in 335-13-15-.04(4)(f). The owner or operator must document the hazard potential classification of each CCR unit as either a high hazard potential CCR surface impoundment, a significant hazard potential CCR surface impoundment, or a low hazard potential CCR surface impoundment. The owner or operator must also document the basis for each hazard potential classification.

(ii) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the initial hazard potential classification and each subsequent periodic classification specified in 335-13-15-.04(4)(a)2.(i) was conducted in accordance with the requirements of this section. This certification must be submitted to the Department.

3. Emergency Action Plan (EAP).

(i) Development of the plan. No later than April 17, 2017, the owner or operator of a CCR unit determined to be either a high hazard potential CCR surface impoundment or a significant hazard potential CCR surface impoundment under 335-13-15-.04(4)(a)2. must prepare and maintain a written EAP. At a minimum, the EAP must:

(I) Define the events or circumstances involving the CCR unit that

represent a safety emergency, along with a description of the procedures that will be followed to detect a safety emergency in a timely manner;

(II) Define responsible persons, their respective responsibilities, and notification procedures in the event of a safety emergency involving the CCR unit;

(III) Provide contact information of emergency responders;

(IV) Include a map which delineates the downstream area which would be affected in the event of a CCR unit failure and a physical description of the CCR unit; and

(V) Include provisions for an annual face-to-face meeting or exercise between representatives of the owner or operator of the CCR unit and the local emergency responders.

(ii) Amendment of the plan.

(I) The owner or operator of a CCR unit subject to the requirements of 335-13-15-.04(4)(a)3.(i) may amend the written EAP at any time provided the revised plan is placed in the facility's operating record as required by 335-13-15-.08(1)(f)6. The owner or operator must amend the written EAP whenever there is a change in conditions that would substantially affect the EAP in effect.

(II) The written EAP must be evaluated, at a minimum, every five years to ensure the information required in 335-13-15-.04(4)(a)3.(i) is accurate. As necessary, the EAP must be updated and a revised EAP placed in the facility's operating record as required by 335-13-15-.08(1)(f)6.

(iii) Changes in hazard potential classification.

(I) If the owner or operator of a CCR unit determines during a periodic hazard potential assessment that the CCR unit is no longer classified as either a high hazard potential CCR surface impoundment or a significant hazard potential CCR surface impoundment, then the owner or operator of the CCR unit is no longer subject to the requirement to prepare and maintain a written EAP beginning on the date the periodic hazard potential assessment documentation is placed in the facility's operating record as required by 335-13-15-.08(1)(f)5.

(II) If the owner or operator of a CCR unit classified as a low hazard potential CCR surface impoundment subsequently determines that the CCR unit is properly re-classified as either a high hazard potential CCR surface impoundment or a significant hazard potential CCR surface impoundment, then the owner or operator of the CCR unit must prepare a written EAP for the CCR unit as required by 335-13-15-.04(4)(a)3.(i) within six months of completing such periodic hazard potential assessment.

(iv) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the written EAP, and any subsequent amendment of the EAP, meets the requirements of 335-13-15-.04(4)(a)3. The EAP, as well as the certification from a qualified professional engineer, must be submitted to the Department for approval.

(v) Activation of the EAP. The EAP must be implemented once events or circumstances involving the CCR unit that represent a safety emergency are detected, including conditions identified during periodic structural stability assessments, annual inspections, and inspections by a qualified person.

4. The CCR unit and surrounding areas must be designed, constructed, operated, and maintained with vegetated slopes of dikes. Deep rooted vegetation (roots that may grow below the six inch erosion layer) shall be prohibited as vegetative cover.

(b) The requirements of 335-13-15-.04(4)(c) through (e) apply to an owner or operator of an existing CCR surface impoundment that either:

1. Has a height of five feet or more and a storage volume of 20 acre-feet or more; or

2. Has a height of 20 feet or more.

(c) 1. No later than October 17, 2016, the owner or operator of the CCR unit must compile a history of construction, which shall contain, to the extent feasible, the information specified in 335-13-15-.04(4)(c)1.(i) through (xi).

(i) The name and address of the person(s) owning or operating the CCR unit; the name associated with the CCR unit; and the identification number of the CCR unit if one has been assigned by the state.

(ii) The location of the CCR unit identified on the most recent U.S. Geological Survey (USGS) 7½ minute or 15 minute topographic quadrangle map, or a topographic map of equivalent scale if a USGS map is not available.

(iii) A statement of the purpose for which the CCR unit is being used.

(iv) The name and size in acres of the watershed within which the CCR unit is located.

(v) A description of the physical and engineering properties of the foundation and abutment materials on which the CCR unit is constructed.

(vi) A statement of the type, size, range, and physical and engineering properties of the materials used in constructing each zone or stage of the CCR

unit; the method of site preparation and construction of each zone of the CCR unit; and the approximate dates of construction of each successive stage of construction of the CCR unit.

(vii) At a scale that details engineering structures and appurtenances relevant to the design, construction, operation, and maintenance of the CCR unit, detailed dimensional drawings of the CCR unit, including a plan view and cross sections of the length and width of the CCR unit, showing all zones, foundation improvements, drainage provisions, spillways, diversion ditches, outlets, instrument locations, and slope protection, in addition to the normal operating pool surface elevation and the maximum pool surface elevation following peak discharge from the inflow design flood, the expected maximum depth of CCR within the CCR surface impoundment, and any identifiable natural or manmade features that could adversely affect operation of the CCR unit due to malfunction or mis-operation.

(viii) A description of the type, purpose, and location of existing instrumentation.

(ix) Area-capacity curves for the CCR unit.

(x) A description of each spillway and diversion design feature and capacities and calculations used in their determination.

(xi) The construction specifications and provisions for surveillance, maintenance, and repair of the CCR unit.

(xii) Any record or knowledge of structural instability of the CCR unit.

2. Changes to the history of construction. If there is a significant change to any information compiled under 335-13-15-.04(4)(c)1., the owner or operator of the CCR unit must update the relevant information and place it in the facility's operating record as required by 335-13-15-.08(1)(f)9.

(d) Periodic structural stability assessments.

1. The owner or operator of the CCR unit must conduct initial and periodic structural stability assessments and document whether the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and CCR wastewater which can be impounded therein. The assessment must, at a minimum, document whether the CCR unit has been designed, constructed, operated, and maintained with:

(i) Stable foundations and abutments;

(ii) Adequate slope protection to protect against surface erosion, wave

action, and adverse effects of sudden drawdown;

(iii) Dikes mechanically compacted to a density sufficient to withstand the range of loading conditions in the CCR unit;

(iv) Vegetated slopes of dikes and surrounding areas not to include deep rooted vegetation (roots that may grow below the six inch erosion layer);

(v) A single spillway or a combination of spillways configured as specified in 335-13-15-.04(4)(d)1.(v)(I). The combined capacity of all spillways must be designed, constructed, operated, and maintained to adequately manage flow during and following the peak discharge from the event specified in 335-13-15-.04(4)(d)1.(v)(II).

(I) All spillways must be either:

I. Of non-erodible construction and designed to carry sustained flows;
or

II. Earth- or grass-lined and designed to carry short-term, infrequent flows at non-erosive velocities where sustained flows are not expected.

(II) The combined capacity of all spillways must adequately manage flow during and following the peak discharge from a:

I. Probable maximum flood (PMF) for a high hazard potential CCR surface impoundment; or

II. 1000-year flood for a significant hazard potential CCR surface impoundment; or

III. 100-year flood for a low hazard potential CCR surface impoundment.

(vi) Hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit that maintain structural integrity and are free of significant deterioration, deformation, distortion, bedding deficiencies, sedimentation, and debris which may negatively affect the operation of the hydraulic structure; and

(vii) For CCR units with downstream slopes which can be inundated by the pool of an adjacent water body, such as a river, stream or lake, downstream slopes that maintain structural stability during low pool of the adjacent water body or sudden drawdown of the adjacent water body.

2. The periodic assessment described in 335-13-15-.04(4)(d)1. must identify any structural stability deficiencies associated with the CCR unit in

addition to recommending corrective measures. If a deficiency or a release is identified during the periodic assessment, the owner or operator of a CCR unit must remedy the deficiency or release as soon as feasible and prepare a report detailing the corrective measures taken. This report must be submitted to the Department for review and approval.

3. The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the initial assessment and each subsequent periodic assessment was conducted in accordance with the requirements of this section. This certification must be submitted to the Department.

(e) Periodic safety factor assessments.

1. The owner or operator must conduct an initial and periodic safety factor assessments for each CCR unit and document whether the calculated factors of safety for each CCR unit achieve the minimum safety factors specified in 335-13-15-.04(4)(e)1.(i) through (iv) for the critical cross section of the embankment. The critical cross section is the cross section anticipated to be the most susceptible of all cross sections to structural failure based on appropriate engineering considerations, including loading conditions. The safety factor assessments must be supported by appropriate engineering calculations.

(i) The calculated static factor of safety under the long-term, maximum storage pool loading condition must equal or exceed 1.50.

(ii) The calculated static factor of safety under the maximum surcharge pool loading condition must equal or exceed 1.40.

(iii) The calculated seismic factor of safety must equal or exceed 1.00.

(iv) For dikes constructed of soils that have susceptibility to liquefaction, the calculated liquefaction factor of safety must equal or exceed 1.20.

2. The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the initial assessment and each subsequent periodic assessment specified in 335-13-15-.04(4)(e)1. meets the requirements of this section. This certification must be submitted to the Department.

(f) Timeframes for periodic assessments.

1. Initial assessments. Except as provided by 335-13-15-.04(4)(f)2., the owner or operator of the CCR unit must complete the initial assessments required by 335-13-15-.04(4)(a)2., (d), and (e) no later than October 17, 2016. The owner or operator has completed an initial assessment when the owner or

operator has placed the assessment required by 335-13-15-.04(4)(a)2., (d) and (e) in the facility's operating record as required by 335-13-15-.08(1)(f)5., 10., and 12.

2. Use of a previously completed assessment(s) in lieu of the initial assessment(s). The owner or operator of the CCR unit may elect to use a previously completed assessment to serve as the initial assessment required by 335-13-15-.04(4)(a)2., (d), and (e) provided that the previously completed assessment(s):

(i) Was completed no earlier than 42 months prior to October 17, 2016; and

(ii) Meets the applicable requirements of 335-13-15-.04(4)(a)2., (d), and (e).

3. Frequency for conducting periodic assessments. The owner or operator of the CCR unit must conduct and complete the assessments required by 335-13-15-.04(4)(a)2., (d), and (e) every five years. The date of completing the initial assessment is the basis for establishing the deadline to complete the first subsequent assessment. If the owner or operator elects to use a previously completed assessment(s) in lieu of the initial assessment as provided by 335-13-15-.04(4)(f)2., the date of the report for the previously completed assessment is the basis for establishing the deadline to complete the first subsequent assessment. The owner or operator may complete any required assessment prior to the required deadline provided the owner or operator places the completed assessment(s) into the facility's operating record within a reasonable amount of time. In all cases, the deadline for completing subsequent assessments is based on the date of completing the previous assessment. The owner or operator has completed an assessment when the relevant assessment(s) required by 335-13-15-.04(4)(a)2., (d), and (e) has been placed in the facility's operating record as required by 335-13-15-.08(1)(f)5., 10., and 12.

4. Closure of the CCR unit. An owner or operator of a CCR unit who either fails to complete a timely safety factor assessment or fails to demonstrate minimum safety factors as required by 335-13-15-.04(4)(e) is subject to the requirements of 335-13-15-.07(2)(b)2.

(g) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(f), the notification requirements specified in 335-13-15-.08(2)(f), and the internet requirements specified in 335-13-15-.08(3)(f).

(5) Structural integrity criteria for new CCR surface impoundments and any lateral expansion of a CCR surface impoundment.

(a) The requirements of 335-13-15-.04(5)(a)1. through 4. apply to all new CCR surface impoundments and any lateral expansion of a CCR surface

impoundment, except for those new CCR surface impoundments that are incised CCR units. If an incised CCR surface impoundment is subsequently modified (e.g., a dike is constructed) such that the CCR unit no longer meets the definition of an incised CCR unit, the CCR unit is subject to the requirements of 335-13-15-.04(5)(a)1. through 4.

1. No later than the initial receipt of CCR, the owner or operator of the CCR unit must place on or immediately adjacent to the CCR unit a permanent identification marker, at least six feet high showing the identification number of the CCR unit, if one has been assigned by the state, the name associated with the CCR unit and the name of the owner or operator of the CCR unit.

2. Periodic hazard potential classification assessments.

(i) The owner or operator of the CCR unit must conduct initial and periodic hazard potential classification assessments of the CCR unit according to the timeframes specified in 335-13-15-.04(5)(f). The owner or operator must document the hazard potential classification of each CCR unit as either a high hazard potential CCR surface impoundment, a significant hazard potential CCR surface impoundment, or a low hazard potential CCR surface impoundment. The owner or operator must also document the basis for each hazard potential classification.

(ii) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the initial hazard potential classification and each subsequent periodic classification specified in 335-13-15-.04(5)(a)2.(i) was conducted in accordance with the requirements of this section. This certification must be submitted to the Department.

3. Emergency Action Plan (EAP).

(i) Development of the plan. Prior to the initial receipt of CCR in the CCR unit, the owner or operator of a CCR unit determined to be either a high hazard potential CCR surface impoundment or a significant hazard potential CCR surface impoundment under 335-13-15-.04(5)(a)2. must prepare and maintain a written EAP. At a minimum, the EAP must:

(I) Define the events or circumstances involving the CCR unit that represent a safety emergency, along with a description of the procedures that will be followed to detect a safety emergency in a timely manner;

(II) Define responsible persons, their respective responsibilities, and notification procedures in the event of a safety emergency involving the CCR unit;

(III) Provide contact information of emergency responders;

(IV) Include a map which delineates the downstream area which would be affected in the event of a CCR unit failure and a physical description of the CCR unit; and

(V) Include provisions for an annual face-to-face meeting or exercise between representatives of the owner or operator of the CCR unit and the local emergency responders.

(ii) Amendment of the plan.

(I) The owner or operator of a CCR unit subject to the requirements of 335-13-15-.04(5)(a)3.(i) may amend the written EAP at any time provided the revised plan is placed in the facility's operating record as required by 335-13-15-.08(1)(f)6. The owner or operator must amend the written EAP whenever there is a change in conditions that would substantially affect the EAP in effect.

(II) The written EAP must be evaluated, at a minimum, every five years to ensure the information required in 335-13-15-.04(5)(a)3.(i) is accurate. As necessary, the EAP must be updated and a revised EAP placed in the facility's operating record as required by 335-13-15-.08(1)(f)6.

(iii) Changes in hazard potential classification.

(I) If the owner or operator of a CCR unit determines during a periodic hazard potential assessment that the CCR unit is no longer classified as either a high hazard potential CCR surface impoundment or a significant hazard potential CCR surface impoundment, then the owner or operator of the CCR unit is no longer subject to the requirement to prepare and maintain a written EAP beginning on the date the periodic hazard potential assessment documentation is placed in the facility's operating record as required by 335-13-15-.08(1)(f)5.

(II) If the owner or operator of a CCR unit classified as a low hazard potential CCR surface impoundment subsequently determines that the CCR unit is properly re-classified as either a high hazard potential CCR surface impoundment or a significant hazard potential CCR surface impoundment, then the owner or operator of the CCR unit must prepare a written EAP for the CCR unit as required by 335-13-15-.04(5)(a)3.(i) within six months of completing such periodic hazard potential assessment.

(iv) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the written EAP, and any subsequent amendment of the EAP, meets the requirements of 335-13-15-.04(5)(a)3. The EAP, as well as the certification from a qualified professional engineer, must be submitted to the Department for approval.

(v) Activation of the EAP. The EAP must be implemented once events or circumstances involving the CCR unit that represent a safety emergency are

detected, including conditions identified during periodic structural stability assessments, annual inspections, and inspections by a qualified person.

4. The CCR unit and surrounding areas must be designed, constructed, operated, and maintained with vegetated slopes of dikes. Deep rooted vegetation (roots that may grow below the six inch erosion layer) shall be prohibited as vegetative cover.

(b) The requirements of 335-13-15-.04(5)(c) through (e) apply to an owner or operator of a new CCR surface impoundment and any lateral expansion of a CCR surface impoundment that either:

1. Has a height of five feet or more and a storage volume of 20 acre-feet or more; or

2. Has a height of 20 feet or more.

(c) 1. No later than the initial receipt of CCR in the CCR unit, the owner or operator of a CCR unit must compile the design and construction plans for the CCR unit, which must include, to the extent feasible, the information specified in 335-13-15-.04(5)(c)1.(i) through (xi).

(i) The name and address of the person(s) owning or operating the CCR unit; the name associated with the CCR unit; and the identification number of the CCR unit if one has been assigned by the state.

(ii) The location of the CCR unit identified on the most recent U.S. Geological Survey (USGS) 7½ minute or 15 minute topographic quadrangle map, or a topographic map of equivalent scale if a USGS map is not available.

(iii) A statement of the purpose for which the CCR unit is being used.

(iv) The name and size in acres of the watershed within which the CCR unit is located.

(v) A description of the physical and engineering properties of the foundation and abutment materials on which the CCR unit is constructed.

(vi) A statement of the type, size, range, and physical and engineering properties of the materials used in constructing each zone or stage of the CCR unit; the method of site preparation and construction of each zone of the CCR unit; and the dates of construction of each successive stage of construction of the CCR unit.

(vii) At a scale that details engineering structures and appurtenances relevant to the design, construction, operation, and maintenance of the CCR unit, detailed dimensional drawings of the CCR unit, including a plan view and

cross sections of the length and width of the CCR unit, showing all zones, foundation improvements, drainage provisions, spillways, diversion ditches, outlets, instrument locations, and slope protection, in addition to the normal operating pool surface elevation and the maximum pool surface elevation following peak discharge from the inflow design flood, the expected maximum depth of CCR within the CCR surface impoundment, and any identifiable natural or manmade features that could adversely affect operation of the CCR unit due to malfunction or mis-operation.

(viii) A description of the type, purpose, and location of existing instrumentation.

(ix) Area-capacity curves for the CCR unit.

(x) A description of each spillway and diversion design feature and capacities and calculations used in their determination.

(xi) The construction specifications and provisions for surveillance, maintenance, and repair of the CCR unit.

(xii) Any record or knowledge of structural instability of the CCR unit.

2. Changes in the design and construction. If there is a significant change to any information compiled under 335-13-15-.04(5)(c)1., the owner or operator of the CCR unit must update the relevant information and place it in the facility's operating record as required by 335-13-15-.08(1)(f)13.

(d) Periodic structural stability assessments.

1. The owner or operator of the CCR unit must conduct initial and periodic structural stability assessments and document whether the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and CCR wastewater which can be impounded therein. The assessment must, at a minimum, document whether the CCR unit has been designed, constructed, operated, and maintained with:

(i) Stable foundations and abutments;

(ii) Adequate slope protection to protect against surface erosion, wave action, and adverse effects of sudden drawdown;

(iii) Dikes mechanically compacted to a density sufficient to withstand the range of loading conditions in the CCR unit;

(iv) Vegetated slopes of dikes and surrounding areas not to include deep rooted vegetation (roots that may grow below the six inch erosion layer);

(v) A single spillway or a combination of spillways configured as specified in 335-13-15-.04(5)(d)1.(v)(I). The combined capacity of all spillways must be designed, constructed, operated, and maintained to adequately manage flow during and following the peak discharge from the event specified in 335-13-15-.04(5)(d)1.(v)(II).

(I) All spillways must be either:

I. Of non-erodible construction and designed to carry sustained flows;
or

II. Earth- or grass-lined and designed to carry short-term, infrequent flows at non-erosive velocities where sustained flows are not expected.

(II) The combined capacity of all spillways must adequately manage flow during and following the peak discharge from a:

I. Probable maximum flood (PMF) for a high hazard potential CCR surface impoundment; or

II. 1000-year flood for a significant hazard potential CCR surface impoundment; or

III. 100-year flood for a low hazard potential CCR surface impoundment.

(vi) Hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit that maintain structural integrity and are free of significant deterioration, deformation, distortion, bedding deficiencies, sedimentation, and debris which may negatively affect the operation of the hydraulic structure; and

(vii) For CCR units with downstream slopes which can be inundated by the pool of an adjacent water body, such as a river, stream or lake, downstream slopes that maintain structural stability during low pool of the adjacent water body or sudden drawdown of the adjacent water body.

2. The periodic assessment described in 335-13-15-.04(5)(d)1. must identify any structural stability deficiencies associated with the CCR unit in addition to recommending corrective measures. If a deficiency or a release is identified during the periodic assessment, the owner or operator of a CCR unit must remedy the deficiency or release as soon as feasible and prepare a report detailing the corrective measures taken. This report must be submitted to the Department for review and approval.

3. The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the initial assessment and

each subsequent periodic assessment was conducted in accordance with the requirements of this section. This certification must be submitted to the Department.

(e) Periodic safety factor assessments.

1. The owner or operator must conduct an initial and periodic safety factor assessments for each CCR unit and document whether the calculated factors of safety for each CCR unit achieve the minimum safety factors specified in 335-13-15-.04(5)(e)1.(i) through (v) for the critical cross section of the embankment. The critical cross section is the cross section anticipated to be the most susceptible of all cross sections to structural failure based on appropriate engineering considerations, including loading conditions. The safety factor assessments must be supported by appropriate engineering calculations.

(i) The calculated static factor of safety under the end-of-construction loading condition must equal or exceed 1.30. The assessment of this loading condition is only required for the initial safety factor assessment and is not required for subsequent assessments.

(ii) The calculated static factor of safety under the long-term, maximum storage pool loading condition must equal or exceed 1.50.

(iii) The calculated static factor of safety under the maximum surcharge pool loading condition must equal or exceed 1.40.

(iv) The calculated seismic factor of safety must equal or exceed 1.00.

(v) For dikes constructed of soils that have susceptibility to liquefaction, the calculated liquefaction factor of safety must equal or exceed 1.20.

2. The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the initial assessment and each subsequent periodic assessment specified in 335-13-15-.04(5)(e)1. meets the requirements of this section. This certification must be submitted to the Department.

(f) Timeframes for periodic assessments.

1. Initial assessments. Except as provided by 335-13-15-.04(5)(f)2., the owner or operator of the CCR unit must complete the initial assessments required by 335-13-15-.04(5)(a)2., (d), and (e) prior to the initial receipt of CCR in the unit. The owner or operator has completed an initial assessment when the owner or operator has placed the assessment required by 335-13-15-.04(5)(a)2., (d), and (e) in the facility's operating record as required by 335-13-15-.08(1)(f)5., 10., and 12.

2. Frequency for conducting periodic assessments. The owner or operator of the CCR unit must conduct and complete the assessments required by 335-13-15-.04(5)(a)2., (d), and (e) every five years. The date of completing the initial assessment is the basis for establishing the deadline to complete the first subsequent assessment. The owner or operator may complete any required assessment prior to the required deadline provided the owner or operator places the completed assessment(s) into the facility's operating record within a reasonable amount of time. In all cases, the deadline for completing subsequent assessments is based on the date of completing the previous assessment. For purposes of this paragraph, the owner or operator has completed an assessment when the relevant assessment(s) required by 335-13-15-.04(5)(a)2., (d), and (e) has been placed in the facility's operating record as required by 335-13-15-.08(1)(f)5., 10., and 12.

3. Failure to document minimum safety factors during the initial assessment. Until the date an owner or operator of a CCR unit documents that the calculated factors of safety achieve the minimum safety factors specified in 335-13-15-.04(5)(e)1.(i) through (v), the owner or operator is prohibited from placing CCR in such unit.

4. Closure of the CCR unit. An owner or operator of a CCR unit who either fails to complete a timely periodic safety factor assessment or fails to demonstrate minimum safety factors as required by 335-13-15-.04(5)(e) is subject to the requirements of 335-13-15-.07(2)(c).

(g) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(f), the notification requirements specified in 335-13-15-.08(2)(f), and the internet requirements specified in 335-13-15-.08(3)(f).

Author: S. Scott Story, Heather M. Jones.

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335-13-15-.05 Operating Criteria.

(1) Air criteria.

(a) The owner or operator of a CCR landfill, CCR surface impoundment, or any lateral expansion of a CCR unit must adopt measures that will effectively minimize CCR from becoming airborne at the facility, including CCR fugitive dust originating from CCR units, roads, and other CCR management and material handling activities.

(b) CCR fugitive dust control plan. The owner or operator of the CCR unit must prepare and operate in accordance with a CCR fugitive dust control plan as specified in 335-13-15-.05(1)(b)1. through 7. This requirement applies in addition to, not in place of, any applicable standards under the Occupational Safety and Health Act.

1. The CCR fugitive dust control plan must identify and describe the CCR fugitive dust control measures the owner or operator will use to minimize CCR from becoming airborne at the facility. The owner or operator must select, and include in the CCR fugitive dust control plan, the CCR fugitive dust control measures that are most appropriate for site conditions, along with an explanation of how the measures selected are applicable and appropriate for site conditions. Examples of control measures that may be appropriate include: locating CCR inside an enclosure or partial enclosure; operating a water spray or fogging system; reducing fall distances at material drop points; using wind barriers, compaction, or vegetative covers; establishing and enforcing reduced vehicle speed limits; paving and sweeping roads; covering trucks transporting CCR; reducing or halting operations during high wind events; or applying a daily cover.

2. If the owner or operator operates a CCR landfill or any lateral expansion of a CCR landfill, the CCR fugitive dust control plan must include procedures to emplace CCR as conditioned CCR. Conditioned CCR means wetting CCR with water to a moisture content that will prevent wind dispersal, but will not result in free liquids. In lieu of water, CCR conditioning may be accomplished with an appropriate chemical dust suppression agent.

3. The CCR fugitive dust control plan must include procedures to log citizen complaints received by the owner or operator involving CCR fugitive dust events at the facility.

4. The CCR fugitive dust control plan must include a description of the procedures the owner or operator will follow to periodically assess the effectiveness of the control plan.

5. The owner or operator of a CCR unit must prepare an initial CCR fugitive dust control plan for the facility no later than October 19, 2015, or by

initial receipt of CCR in any CCR unit at the facility if the owner or operator becomes subject to this chapter after October 19, 2015. The owner or operator has completed the initial CCR fugitive dust control plan when the plan has been placed in the facility's operating record as required by 335-13-15-.08(1)(g)1.

6. Amendment of the plan. The owner or operator of a CCR unit subject to the requirements of this section may amend the written CCR fugitive dust control plan at any time provided the revised plan is placed in the facility's operating record as required by 335-13-15-.08(1)(g)1. The owner or operator must amend the written plan whenever there is a change in conditions that would substantially affect the written plan in effect, such as the construction and operation of a new CCR unit.

7. The owner or operator must obtain a certification from a qualified professional engineer that the initial CCR fugitive dust control plan, or any subsequent amendment of it, meets the requirements of this section. The CCR fugitive dust control plan, as well as the certification from a qualified professional engineer must be submitted to the Department for approval.

(c) Annual CCR fugitive dust control report. The owner or operator of a CCR unit must prepare an annual CCR fugitive dust control report that includes a description of the actions taken by the owner or operator to control CCR fugitive dust, a record of all citizen complaints, and a summary of any corrective measures taken. The initial annual report must be completed no later than 14 months after placing the initial CCR fugitive dust control plan in the facility's operating record. The deadline for completing a subsequent report is one year after the date of completing the previous report. The owner or operator has completed the annual CCR fugitive dust control report when the report has been submitted to the Department and placed in the facility's operating record as required by 335-13-15-.08(1)(g)2.

(d) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(g), the notification requirements specified in 335-13-15-.08(2)(g), and the internet requirements specified in 335-13-15-.08(3)(g).

(2) Run-on and run-off controls for CCR landfills.

(a) The owner or operator of an existing or new CCR landfill or any lateral expansion of a CCR landfill must design, construct, operate, and maintain:

1. A run-on control system to prevent flow onto the active and/or closed portion of the CCR unit during the peak discharge from a 24-hour, 25-year storm; and

2. A run-off control system from the active and/or closed portion of

the CCR unit to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(b) Run-off from the active and/or closed portion of the CCR unit must be handled in accordance with the surface water requirements under 335-13-415-.01(2)(b)4.(aj) and (bj).

(c) Run-on and run-off control system plan.

1. Content of the plan. The owner or operator must prepare initial and periodic run-on and run-off control system plans for the CCR unit according to the timeframes specified in 335-13-15-.05(2)(c)3. and 4. These plans must document how the run-on and run-off control systems have been designed and constructed to meet the applicable requirements of this section. Each plan must be supported by appropriate engineering calculations. The owner or operator has completed the initial run-on and run-off control system plan when the plan has been placed in the facility's operating record as required by 335-13-15-.08(1)(g)3.

2. Amendment of the plan. The owner or operator may amend the written run-on and run-off control system plan at any time provided the revised plan is placed in the facility's operating record as required by 335-13-15-.08(1)(g)3. The owner or operator must amend the written run-on and run-off control system plan whenever there is a change in conditions that would substantially affect the written plan in effect.

3. Timeframes for preparing the initial plan.

(i) Existing CCR landfills. The owner or operator of the CCR unit must prepare the initial run-on and run-off control system plan no later than October 17, 2016.

(ii) New CCR landfills and any lateral expansion of a CCR landfill. The owner or operator must prepare the initial run-on and run-off control system plan no later than the date of initial receipt of CCR in the CCR unit.

4. Frequency for revising the plan. The owner or operator of the CCR unit must prepare periodic run-on and run-off control system plans required by 335-13-15-.05(2)(c)1. every five years. The date of completing the initial plan is the basis for establishing the deadline to complete the first subsequent plan. The owner or operator may complete any required plan prior to the required deadline provided the owner or operator places the completed plan into the facility's operating record within a reasonable amount of time. In all cases, the deadline for completing a subsequent plan is based on the date of completing the previous plan. The owner or operator has completed a periodic run-on and run-off control system plan when the plan has been placed in the facility's operating record as required by 335-13-15-.08(1)(g)3.

5. The owner or operator must obtain a certification from a qualified professional engineer stating that the initial and periodic run-on and run-off control system plans meet the requirements of this section. The run-on and run-off control system plans, as well as the certification from a qualified professional engineer, must be submitted to the Department for approval.

(d) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(g), the notification requirements specified in 335-13-15-.08(2)(g), and the internet requirements specified in 335-13-15-.08(3)(g).

(3) Hydrologic and hydraulic capacity requirements for CCR surface impoundments.

(a) The owner or operator of an existing or new CCR surface impoundment or any lateral expansion of a CCR surface impoundment must design, construct, operate, and maintain an inflow design flood control system as specified in 335-13-15-.05(3)(a)1. and 2.

1. The inflow design flood control system must adequately manage flow into the CCR unit during and following the peak discharge of the inflow design flood specified in 335-13-15-.05(3)(a)3.

2. The inflow design flood control system must adequately manage flow from the CCR unit to collect and control the peak discharge resulting from the inflow design flood specified in 335-13-15-.05(3)(a)3.

3. The inflow design flood is:

(i) For a high hazard potential CCR surface impoundment, as determined under 335-13-15-.04(4)(a)2. or 335-13-15-.04(5)(a)2., the probable maximum flood;

(ii) For a significant hazard potential CCR surface impoundment, as determined under 335-13-15-.04(4)(a)2. or 335-13-15-.04(5)(a)2., the 1,000-year flood;

(iii) For a low hazard potential CCR surface impoundment, as determined under 335-13-15-.04(4)(a)2. or 335-13-15-.04(5)(a)2., the 100-year flood; or

(iv) For an incised CCR surface impoundment, the 25-year flood.

(b) Discharge from the CCR unit must be handled in accordance with the surface water requirements under 335-13-~~415~~-.01(2)(b)4.(~~ia~~) and (~~bii~~).

(c) Inflow design flood control system plan.

1. Content of the plan. The owner or operator must prepare initial and periodic inflow design flood control system plans for the CCR unit according to the timeframes specified in 335-13-15-.05(3)(c)3.and 4. These plans must document how the inflow design flood control system has been designed and constructed to meet the requirements of this section. Each plan must be supported by appropriate engineering calculations. The owner or operator of the CCR unit has completed the inflow design flood control system plan when the plan has been placed in the facility's operating record as required by 335-13-15-.08(1)(g)4.

2. Amendment of the plan. The owner or operator of the CCR unit may amend the written inflow design flood control system plan at any time provided the revised plan is placed in the facility's operating record as required by 335-13-15-.08(1)(g)4. The owner or operator must amend the written inflow design flood control system plan whenever there is a change in conditions that would substantially affect the written plan in effect.

3. Timeframes for preparing the initial plan.

(i) Existing CCR surface impoundments. The owner or operator of the CCR unit must prepare the initial inflow design flood control system plan no later than October 17, 2016.

(ii) New CCR surface impoundments and any lateral expansion of a CCR surface impoundment. The owner or operator must prepare the initial inflow design flood control system plan no later than the date of initial receipt of CCR in the CCR unit.

4. Frequency for revising the plan. The owner or operator must prepare periodic inflow design flood control system plans required by 335-13-15-.05(3)(c)1. every five years. The date of completing the initial plan is the basis for establishing the deadline to complete the first periodic plan. The owner or operator may complete any required plan prior to the required deadline provided the owner or operator places the completed plan into the facility's operating record within a reasonable amount of time. In all cases, the deadline for completing a subsequent plan is based on the date of completing the previous plan. The owner or operator has completed an inflow design flood control system plan when the plan has been placed in the facility's operating record as required by 335-13-15-.08(1)(g)4.

5. The owner or operator must obtain a certification from a qualified professional engineer stating that the initial and periodic inflow design flood control system plans meet the requirements of this section.

(d) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(g), the notification

requirements specified in 335-13-15-.08(2)(g), and the internet requirements specified in 335-13-15-.08(3)(g).

(4) Inspection requirements for CCR surface impoundments.

(a) Inspections by a qualified person.

1. All CCR surface impoundments and any lateral expansion of a CCR surface impoundment must be examined by a qualified person as follows:

(i) At intervals not exceeding seven days, inspect for any appearances of actual or potential structural weakness and other conditions which are disrupting or have the potential to disrupt the operation or safety of the CCR unit;

(ii) At intervals not exceeding seven days, inspect the discharge of all outlets of hydraulic structures which pass underneath the base of the surface impoundment or through the dike of the CCR unit for abnormal discoloration, flow or discharge of debris or sediment; and

(iii) At intervals not exceeding 30 days, monitor all CCR unit instrumentation.

(iv) The results of the inspection by a qualified person must be recorded in the facility's operating record as required by 335-13-15-.08(1)(g)5.

2. Timeframes for inspections by a qualified person.

(i) Existing CCR surface impoundments. The owner or operator of the CCR unit must initiate the inspections required under 335-13-15-.05(4)(a) no later than October 19, 2015.

(ii) New CCR surface impoundments and any lateral expansion of a CCR surface impoundment. The owner or operator of the CCR unit must initiate the inspections required under 335-13-15-.05(4)(a) upon initial receipt of CCR by the CCR unit.

(b) Annual inspections by a qualified professional engineer.

1. If the existing or new CCR surface impoundment or any lateral expansion of the CCR surface impoundment is subject to the periodic structural stability assessment requirements under 335-13-15-.04(4)(d) or 335-13-15-.04(5)(d), the CCR unit must additionally be inspected on a periodic basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection must, at a minimum, include:

(i) A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., CCR unit design and construction information required by 335-13-15-.04(4)(c)1. and 335-13-15-.04(5)(c)1., previous periodic structural stability assessments required under 335-13-15-.04(4)(d) and 335-13-15-.04(5)(d), the results of inspections by a qualified person, and results of previous annual inspections);

(ii) A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures; and

(iii) A visual inspection of any hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation.

2. Inspection report. The qualified professional engineer must prepare a report following each inspection that addresses the following:

(i) Any changes in geometry of the impounding structure since the previous annual inspection;

(ii) The location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection;

(iii) The approximate minimum, maximum, and present depth and elevation of the impounded water and CCR since the previous annual inspection;

(iv) The storage capacity of the impounding structure at the time of the inspection;

(v) The approximate volume of the impounded water and CCR at the time of the inspection;

(vi) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures; and

(vii) Any other change(s) which may have affected the stability or operation of the impounding structure since the previous annual inspection.

3. Timeframes for conducting the initial inspection.

(i) Existing CCR surface impoundments. The owner or operator of the CCR unit must complete the initial inspection required by 335-13-15-.05(4)(b)1. and 2. no later than January 19, 2016.

(ii) New CCR surface impoundments and any lateral expansion of a CCR surface impoundment. The owner or operator of the CCR unit must complete the initial annual inspection required by 335-13-15-.05(4)(b)1. and 2. no later than 14 months following the date of initial receipt of CCR in the CCR unit.

4. Frequency of inspections.

(i) Except as provided for in 335-13-15-.05(4)(b)4.(ii), the owner or operator of the CCR unit must conduct the inspection required by 335-13-15-.05(4)(b)1. and 2. on an annual basis. The date of completing the initial inspection report is the basis for establishing the deadline to complete the first subsequent inspection. Any required inspection may be conducted prior to the required deadline provided the owner or operator places the completed inspection report into the facility's operating record within a reasonable amount of time. In all cases, the deadline for completing subsequent inspection reports is based on the date of completing the previous inspection report. The owner or operator has completed an inspection when the inspection report has been placed in the facility's operating record as required by 335-13-15-.08(1)(g)6.

(ii) In any calendar year in which both the periodic inspection by a qualified professional engineer and the quinquennial (occurring every five years) structural stability assessment by a qualified professional engineer required by 335-13-15-.04(4)(d) and 335-13-15-.04(5)(d) are required to be completed, the annual inspection is not required, provided the structural stability assessment is completed during the calendar year. If the annual inspection is not conducted in a year as provided by this paragraph, the deadline for completing the next annual inspection is one year from the date of completing the quinquennial structural stability assessment.

5. If a deficiency or release is identified during an inspection, the owner or operator must remedy the deficiency or release as soon as feasible and prepare a report detailing the corrective measures taken. This report must be submitted to the Department for review and approval.

(c) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(g), the notification requirements specified in 335-13-15-.08(2)(g), and the internet requirements specified in 335-13-15-.08(3)(g).

(5) Inspection requirements for CCR landfills.

(a) Inspections by a qualified person.

1. All CCR landfills and any lateral expansion of a CCR landfill must be examined by a qualified person as follows:

(i) At intervals not exceeding seven days, inspect for any appearances of actual or potential structural weakness and other conditions which are disrupting or have the potential to disrupt the operation or safety of the CCR unit; and

(ii) The results of the inspection by a qualified person must be recorded in the facility's operating record as required by 335-13-15-.08(1)(g)8.

2. Timeframes for inspections by a qualified person.

(i) Existing CCR landfills. The owner or operator of the CCR unit must initiate the inspections required under 335-13-15-.05(5)(a) no later than October 19, 2015.

(ii) New CCR landfills and any lateral expansion of a CCR landfill. The owner or operator of the CCR unit must initiate the inspections required under 335-13-15-.05(5)(a) upon initial receipt of CCR by the CCR unit.

(b) Annual inspections by a qualified professional engineer.

1. Existing and new CCR landfills and any lateral expansion of a CCR landfill must be inspected on a periodic basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection must, at a minimum, include:

(i) A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., the results of inspections by a qualified person, and results of previous annual inspections); and

(ii) A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit.

2. Inspection report. The qualified professional engineer must prepare a report following each inspection that addresses the following:

(i) Any changes in geometry of the structure since the previous annual inspection;

(ii) The approximate volume of CCR contained in the unit at the time of the inspection;

(iii) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit; and

(iv) Any other change(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection.

3. Timeframes for conducting the initial inspection.

(i) Existing CCR landfills. The owner or operator of the CCR unit must complete the initial inspection required by 335-13-15-.05(5)(b)1. and 2. no later than January 19, 2016.

(ii) New CCR landfills and any lateral expansion of a CCR landfill. The owner or operator of the CCR unit must complete the initial annual inspection required by 335-13-15-.05(5)(b)1. and 2. no later than 14 months following the date of initial receipt of CCR in the CCR unit.

4. Frequency of inspections. The owner or operator of the CCR unit must conduct the inspection required by 335-13-15-.05(5)(b)1. and 2. on an annual basis. The date of completing the initial inspection report is the basis for establishing the deadline to complete the first subsequent inspection. Any required inspection may be conducted prior to the required deadline provided the owner or operator places the completed inspection report into the facility's operating record within a reasonable amount of time. In all cases, the deadline for completing subsequent inspection reports is based on the date of completing the previous inspection report. The owner or operator has completed an inspection when the inspection report has been placed in the facility's operating record as required by 335-13-15-.08(1)(g)9.

5. If a deficiency or release is identified during an inspection, the owner or operator must remedy the deficiency or release as soon as feasible and prepare a report detailing the corrective measures taken. This report must be submitted to the Department for review and approval.

(c) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(g), the notification requirements specified in 335-13-15-.08(2)(g), and the internet requirements specified in 335-13-15-.08(3)(g).

(6) General operational standards for CCR units.

(a) The operation and use of the CCR unit shall be as stipulated in the approved plans and the permit.

(b) The disposal area shall be identified with a sufficient number of permanent markers which are at least visible from one marker to the next.

(c) Open Burning.

1. Open burning at any CCR unit is prohibited unless approved by the Department as follows:

(i) Clearing debris at the CCR unit such as trees and stumps may be burned if prior approval is received from the Department and the Alabama Forestry Commission.

(ii) If approved, burning shall not occur within 200 feet of existing disposal operations unless otherwise specified by the Department and such burning shall not cause a public nuisance or pose a threat to public health.

2. The person or agency requesting permission to burn shall apply in writing to the Department, outlining why a burn request should be granted. This request should include, but not be limited to, specifically what areas will be utilized, types of waste to be burned, the projected starting and completion dates for the project, and the projected days and hours of operation.

~~(d) The owner or operator of a CCR landfill unit must prevent the disposal of free liquids in the CCR landfill.~~

(de) Adequate equipment shall be provided to ensure continued operation in accordance with the permit and regulations.

~~(ef) The owner or operator of the facility must control public access and prevent unauthorized vehicular traffic and illegal dumping of wastes by using artificial barriers, natural barriers, or both, as appropriate to protect human health and the environment. The site shall be adequately secured using artificial barriers, natural barriers, or both to prevent entry of unauthorized vehicular traffic.~~

(fg) Adequate personnel shall be provided to ensure continued and smooth operation of the facility.

(gh) Provisions shall be made for disposal activities in adverse weather conditions.

(hi) Environmental monitoring and treatment structures shall be clearly marked and identified, protected and maintained in good repair and shall be easily accessible.

(i) All CCR material to be disposed shall be properly measured or weighed prior to disposal unless otherwise approved by the Department. The average daily volume of waste received at a CCR unit shall be calculated by dividing the total month's receipts by the total number of days in the reporting month. Records shall be maintained on the average daily volume of waste received at the CCR unit. A quarterly report which summarizes the daily volumes, with volumes received reported in a format specified and approved by the Department, shall be submitted to the Department and maintained on file in the operating record of the facility by the

permittee. If the average daily volume is exceeded for two or more consecutive quarters, by 20 percent or 100 tons/day, whichever is less, a modification would be required to adjust the permitted average daily volume.

(j) The CCR unit shall be operated in such a manner that there will be no water pollution or unauthorized discharge.

1. Any discharge resulting from a CCR unit or practice may require:

(i) A National Pollutant Discharge Elimination System (NPDES) permit under the Alabama Water Pollution Control Act as issued by the Department.

(ii) A dredge or fill permit from the Army Corps of Engineers as required under Section 404 of the Clean Water Act, as amended; or

(iii) That a non-point source of surface waters does not violate an area wide or statewide water quality management plan that has been approved under the Alabama Water Pollution Control Act.

2. The groundwater shall not be contaminated as specified by this chapter.

(k) Notwithstanding this rule, additional requirements for operating and maintaining a CCR unit may be imposed by the Department, as deemed necessary, to comply with this Division.

(7) General operational standards for CCR landfills. In addition the requirements of 335-13-15-.05(6), the following also apply to CCR landfills:

(a) Daily, weekly, or some other periodic cover shall be required at all CCR landfill units, as determined by the Department.

1. The suitability and volume of any soils for daily, intermediate and final cover requirements shall be determined by soil borings and analysis.

2. Any proposal to use alternative cover systems shall be submitted to and approved by the Department prior to implementation.

3. Alternative cover shall be approved by the Department in compliance with federal law and the USEPA rules of guidance to achieve a level of performance equal to or greater than earthen cover material.

(b) All waste shall be covered as follows:

1. A minimum of six inches of compacted earth or other alternative cover material shown to achieve a level of performance equal to or greater than earthen cover material and that is approved by the Department shall be added at the conclusion of each week's operation or as otherwise specified by the Department.

2. In the event that erosion develops on previously covered disposal areas, or when covered waste otherwise becomes exposed, cover must be re-applied to comply with the minimum cover requirements of subparagraph (7)(b)1. of this section.

3. Final closure shall be carried out in accordance with 335-13-15-.07.

(c) All waste shall be thoroughly spread in layers two feet or less in thickness and thoroughly compacted weekly with adequate equipment prior to placing additional layers of waste or placing the weekly cover as specified in 335-13-15-.05(7)(b)1., unless otherwise approved by the Department. Waste which cannot be managed by equipment in this manner shall be managed in a manner approved by the Department.

(d) All waste shall be placed onto an appropriate slope not to exceed 4 to 1 (25%) or as approved by the Department.

(e) ~~(d)~~—The owner or operator of a CCR landfill unit must prevent the disposal of free liquids in the CCR landfill.

Author: Eric L. Sanderson, Heather M. Jones

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335-13-15-.06 Groundwater Monitoring and Corrective Action.

(1) Applicability.

(a) All CCR landfills, CCR surface impoundments, and lateral expansions of CCR units are subject to the groundwater monitoring and corrective action requirements under 335-13-15-.06(1) through 335-13-15-.06(9).

(b) Initial timeframes.

1. Existing CCR landfills and existing CCR surface impoundments. No later than October 17, 2017, the owner or operator of the CCR unit must be in compliance with the following groundwater monitoring requirements:

(i) Install the groundwater monitoring system as required by 335-13-15-.06(2);

(ii) Develop the groundwater sampling and analysis program to include selection of the statistical procedures to be used for evaluating groundwater monitoring data as required by 335-13-15-.06(4);

(iii) Initiate the detection monitoring program to include obtaining a minimum of eight independent samples for each background and downgradient well as required by 335-13-15-.06(5)(b); and

(iv) Begin evaluating the groundwater monitoring data for statistically significant increases over background levels for the constituents listed in Appendix III as required by 335-13-15-.06(5).

2. New CCR landfills, new CCR surface impoundments, and all lateral

expansions of CCR units. Prior to initial receipt of CCR by the CCR unit, the owner or operator must be in compliance with the groundwater monitoring requirements specified in 335-13-15-.06(1)(b)1.(i) and (ii). In addition, the owner or operator of the CCR unit must initiate the detection monitoring program to include obtaining a minimum of eight independent samples for each background well as required by 335-13-15-.06(5)(b).

(c) Once a groundwater monitoring system and groundwater monitoring program has been established at the CCR unit as required by this chapter, the owner or operator must conduct groundwater monitoring and, if necessary, corrective action throughout the active life and post-closure care period of the CCR unit.

(d) In the event of a release from a CCR unit, the owner or operator must immediately take all necessary measures to control the source(s) of releases so as to reduce or eliminate, to the maximum extent feasible, further releases of contaminants into the environment. The owner or operator of the CCR unit must comply with all applicable requirements in 335-13-15-.06(7), 335-13-15-.06(8), and 335-13-15-.06(9).

(e) Annual groundwater monitoring and corrective action report. For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this chapter, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. The owner or operator has prepared the annual report when the report is submitted to the Department and placed in the facility's operating record as required by 335-13-15-.08(1)(h)1. At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:

1. A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;

2. Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;

3. In addition to all the monitoring data obtained under 335-13-15-.06(1) through 335-13-15-.06(9), a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;

4. A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected as a statistically significant increase over background levels); and

5. Other information required to be included in the annual report as specified in 335-13-15-.06(1) through 335-13-15-.06(9).

6. A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all of the following:

(i) At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in 335-13-15-.06(5) or the assessment monitoring program in 335-13-15-.06(6);

(ii) At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in 335-13-15-.06(5) or the assessment monitoring program in 335-13-15-.06(6);

(iii) If it was determined that there was a statistically significant increase over background for one or more constituents listed in Appendix III pursuant to 335-13-15-.06(5)(e):

I. Identify those constituents listed in Appendix III and the names of the monitoring wells associated with such an increase; and

II. Provide the date when the assessment monitoring program was initiated for the CCR unit.

(iv) If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in Appendix IV pursuant to 335-13-15-.06(6)(g) include all of the following:

I. Identify those constituents listed in Appendix IV and the names of the monitoring wells associated with such an increase;

II. Provide the date when the assessment of corrective measures was initiated for the CCR unit;

III. Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit; and

IV. Provide the date when the assessment of corrective measures was completed for the CCR unit.

(v) Whether a remedy was selected pursuant to 335-13-15-.06(8) during the current annual reporting period, and if so, the date of remedy selection; and

(vi) Whether remedial activities were initiated or are ongoing pursuant to 335-13-15-.06(9) during the current annual reporting period.

(f) Semi-annual groundwater monitoring report. The owner or operator of a CCR unit must submit a semi-annual groundwater monitoring report to the Department to coincide with the semi-annual sampling event. The report shall be certified by a qualified professional engineer. The semi-annual report must document the status of the groundwater monitoring program for the CCR unit. The owner or operator has prepared the semi-annual report when the report is submitted to the Department and placed in the facility's operating record as required by 335-13-15-.08(1)(h)14. At a minimum, the semi-annual groundwater monitoring report must contain the following information, to the extent available:

1. A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;

2. Identification of any monitoring wells that were installed or decommissioned during the preceding semi-annual period;

3. In addition to all the monitoring data obtained under 335-13-15-.06(1) through 335-13-15-.06(9), a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs; and

4. A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected as a statistically significant increase over background levels).

(g) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(h), the notification requirements specified in 335-13-15-.08(2)(h), and the internet requirements specified in 335-13-15-.08(3)(h).

(2) Groundwater monitoring systems.

(a) Performance standard. The owner or operator of a CCR unit must install a groundwater monitoring system that consists of a sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer that:

1. Accurately represent the quality of background groundwater that has not been affected by leakage from a CCR unit. A determination of background quality may include sampling of wells that are not hydraulically upgradient of the CCR management area where:

(i) Hydrogeologic conditions do not allow the owner or operator of the CCR unit to determine what wells are hydraulically upgradient; or

(ii) Sampling at other wells will provide an indication of background groundwater quality that is as representative or more representative than that provided by the upgradient wells; and

2. Accurately represent the quality of groundwater passing the waste boundary of the CCR unit. The downgradient monitoring system must be installed at the waste boundary that ensures detection of groundwater contamination in the uppermost aquifer. All potential contaminant pathways must be monitored.

(b) The number, spacing, and depths of monitoring systems shall be determined based upon site-specific technical information that must include thorough characterization of:

1. Aquifer thickness, groundwater flow rate, groundwater flow direction, including seasonal and temporal fluctuations in groundwater flow; and

2. Saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer, including, but not limited to, thicknesses, stratigraphy, lithology, hydraulic conductivities, porosities and effective porosities.

3. The number, spacing, and depth of the monitoring system developed under 335-13-15-.06(2) shall be certified by a qualified professional engineer and submitted to the Department for approval. Within 14 days of the Department's approval, the owner or operator must notify the Department that the certification has been placed in the facility operating record.

(c) The groundwater monitoring system must include, at a minimum, the number of monitoring wells necessary to meet the performance standards specified in 335-13-15-.06(2)(a), based on the site-specific information specified in 335-13-15-.06(2)(b). The groundwater monitoring system must contain:

1. A minimum of one upgradient and three downgradient monitoring wells; and
2. Additional monitoring wells as necessary to accurately represent the quality of background groundwater that has not been affected by leakage from the CCR unit and the quality of groundwater passing the waste boundary of the CCR unit.

(d) The owner or operator of multiple CCR units may install a multiunit groundwater monitoring system instead of separate groundwater monitoring systems for each CCR unit.

1. The multiunit groundwater monitoring system must be equally as capable of detecting monitored constituents at the waste boundary of the CCR unit as the individual groundwater monitoring system specified in 335-13-15-.06(2)(a) through (c) for each CCR unit based on the following factors:

- (i) Number, spacing, and orientation of each CCR unit;
- (ii) Hydrogeologic setting;
- (iii) Site history; and
- (iv) Engineering design of the CCR unit.

2. [Reserved]

(e) Well design and construction.

1. Groundwater monitoring wells shall be designed and constructed in accordance with the following reference: "Design and Installation of Groundwater Monitoring Wells in Aquifers", ASTM Subcommittee D18.21 on Groundwater Monitoring or otherwise as specifically approved by the Department.

2. Plans for groundwater monitoring well location, design, construction and/or abandonment shall be submitted to the Department for review and approval prior to installation or abandonment.

3. Monitoring wells must be cased in a manner that maintains the integrity of the monitoring well borehole. This casing must be screened or perforated and packed with gravel or sand, where necessary, to enable collection of groundwater samples. The annular space (i.e., the space between the borehole

and well casing) above the sampling depth must be sealed to prevent contamination of samples and the groundwater.

4. The owner or operator of the CCR unit must document and include in the operating record the design, installation, development, and decommissioning of any monitoring wells, piezometers and other measurement, sampling, and analytical devices. The qualified professional engineer must be given access to this documentation when completing the groundwater monitoring system certification required under 335-13-15-.06(2)(f).

5. The monitoring wells, piezometers, and other measurement, sampling, and analytical devices must be operated and maintained so that they perform to the design specifications throughout the life of the monitoring program.

(f) The owner or operator must obtain a certification from a qualified professional engineer stating that the groundwater monitoring system has been designed and constructed to meet the requirements of this section. If the groundwater monitoring system includes the minimum number of monitoring wells specified in 335-13-15-.06(2)(c)1., the certification must document the basis supporting this determination. Once completed, the certification must be submitted to the Department and placed in the operating record in accordance with 335-13-15-.08(1)(h)3.

(g) Abandoned wells and bore holes shall be abandoned in accordance with the following procedures in order to prevent contamination of groundwater resources. A plan of abandonment must be submitted and approved by the Department prior to implementing abandonment of any well.

1. A well shall be measured for depth prior to sealing to ensure that it is free from any obstructions that may interfere with sealing operations.

2. Where feasible, wells shall be completely filled with neat cement. If the well cannot be completely filled, the sealing materials for the top 20 feet must be neat cement and no material that could impart taste, odor, or toxic components to water may be used in the sealing process.

3. Liner pipe shall be removed from each well in order to ensure placement of an effective seal. If the liner pipe cannot be readily removed, it shall be perforated to ensure that proper sealing is obtained.

4. Concrete, cement grout, or neat cement shall be used as primary sealing materials and shall be placed from the bottom upwards using methods that will avoid segregation or dilution of material.

5. Complete, accurate records of the abandonment procedure shall be kept for each well abandoned. The record of abandonment shall include, at a minimum,

the depth of each layer of all sealing and backfilling materials, the quantity of sealing materials used, measurements of static water levels and depth, and any changes made in the well during the sealing. A copy of these records shall be submitted to the Department and a copy placed in the operating record.

(h) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(h), the notification requirements specified in 335-13-15-.08(2)(h), and the internet requirements specified in 335-13-15-.08(3)(h).

(3) [Reserved]

(4) Groundwater sampling and analysis requirements.

(a) The groundwater monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of groundwater quality at the background and downgradient wells required by 335-13-15-.06(2). The owner or operator of the CCR unit must develop, and submit to the Department for approval, a sampling and analysis program that includes procedures and techniques for:

1. Sample collection;
2. Sample preservation and shipment;
3. Analytical procedures;
4. Chain of custody control; and
5. Quality assurance and quality control.

(b) The groundwater monitoring program must include sampling and analytical methods that are appropriate for groundwater sampling and that accurately measure hazardous constituents and other monitoring parameters in groundwater samples. For purposes of 335-13-15-.06(1) through 335-13-15-.06(9), the term constituent refers to both hazardous constituents and other monitoring parameters listed in either Appendix III or IV.

(c) Groundwater elevations must be measured in each well immediately prior to purging, each time groundwater is sampled. The owner or operator of the CCR unit must determine the rate and direction of groundwater flow each time groundwater is sampled. Groundwater elevations in wells which monitor the same CCR management area must be measured within a period of time short enough to avoid temporal variations in groundwater flow which could preclude accurate determination of groundwater flow rate and direction.

(d) The owner or operator of the CCR unit must establish background

groundwater quality in a hydraulically upgradient or background well(s) for each of the constituents required in the particular groundwater monitoring program that applies to the CCR unit as determined under 335-13-15-.06(5)(a) or 335-13-15-.06(6)(a). Background groundwater quality may be established at wells that are not located hydraulically upgradient from the CCR unit if it meets the requirements of 335-13-15-.06(2)(a)1.

(e) The number of samples collected when conducting detection monitoring and assessment monitoring (for both downgradient and background wells) must be consistent with the statistical procedures chosen under 335-13-15-.06(4)(f) and the performance standards under 335-13-15-.06(4)(g). The sampling procedures shall be those specified under 335-13-15-.06(5)(b) through (d) for detection monitoring, 335-13-15-.06(6)(b) through (d) for assessment monitoring, and 335-13-15-.06(7)(b) for corrective action.

(f) The owner or operator of the CCR unit must specify in writing to the Department and place in the operating record one of the statistical methods specified in 335-13-15-.06(4)(f)1. through 5. to be used in evaluating groundwater monitoring data for each specified constituent. The statistical test chosen shall be conducted separately for each constituent in each monitoring well.

1. A parametric analysis of variance followed by multiple comparison procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

2. An analysis of variance based on ranks followed by multiple comparison procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

3. A tolerance or prediction interval procedure, in which an interval for each constituent is established from the distribution of the background data and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

4. A control chart approach that gives control limits for each constituent.

5. Another statistical test method that meets the performance standards of 335-13-15-.06(4)(g). The owner or operator must place a justification for this alternative in the operating record and submit it to the Department for approval to use this alternative method. The justification must demonstrate that the alternative method meets the performance standards of 335-13-15-.06(4)(g).

6. The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the selected statistical method is appropriate for evaluating the groundwater monitoring data for the CCR management area. The certification must include a narrative description of the statistical method selected to evaluate the groundwater monitoring data.

(g) Any statistical method chosen under 335-13-15-.06(4)(f) shall comply with the following performance standards, as appropriate, based on the statistical test method used:

1. The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of constituents. Normal distributions of data values shall use parametric methods. Non-normal distributions shall use non-parametric methods. If the distribution of the constituents is shown by the owner or operator of the CCR unit to be inappropriate for a normal theory test, then the data must be transformed or a distribution-free (non-parametric) theory test must be used. If the distributions for the constituents differ, more than one statistical method may be needed.

2. If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparison procedure is used, the Type I experiment wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.

3. If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values shall be such that this approach is at least as effective as any other approach in this section for evaluating groundwater data. The parameter values shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

4. If a tolerance interval or a predictional interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be such that this approach is at least as effective as any other approach in this section for evaluating groundwater data. These parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

5. The statistical method must account for data below the limit of detection with one or more statistical procedures that shall be at least as effective as any other approach in this section for evaluating groundwater data. Any practical quantitation limit that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

6. If necessary, the statistical method must include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

(h) The owner or operator of the CCR unit must determine and certify in writing to the Department if there is a statistically significant increase over background values or the groundwater protection standard for each constituent required in the particular groundwater monitoring program that applies to the CCR unit, as determined under 335-13-15-.06(5)(a) or 335-13-15-.06(6)(a).

1. In determining whether a statistically significant increase has occurred, the owner or operator must compare the groundwater quality of each constituent at each monitoring well designated pursuant to 335-13-15-.06(2)(a)2. or (d)1. to the background value of that constituent when in detection monitoring or to the groundwater protection standard when in assessment monitoring, according to the statistical procedures and performance standards specified under 335-13-15-.06(4)(f) and (g).

2. Within 90 days after completing sampling and analysis, the owner or operator must determine whether there has been a statistically significant increase over background when in detection monitoring or to the groundwater protection standard when in assessment monitoring for any constituent at each monitoring well.

3. If a statistically significant increase is detected over background groundwater quality when in detection monitoring or over the groundwater protection standard when in assessment monitoring, the owner or operator must notify the Department in writing within 14 days of this event.

(i) The owner or operator must measure "total recoverable metals" concentrations in measuring groundwater quality. Measurement of total recoverable metals captures both the particulate fraction and dissolved fraction of metals in natural waters. Groundwater samples shall not be field-filtered prior to analysis.

(j) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(h), the notification requirements specified in 335-13-15-.08(2)(h), and the internet requirements

specified in 335-13-15-.08(3)(h).

(5) Detection monitoring program.

(a) The owner or operator of a CCR unit must conduct detection monitoring at all groundwater monitoring wells consistent with this section. At a minimum, a detection monitoring program must include groundwater monitoring for the constituents listed in Appendix III of this chapter.

(b) Except as provided in 335-13-15-.06(5)(d), the monitoring frequency for the constituents listed in Appendix III shall be at least semiannual during the active life of the CCR unit and the post-closure period. For existing CCR landfills and existing CCR surface impoundments, a minimum of eight independent samples from each background and downgradient well must be collected and analyzed for the constituents listed in Appendix III and Appendix IV, for the purpose of establishing background concentrations no later than October 17, 2017. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, a minimum of eight independent samples for each background well must be collected and analyzed for the constituents listed in Appendix III and Appendix IV for the purpose of establishing background concentrations during the first six months of sampling.

(c) The number of samples collected and analyzed for each background well and downgradient well during subsequent semiannual sampling events must be consistent with 335-13-15-.06(4)(e), and must account for any unique characteristics of the site, but must be at least one sample from each background and downgradient well.

(d) The owner or operator of a CCR unit may demonstrate the need for an alternative monitoring frequency for repeated sampling and analysis for constituents listed in Appendix III during the active life and the post-closure care period based on the availability of groundwater. If there is not adequate groundwater flow to sample wells semiannually, the alternative frequency shall be no less than annual. The need to vary monitoring frequency must be evaluated on a site-specific basis. The demonstration must be supported by, at a minimum, the information specified in 335-13-15-.06(5)(d)1. and 2.

1. Information documenting that the need for less frequent sampling. The alternative frequency must be based on consideration of the following factors:

- (i) Lithology of the aquifer and unsaturated zone;
- (ii) Hydraulic conductivity of the aquifer and unsaturated zone; and
- (iii) Groundwater flow rates.

2. Information documenting that the alternative frequency will be no less effective in ensuring that any leakage from the CCR unit will be discovered within a timeframe that will not materially delay establishment of an assessment monitoring program.

3. The owner or operator must obtain a certification from a qualified professional engineer stating that the demonstration for an alternative groundwater sampling and analysis frequency meets the requirements of this section. The owner or operator must submit the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer to the Department for approval. If Departmental approval is granted, the owner or operator must place the demonstration in the annual groundwater monitoring and corrective action report required by 335-13-15-.06(1)(e).

(e) If the owner or operator of the CCR unit determines, pursuant to 335-13-15-.06(4)(h) that there is a statistically significant increase over background levels for one or more of the constituents listed in Appendix III at any monitoring well at the waste boundary specified under 335-13-15-.06(2)(a)2., the owner or operator must:

1. Except as provided for in 335-13-15-.06(5)(e)2., within 90 days of detecting a statistically significant increase over background levels for any constituent, establish an assessment monitoring program meeting the requirements of 335-13-15-.06(6).

2. The owner or operator may demonstrate that a source other than the CCR unit caused the statistically significant increase over background levels for a constituent or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. The owner or operator must complete the written demonstration within 90 days of detecting a statistically significant increase over background levels. A report documenting this demonstration must be certified by a qualified professional engineer verifying the accuracy of the information in the report, and placed in the operating record. If a successful demonstration is completed within the 90-day period, the owner or operator of the CCR unit may continue with a detection monitoring program under this section, subject to subsequent review and approval from the Department. If a successful demonstration is not completed within the 90-day period, the owner or operator of the CCR unit must initiate an assessment monitoring program as required under 335-13-15-.06(6). The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by 335-13-15-.06(1)(e), in addition to the certification by a qualified professional engineer.

3. The owner or operator of a CCR unit must prepare a notification stating that an assessment monitoring program has been established. The owner

or operator has completed the notification when the notification is placed in the facility's operating record as required by 335-13-15-.08(1)(h)5; and

4. Must, within 14 days of this finding, place a notice in the operating record, and submit a copy of this notice to the Department, stating that a statistically significant increase over background has been detected and indicate which constituents have shown statistically significant changes from background levels.

(f) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(h), the notification requirements specified in 335-13-15-.08(2)(h), and the internet requirements specified in 335-13-15-.08(3)(h).

(6) Assessment monitoring program.

(a) Assessment monitoring is required whenever a statistically significant increase over background levels has been detected for one or more of the constituents listed in Appendix III.

(b) Within 90 days of triggering an assessment monitoring program, and annually thereafter, the owner or operator of the CCR unit must sample and analyze the groundwater for all constituents listed in Appendix III and Appendix IV. The number of samples collected and analyzed for each well during each sampling event must be consistent with 335-13-15-.06(4)(e), and must account for any unique characteristics of the site, but must be at least one sample from each well.

(c) The owner or operator of a CCR unit may demonstrate the need for an alternative monitoring frequency for repeated sampling and analysis for constituents listed in Appendix III and Appendix IV during the active life and the post-closure care period based on the availability of groundwater. If there is not adequate groundwater flow to sample wells semiannually, the alternative frequency shall be no less than annual. The need to vary monitoring frequency must be evaluated on a site-specific basis. The demonstration must be supported by, at a minimum, the information specified in 335-13-15-.06(6)(c)1. and 2.

1. Information documenting that the need for less frequent sampling. The alternative frequency must be based on consideration of the following factors:

- (i) Lithology of the aquifer and unsaturated zone;
- (ii) Hydraulic conductivity of the aquifer and unsaturated zone;
- (iii) Groundwater flow rates; and

(iv) Nature (fate and transport) of any constituents detected in response to this rule.

2. Information documenting that the alternative frequency will be no less effective in ensuring that any leakage from the CCR unit will be discovered within a timeframe that will not materially delay the initiation of any necessary remediation measures.

3. The owner or operator must obtain a certification from a qualified professional engineer stating that the demonstration for an alternative groundwater sampling and analysis frequency meets the requirements of this section. The owner or operator must submit the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer to the Department for approval. If Departmental approval is granted, the owner or operator must place the demonstration in the annual groundwater monitoring and corrective action report required by 335-13-15-.06(1)(e).

(d) After obtaining the results from the initial and subsequent sampling events required in 335-13-15-.06(6)(b), the owner or operator must:

1. Within 14 days, place a notice in the operating record and submit a copy of this notice to the Department identifying the Appendix IV constituents that have been detected;

2. Within 90 days of obtaining the results, and on at least a semiannual basis thereafter, resample all wells that were installed pursuant to the requirements of 335-13-15-.06(2), conduct analyses for all parameters in Appendix III and for those constituents in Appendix IV that are detected in response to 335-13-15-.06(6)(b), and record their concentrations in the facility operating record. The number of samples collected and analyzed for each background well and downgradient well during subsequent semiannual sampling events must be consistent with 335-13-15-.06(4)(e), and must account for any unique characteristics of the site, but must be at least one sample from each background and downgradient well;

3. Establish groundwater protection standards for all Appendix IV constituents detected pursuant to 335-13-15-.06(6)(b) or (d). The groundwater protection standards must be established in accordance with 335-13-15-.06(6)(h); and

4. Include the recorded concentrations required by 335-13-15-.06(6)(d)2., identify the background concentrations established under 335-13-15-.06(5)(b), and identify the groundwater protection standards established under 335-13-15-.06(6)(d)3. in the annual groundwater monitoring and corrective action report required by 335-13-15-.06(1)(e) and the semi-annual

groundwater monitoring report required by 335-13-15-.06(1)(f).

(e) If the concentrations of all constituents listed in Appendix III and Appendix IV are shown to be at or below background values, using the statistical procedures in 335-13-15-.06(4)(g), for two consecutive sampling events, the owner or operator may return to detection monitoring of the CCR unit. The owner or operator must prepare a notification stating that detection monitoring is resuming for the CCR unit. The owner or operator has completed the notification when the notification is placed in the facility's operating record as required by 335-13-15-.08(1)(h)7. and submitted to the Department.

(f) If the concentrations of any constituent in Appendix III and Appendix IV are above background values, but all concentrations are below the groundwater protection standard established under 335-13-15-.06(6)(h), using the statistical procedures in 335-13-15-.06(4)(g), the owner or operator must continue assessment monitoring in accordance with this section.

(g) If one or more constituents in Appendix IV are detected at statistically significant levels above the groundwater protection standard established under 335-13-15-.06(6)(h) in any sampling event, the owner or operator must prepare a notification identifying the constituents in Appendix IV that have exceeded the groundwater protection standard. The owner or operator has completed the notification when the notification is placed in the facility's operating record as required by 335-13-15-.08(1)(h)8. The owner or operator of the CCR unit also must:

1. Submit a copy of the notification to the Department and all appropriate local government officials, if the facility is subject to the local host government approval requirements as specified in 335-13-5-.02(a) as provided in the Code of Alabama 1975, § 22-27-48 and 48.1; and

2. Characterize the nature and extent of the release and any relevant site conditions that may affect the remedy ultimately selected. The characterization must be sufficient to support a complete and accurate assessment of the corrective measures necessary to effectively clean up all releases from the CCR unit pursuant to 335-13-15-.06(7). Characterization of the release includes the following minimum measures:

- (i) Install additional monitoring wells necessary to define the contaminant plume(s);

- (ii) Collect data on the nature and estimated quantity of material released including specific information on the constituents listed in Appendix IV and the levels at which they are present in the material released;

- (iii) Install at least one additional monitoring well at the facility boundary in the direction of contaminant migration and sample this well in

accordance with 335-13-15-.06(6)(d)2.; and

(iv) Sample all wells in accordance with 335-13-15-.06(6)(d)2. to characterize the nature and extent of the release.

3. Notify all persons who own the land or reside on the land that directly overlies any part of the plume of contamination if contaminants have migrated off-site if indicated by sampling of wells in accordance with 335-13-15-.06(6)(g)2. The owner or operator has completed the notifications when they are placed in the facility's operating record as required by 335-13-15-.08(1)(h)8.

4. Within 90 days of finding that any of the constituents listed in Appendix IV have been detected at a statistically significant level exceeding the groundwater protection standards the owner or operator must either:

(i) Initiate an assessment of corrective measures as required by 335-13-15-.06(7); or

(ii) Demonstrate that a source other than the CCR unit caused the contamination, or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Any such demonstration must be supported by a report that includes the factual or evidentiary basis for any conclusions and must be certified to be accurate by a qualified professional engineer and approved by the Department. If a successful demonstration is made, the owner or operator must continue monitoring in accordance with the assessment monitoring program pursuant to this section, and may return to detection monitoring if the constituents in Appendix III and Appendix IV are at or below background as specified in 335-13-15-.06(6)(e). The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by 335-13-15-.06(1)(e), in addition to the certification by a qualified professional engineer.

5. If a successful determination has not been made at the end of the 90 day period provided by 335-13-15-.06(6)(g)4., the owner or operator of the CCR unit must initiate the assessment of corrective measures requirements under 335-13-15-.06(7).

6. The owner or operator must prepare a notification stating that an assessment of corrective measures has been initiated.

(h) The owner or operator of the CCR unit must establish a groundwater protection standard for each constituent in Appendix IV detected in the groundwater. The groundwater protection standard shall be:

1. For constituents for which a maximum contaminant level (MCL) has been established under 335-7-2-.03(1) and 335-7-2-.08(1) and (2), the MCL for that constituent;

2. For the following constituents:

- (i) Cobalt 6 micrograms per liter ($\mu\text{g/L}$);
- (ii) Lead 15 $\mu\text{g/L}$;
- (iii) Lithium 40 $\mu\text{g/L}$; and
- (iv) Molybdenum 100 $\mu\text{g/L}$.

3. For constituents for which the background level is higher than the levels identified under 335-13-15-.06(6)(h)1. or (h)2., the background concentration.

(i) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(h), the notification requirements specified in 335-13-15-.08(2)(h), and the internet requirements specified in 335-13-15-.08(3)(h).

(7) Assessment of corrective measures.

(a) Within 90 days of finding that any constituent listed in Appendix IV has been detected at a statistically significant level exceeding the groundwater protection standard defined under 335-13-15-.06(6)(h), or immediately upon detection of a release from a CCR unit, the owner or operator must initiate an assessment of corrective measures to prevent further releases, to remediate any releases and to restore affected areas to original conditions. The assessment of corrective measures must be completed within 90 days, unless the owner or operator demonstrates the need for additional time to complete the assessment of corrective measures due to site-specific conditions or circumstances. The owner or operator must obtain a certification from a qualified professional engineer attesting that the demonstration is accurate and submit the demonstration to the Department for approval. The 90-day deadline to complete the assessment of corrective measures may be extended for no longer than 60 days. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by 335-13-15-.06(1)(e), in addition to the certification by a qualified professional engineer.

(b) The owner or operator of the CCR unit must continue to monitor groundwater in accordance with the assessment monitoring program as specified in 335-13-15-.06(6).

(c) The assessment under 335-13-15-.06(7)(a) must include an analysis of the effectiveness of potential corrective measures in meeting all of the requirements and objectives of the remedy as described under 335-13-15-.06(8)

addressing at least the following:

1. The performance, reliability, ease of implementation, and potential impacts of appropriate potential remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination;
2. The time required to begin and complete the remedy;
3. The institutional requirements, such as state or local permit requirements or other environmental or public health requirements that may substantially affect implementation of the remedy(s).

(d) The owner or operator must place the completed assessment of corrective measures in the facility's operating record. The assessment has been completed when it is placed in the facility's operating record as required by 335-13-15-.08(1)(h)10.

(e) The owner or operator must discuss the results of the corrective measures assessment at least 30 days prior to the selection of remedy, in a public meeting with interested and affected parties.

(f) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(h), the notification requirements specified in 335-13-15-.08(2)(h), and the internet requirements specified in 335-13-15-.08(3)(h).

(8) Selection of remedy.

(a) Based on the results of the corrective measures assessment conducted under 335-13-15-.06(7), the owner or operator must, as soon as feasible, select a remedy that, at a minimum, meets the standards listed in 335-13-15-.06(8)(b). This requirement applies in addition to, not in place of, any applicable standards under the Occupational Safety and Health Act. The owner or operator must prepare a semiannual report describing the progress in selecting and designing the remedy. Upon selection of a remedy, the owner or operator must prepare a final report describing the selected remedy and how it meets the standards specified in 335-13-15-.06(8)(b). The owner or operator must obtain a certification from a qualified professional engineer that the remedy selected meets the requirements of this section. Within 14 days of selecting a remedy, the owner or operator must submit the report to the Department for approval of the selected remedy. The report has been completed when it is placed in the operating record as required by 335-13-15-.08(1)(h)12.

(b) Remedies must:

1. Be protective of human health and the environment;

2. Attain the groundwater protection standard as specified pursuant to 335-13-15-.06(6)(h);

3. Control the source(s) of releases so as to reduce or eliminate, to the maximum extent feasible, further releases of constituents in Appendix IV into the environment;

4. Remove from the environment as much of the contaminated material that was released from the CCR unit as is feasible, taking into account factors such as avoiding inappropriate disturbance of sensitive ecosystems;

5. Comply with standards for management of wastes as specified in 335-13-15-.06(9)(d).

(c) In selecting a remedy that meets the standards of 335-13-15-.06(8)(b), the owner or operator of the CCR unit shall consider the following evaluation factors:

1. The long- and short-term effectiveness and protectiveness of the potential remedy(s), along with the degree of certainty that the remedy will prove successful based on consideration of the following:

(i) Magnitude of reduction of existing risks;

(ii) Magnitude of residual risks in terms of likelihood of further releases due to CCR remaining following implementation of a remedy;

(iii) The type and degree of long-term management required, including monitoring, operation, and maintenance;

(iv) Short-term risks that might be posed to the community or the environment during implementation of such a remedy, including potential threats to human health and the environment associated with excavation, transportation, and re-disposal of contaminant;

(v) Time until full protection is achieved;

(vi) Potential for exposure of humans and environmental receptors to remaining wastes, considering the potential threat to human health and the environment associated with excavation, transportation, re-disposal, or containment;

(vii) Long-term reliability of the engineering and institutional controls;
and

(viii) Potential need for replacement of the remedy.

2. The effectiveness of the remedy in controlling the source to reduce further releases based on consideration of the following factors:

(i) The extent to which containment practices will reduce further releases; and

(ii) The extent to which treatment technologies may be used.

3. The ease or difficulty of implementing a potential remedy(s) based on consideration of the following types of factors:

(i) Degree of difficulty associated with constructing the technology;

(ii) Expected operational reliability of the technologies;

(iii) Need to coordinate with and obtain necessary approvals and permits from other agencies;

(iv) Availability of necessary equipment and specialists; and

(v) Available capacity and location of needed treatment, storage, and disposal services.

4. The degree to which community concerns are addressed by a potential remedy(s).

(d) The owner or operator must specify as part of the selected remedy a schedule(s) for implementing and completing remedial activities. Such a schedule must require the completion of remedial activities within a reasonable period of time taking into consideration the factors set forth in 335-13-15-.06(8)(d)1. through 6. The owner or operator of the CCR unit must consider the following factors in determining the schedule of remedial activities:

1. Extent and nature of contamination, as determined by the characterization required under 335-13-15-.06(6)(g);

2. Reasonable probabilities of remedial technologies in achieving compliance with the groundwater protection standards established under 335-13-15-.06(6)(h) and other objectives of the remedy;

3. Availability of treatment or disposal capacity for CCR managed during implementation of the remedy;

4. Potential risks to human health and the environment from exposure to contamination prior to completion of the remedy;

5. Resource value of the aquifer including:
 - (i) Current and future uses;
 - (ii) Proximity and withdrawal rate of users;
 - (iii) Groundwater quantity and quality;
 - (iv) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to CCR constituents;
 - (v) The hydrogeologic characteristic of the facility and surrounding land; and
 - (vi) The availability of alternative water supplies; and
6. Other relevant factors.

(e) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(h), the notification requirements specified in 335-13-15-.08(2)(h), and the internet requirements specified in 335-13-15-.08(3)(h).

(9) Implementation of the corrective action program.

(a) Within 90 days of selecting a remedy under 335-13-15-.06(8), the owner or operator must initiate remedial activities. Based on the schedule established under 335-13-15-.06(8)(d) for implementation and completion of remedial activities the owner or operator must:

1. Establish and implement a corrective action groundwater monitoring program that:

(i) At a minimum, meets the requirements of an assessment monitoring program under 335-13-15-.06(6);

(ii) Documents the effectiveness of the corrective action remedy; and

(iii) Demonstrates compliance with the groundwater protection standard pursuant to 335-13-15-.06(9)(c).

2. Implement the corrective action remedy selected under 335-13-15-.06(8); and

3. Take any interim measures necessary to reduce the contaminants

leaching from the CCR unit, and/or potential exposures to human or ecological receptors. Interim measures must, to the greatest extent feasible, be consistent with the objectives of and contribute to the performance of any remedy that may be required pursuant to 335-13-15-.06(8). The following factors must be considered by an owner or operator in determining whether interim measures are necessary:

- (i) Time required to develop and implement a final remedy;
- (ii) Actual or potential exposure of nearby populations or environmental receptors to any of the constituents listed in Appendix IV;
- (iii) Actual or potential contamination of drinking water supplies or sensitive ecosystems;
- (iv) Further degradation of the groundwater that may occur if remedial action is not initiated expeditiously;
- (v) Weather conditions that may cause any of the constituents listed in Appendix IV to migrate or be released;
- (vi) Potential for exposure to any of the constituents listed in Appendix IV as a result of an accident or failure of a container or handling system; and
- (vii) Other situations that may pose threats to human health and the environment.

(b) If an owner or operator of the CCR unit, determines, at any time, that compliance with the requirements of 335-13-15-.06(8)(b) is not being achieved through the remedy selected, the owner or operator must implement other methods or techniques that could feasibly achieve compliance with the requirements.

(c) Remedies selected pursuant to 335-13-15-.06(8) shall be considered complete when:

1. The owner or operator of the CCR unit demonstrates compliance with the groundwater protection standards established under 335-13-15-.06(6)(h) has been achieved at all points within the plume of contamination that lie beyond the groundwater monitoring well system established under 335-13-15-.06(2).

2. Compliance with the groundwater protection standards established under 335-13-15-.06(6)(h) has been achieved by demonstrating that concentrations of constituents listed in Appendix IV have not exceeded the

groundwater protection standard(s) for a period of three consecutive years using the statistical procedures and performance standards in 335-13-15-.06(4)(f) and (g).

3. All actions required to complete the remedy have been satisfied.

(d) All CCR that are managed pursuant to a remedy required under 335-13-15-.06(8), or an interim measure required under 335-13-15-.06(9)(a)3., shall be managed in a manner that complies with all applicable state and/or federal requirements.

(e) Upon completion of the remedy, the owner or operator must notify the Department within 14 days that a certification from a qualified professional engineer attesting that the remedy has been completed in compliance with the requirements of 335-13-15-.06(9)(c) has been placed in the operating record. The certification must be signed by the owner or operator and by a qualified professional engineer and approved by the Department. The report has been completed when it is placed in the operating record as required by 335-13-15-.08(1)(h)13.

(f) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(h), the notification requirements specified in 335-13-15-.08(2)(h), and the internet requirements specified in 335-13-15-.08(3)(h).

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335-13-15-.07 Closure and Post-Closure Care.

(1) Inactive CCR surface impoundments.

(a) Inactive CCR surface impoundments are subject to all of the requirements of this chapter applicable to existing CCR surface impoundments.

(b) [Reserved]

(c) [Reserved]

(d) [Reserved]

(e) Timeframes for certain inactive CCR surface impoundments.

1. An inactive CCR surface impoundment for which the owner or operator has completed the actions by the deadlines specified in 335-13-15-.07(1)(e)1.(i) through (iii) is eligible for the alternative timeframes specified in 335-13-15-.07(1)(e)2. through 6. The owner or operator of the CCR unit must comply with the applicable recordkeeping, notification, and internet requirements associated with these provisions. For the inactive CCR surface impoundment:

(i) The owner or operator must have prepared and placed in the facility's operating record by December 17, 2015, a notification of intent to initiate closure of the inactive CCR surface impoundment pursuant to 335-13-15-.08(1)(i)1.;

(ii) The owner or operator must have provided notification to the Director by January 19, 2016, of the intent to initiate closure of the inactive CCR surface impoundment pursuant to 335-13-15-.08(2)(i)1; and

(iii) The owner or operator must have placed on its CCR website by January 19, 2016, the notification of intent to initiate closure of the inactive CCR surface impoundment pursuant to 335-13-15-.08(3)(i)1.

2. Location restrictions.

(i) No later than April 16, 2020, the owner or operator of the inactive CCR surface impoundment must:

(I) Complete the demonstration for placement above the uppermost aquifer as set forth by 335-13-15-.03(1)(a), (b), (c) and (d)3.;

(II) Complete the demonstration for wetlands as set forth by 335-13-15-.03(2)(a), (b), and (c)3.;

(III) Complete the demonstration for fault areas as set forth by 335-13-15-.03(3)(a), (b), and (c)3.;

(IV) Complete the demonstration for seismic impact zones as set forth by 335-13-15-.03(4)(a), (b), and (c)3.; and

(V) Complete the demonstration for unstable areas as set forth by 335-13-15-.03(5)(a), (b), (c), and (d)3.

(ii) An owner or operator of an inactive CCR surface impoundment who fails to demonstrate compliance with the requirements of 335-13-15-.07(1)(e)2.(i) is subject to the closure requirements of 335-13-.15-.07(2)(b)1.

3. Design criteria. The owner or operator of the inactive CCR surface impoundment must:

(i) No later than April 17, 2018, complete the documentation of liner type as set forth by 335-13-15-.04(2)(a) and (b).

(ii) No later than June 16, 2017, place on or immediately adjacent to the CCR unit the permanent identification marker as set forth by 335-13-15-.04(4)(a)1.

(iii) No later than October 16, 2018, prepare and maintain an Emergency Action Plan as set forth by 335-13-15-.04(4)(a)3.

(iv) No later than April 17, 2018, compile a history of construction as set forth by 335-13-15-.04(4)(b) and (c).

(v) No later than April 17, 2018, complete the initial hazard potential classification, structural stability, and safety factor assessments as set forth by 335-13-15-.04(4)(a)2., (b), (d), (e), and (f).

4. Operating criteria. The owner or operator of the inactive CCR surface impoundment must:

(i) No later than April 18, 2017, prepare the initial CCR fugitive dust control plan as set forth in 335-13-15-.05(1)(b).

(ii) No later than April 17, 2018, prepare the initial inflow design flood control system plan as set forth in 335-13-15-.05(3)(c).

(iii) No later than April 18, 2017, initiate the inspections by a qualified person as set forth by 335-13-15-.05(4)(a).

(iv) No later than July 19, 2017, complete the initial annual inspection by a qualified professional engineer as set forth by 335-13-15-.05(4)(b).

5. Groundwater monitoring and corrective action. The owner or operator of the inactive CCR surface impoundment must:

(i) No later than April 17, 2019, comply with groundwater monitoring requirements set forth in 335-13-15-.06(1)(b) and 335-13-15-.06(5)(b); and

(ii) No later than August 1, 2019, prepare the initial groundwater monitoring and corrective action report as set forth in 335-13-15-.06(1)(e).

6. Closure and post-closure care. The owner or operator of the inactive CCR surface impoundment must:

(i) No later than April 17, 2018, prepare an initial written closure plan as set forth in 335-13-15-.07(3)(b); and

(ii) No later than April 17, 2018, prepare an initial written post-closure care plan as set forth in 335-13-15-.07(5)(d).

(2) Closure or retrofit of CCR units.

(a) The owner or operator of an existing unlined CCR surface impoundment, as determined under 335-13-15-.04(2)(a), is subject to the requirements of 335-13-15-.07(2)(a)1.

1. Except as provided by 335-13-15-.07(2)(a)3., as soon as technically feasible, but not later than April 11, 2021, an owner or operator of an existing unlined CCR surface impoundment must cease placing CCR and non-CCR wastestreams into such CCR surface impoundment and either retrofit or close the CCR unit in accordance with the requirements of 335-13-15-.07(3).

2. An owner or operator of an existing unlined CCR surface impoundment that closes in accordance with 335-13-15-.07(2)(a)1. must include a statement in the notification required under 335-13-15-.07(3)(g) or (l)5. that the CCR surface impoundment is closing or retrofitting under the requirements of 335-13-15-.07(2)(a)1.

3. The timeframe specified in 335-13-15-.07(2)(a)1. does not apply if the owner or operator complies with the alternative closure procedures specified in 335-13-15-.07(4).

4. At any time after the initiation of closure under 335-13-15-.07(2)(a)1., the owner or operator may cease closure activities and initiate a retrofit of the CCR unit in accordance with the requirements of 335-13-15-.07(3)(l).

(b) The owner or operator of an existing CCR surface impoundment is subject to the requirements of 335-13-15-.07(2)(b)1.

1. (i) Location standard under 335-13-15-.03(1). Except as

provided by 335-13-15-.07(2)(b)4., the owner or operator of an existing CCR surface impoundment that has not demonstrated compliance with the location standard specified in 335-13-15-.03(1)(a) must cease placing CCR and non-CCR wastestreams into such CCR unit as soon as technically feasible, but no later than April 11, 2021, and close the CCR unit in accordance with the requirements of 335-13-15-.07(3).

(ii) Location standards under 335-13-15-.03(2) through 335-13-15-.03(5). Except as provided by 335-13-15-.07(2)(b)4., within six months of determining that an existing CCR surface impoundment has not demonstrated compliance with any location standard specified in 335-13-15-.03(2)(a), 335-13-15-.03(3)(a), 335-13-15-.03(4)(a), and 335-13-15-.03(5)(a), the owner or operator of the CCR surface impoundment must cease placing CCR and non CCR waste streams into such CCR unit and close the CCR unit in accordance with the requirements of 335-13-15-.07(3).

2. Within six months of either failing to complete the initial or any subsequent periodic safety factor assessment required by 335-13-15-.04(4)(e) by the deadlines specified in 335-13-15-.04(4)(f)1. through 3. or failing to document that the calculated factors of safety for the existing CCR surface impoundment achieve the minimum safety factors specified in 335-13-15-.04(4)(e)1.(i) through (iv), the owner or operator of the CCR surface impoundment must cease placing CCR and non CCR waste streams into such CCR unit and close the CCR unit in accordance with the requirements of 335-13-15-.07(3).

3. An owner or operator of an existing CCR surface impoundment that closes in accordance with 335-13-15-.07(2)(b)1. or 2. must include a statement in the notification required under 335-13-15-.07(3)(g) that the CCR surface impoundment is closing under the requirements of 335-13-15-.07(2)(b)1. or 2.

4. The timeframe specified in 335-13-15-.07(2)(b)1. does not apply if the owner or operator complies with the alternative closure procedures specified in 335-13-15-.07(4).

(c) The owner or operator of a new CCR surface impoundment is subject to the requirements of 335-13-15-.07(2)(c)1.

1. Within six months of either failing to complete the initial or any subsequent periodic safety factor assessment required by 335-13-15-.04(5)(e) by the deadlines specified in 335-13-15-.04(5)(f)1. through 3. or failing to document that the calculated factors of safety for the new CCR surface impoundment achieve the minimum safety factors specified in 335-13-15-.04(5)(e)1.(i) through (v), the owner or operator of the CCR surface impoundment must cease placing CCR and non CCR waste streams into such CCR unit and close the CCR unit in accordance with the requirements of 335-13-15-.07(3).

2. An owner or operator of a new CCR surface impoundment that

closes in accordance with 335-13-15-.07(2)(c)1. must include a statement in the notification required under 335-13-15-.07(3)(g) that the CCR surface impoundment is closing under the requirements of 335-13-15-.07(2)(c)1.

(d) The owner or operator of an existing CCR landfill is subject to the requirements of 335-13-15-.07(2)(d)1.

1. Except as provided by 335-13-15-.07(2)(d)3., within six months of determining that an existing CCR landfill has not demonstrated compliance with the location restriction for unstable areas specified in 335-13-15-.03(5)(a), the owner or operator of the CCR unit must cease placing CCR and non CCR waste streams into such CCR landfill and close the CCR unit in accordance with the requirements of 335-13-15-.07(3).

2. An owner or operator of an existing CCR landfill that closes in accordance with 335-13-15-.07(2)(d)1. must include a statement in the notification required under 335-13-15-.07(3)(g) that the CCR landfill is closing under the requirements of 335-13-15-.07(2)(d)1.

3. The timeframe specified in 335-13-15-.07(2)(d)1. does not apply if the owner or operator complies with the alternative closure procedures specified in 335-13-15-.07(4).

(3) Criteria for conducting the closure or retrofit of CCR units.

(a) Closure of a CCR landfill, CCR surface impoundment, or any lateral expansion of a CCR unit must be completed either by leaving the CCR in place and installing a final cover system or through removal of the CCR and decontamination of the CCR unit, as described in 335-13-15-.07(3)(b) through (j). Retrofit of a CCR surface impoundment must be completed in accordance with the requirements in 335-13-15-.07(3)(l).

(b) Written closure plan.

1. Content of the plan. The owner or operator of a CCR unit must prepare a written closure plan that describes the steps necessary to close the CCR unit at any point during the active life of the CCR unit consistent with recognized and generally accepted good engineering practices. The owner or operator must submit the closure plan as part of the permit application to the Department. The written closure plan must include, at a minimum, the information specified in 335-13-15-.07(3)(b)1.(i) through (vi).

(i) A narrative description of how the CCR unit will be closed in accordance with this section.

(ii) If closure of the CCR unit will be accomplished through removal of CCR from the CCR unit, a description of the procedures to remove the CCR and

decontaminate the CCR unit in accordance with 335-13-15-.07(3)(c).

(iii) If closure of the CCR unit will be accomplished by leaving CCR in place, a description of the final cover system, designed in accordance with 335-13-15-.07(3)(d), and the methods and procedures to be used to install the final cover. The closure plan must also discuss how the final cover system will achieve the performance standards specified in 335-13-15-.07(3)(d).

(iv) An estimate of the maximum inventory of CCR ever on-site over the active life of the CCR unit.

(v) An estimate of the largest area of the CCR unit ever requiring a final cover as required by 335-13-15-.07(3)(d) at any time during the CCR unit's active life.

(vi) A schedule for completing all activities necessary to satisfy the closure criteria in this section, including an estimate of the year in which all closure activities for the CCR unit will be completed. The schedule should provide sufficient information to describe the sequential steps that will be taken to close the CCR unit, including identification of major milestones such as coordinating with and obtaining necessary approvals and permits from other agencies, the dewatering and stabilization phases of CCR surface impoundment closure, or installation of the final cover system, and the estimated timeframes to complete each step or phase of CCR unit closure. When preparing the written closure plan, if the owner or operator of a CCR unit estimates that the time required to complete closure will exceed the timeframes specified in 335-13-15-.07(3)(f)1., the written closure plan must include the site-specific information, factors and considerations that would support any time extension sought under 335-13-15-.07(3)(f)2.

2. Timeframes for preparing the initial written closure plan.

(i) Existing CCR landfills and existing CCR surface impoundments. No later than October 17, 2016, the owner or operator of the CCR unit must prepare an initial written closure plan consistent with the requirements specified in 335-13-15-.07(3)(b)1.

(ii) New CCR landfills and new CCR surface impoundments, and any lateral expansion of a CCR unit. No later than the date of the initial receipt of CCR in the CCR unit, the owner or operator must prepare an initial written closure plan consistent with the requirements specified in 335-13-15-.07(3)(b)1.

(iii) The owner or operator has completed the written closure plan when the plan, including the certification required by 335-13-15-.07(3)(b)4., has been placed in the facility's operating record as required by 335-13-15-.08(1)(i)4.

3. Amendment of a written closure plan.

(i) The owner or operator may amend the initial or any subsequent written closure plan developed pursuant to 335-13-15-.07(3)(b)1. at any time.

(ii) The owner or operator must amend the written closure plan whenever:

(I) There is a change in the operation of the CCR unit that would substantially affect the written closure plan in effect; or

(II) Before or after closure activities have commenced, unanticipated events necessitate a revision of the written closure plan.

(iii) The owner or operator must amend the closure plan at least 60 days prior to a planned change in the operation of the facility or CCR unit, or no later than 60 days after an unanticipated event requires the need to revise an existing written closure plan. If a written closure plan is revised after closure activities have commenced for a CCR unit, the owner or operator must amend the current closure plan no later than 30 days following the triggering event.

4. The owner or operator of the CCR unit must obtain a written certification from a qualified professional engineer that the initial and any amendment of the written closure plan meets the requirements of this section. The closure plan, as well as the certification from a qualified professional engineer, must be submitted to the Department for approval.

(c) Closure by removal of CCR. An owner or operator may elect to close a CCR unit by removing and decontaminating all areas affected by releases from the CCR unit. CCR removal and decontamination of the CCR unit are complete when constituent concentrations throughout the CCR unit and any areas affected by releases from the CCR unit have been removed and groundwater monitoring concentrations do not exceed the groundwater protection standard established pursuant to 335-13-15-.06(6)(h) for constituents listed in Appendix IV.

(d) Closure performance standard when leaving CCR in place.

1. The owner or operator of a CCR unit must ensure that, at a minimum, the CCR unit is closed in a manner that will:

(i) Control, minimize or eliminate, to the maximum extent feasible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters or to the atmosphere;

(ii) Preclude the probability of future impoundment of water, sediment, or slurry;

(iii) Include measures that provide for major slope stability to prevent the sloughing or movement of the final cover system during the closure and post-closure care period;

(iv) Minimize the need for further maintenance of the CCR unit; and

(v) Be completed in the shortest amount of time consistent with recognized and generally accepted good engineering practices.

2. Drainage and stabilization of CCR surface impoundments. The owner or operator of a CCR surface impoundment or any lateral expansion of a CCR surface impoundment must meet the requirements of 335-13-15-.07(3)(d)2.(i) and (ii) prior to installing the final cover system required under 335-13-15-.07(3)(d)3.

(i) Free liquids must be eliminated by removing liquid wastes or solidifying the remaining wastes and waste residues.

(ii) Remaining wastes must be stabilized sufficient to support the final cover system.

3. Final cover system. If a CCR unit is closed by leaving CCR in place, the owner or operator must install a final cover system that is designed to minimize infiltration and erosion, and at a minimum, meets the requirements of 335-13-15-.07(3)(d)3.~~(ii)(I) through (III)~~, or the requirements of the alternative final cover system specified in 335-13-15-.07(3)(d)3.(ii).

(i) The final cover system must be designed and constructed to meet the criteria in 335-13-15-.07(3)(d)3.(i)(I) through (VII). The design of the final cover system must be included in the written closure plan required by 335-13-15-.07(3)(b).

(I) The permeability of the final cover system must be less than or equal to the permeability of any bottom liner system or natural subsoils present, or a permeability no greater than 1×10^{-5} cm/sec, whichever is less.

(II) The infiltration of liquids through the closed CCR unit must be minimized by the use of an infiltration layer that contains a minimum of 18 inches of earthen material.

(III) The minimum final grade of the final cover system shall not be less than 5 percent.

(IV) The maximum final grade of the final cover system shall not exceed 25 percent, or as specified by the Department, to minimize erosion.

(V) Slopes longer than 25 feet shall require horizontal terraces, of

sufficient width for equipment operation, for every 20 feet rise in elevation or utilize other erosion control measures approved by the Department.

(VI) The erosion of the final cover system must be minimized by the use of an erosion layer that contains a minimum of six inches of earthen material that is capable of sustaining native plant growth.

(VII) The disruption of the integrity of the final cover system must be minimized through a design that accommodates settling and subsidence.

(ii) The owner or operator may select an alternative final cover system design, provided the alternative final cover system is designed and constructed to meet the criteria in 335-13-15-.07(3)(d)3.(i)(I) through ~~(III)(V)~~. The design of the final cover system must be included in the written closure plan required by 335-13-15-.07(3)(b).

(I) The design of the final cover system must include an infiltration layer that achieves an equivalent reduction in infiltration as the infiltration layer specified in 335-13-15-.07(3)(d)3.(i)(I) and (II).

(II) The design of the final cover system must include an erosion layer that provides equivalent protection from wind or water erosion as the erosion layer specified in 335-13-15-.07(3)(d)3.(i)(VI).

(III) The disruption of the integrity of the final cover system must be minimized through a design that accommodates settling and subsidence.

(iii) The owner or operator of the CCR unit must obtain and submit to the Department a written certification from a qualified professional engineer that the design of the final cover system meets the requirements of this section.

(e) Initiation of closure activities. Except as provided for in 335-13-15-.07(3)(e)4. and 335-13-15-.07(4), the owner or operator of a CCR unit must commence closure of the CCR unit no later than the applicable timeframes specified in either 335-13-15-.07(3)(e)1. or 2.

1. The owner or operator must commence closure of the CCR unit no later than 30 days after the date on which the CCR unit either:

(i) Receives the known final receipt of waste, either CCR or any non-CCR waste stream; or

(ii) Removes the known final volume of CCR from the CCR unit for the purpose of beneficial use of CCR.

2. (i) Except as provided by 335-13-15-.07(3)(e)2.(ii), the owner or operator must commence closure of a CCR unit that has not received CCR or

any non-CCR waste stream or is no longer removing CCR for the purpose of beneficial use within two years of the last receipt of waste or within two years of the last removal of CCR material for the purpose of beneficial use.

(ii) Notwithstanding 335-13-15-.07(3)(e)2.(i), the owner or operator of the CCR unit may request an additional two years to initiate closure of the idle unit provided the owner or operator provides written documentation to the Department that the CCR unit will continue to accept wastes or will start removing CCR for the purpose of beneficial use. The documentation must be supported by, at a minimum, the information specified in 335-13-15-.07(3)(e)2.(ii)(I) and (II). The Department may approve two-year extensions provided the owner or operator continues to be able to demonstrate that there is reasonable likelihood that the CCR unit will accept wastes in the foreseeable future or will remove CCR from the unit for the purpose of beneficial use. The owner or operator must submit each completed demonstration, if more than one time extension is sought, to the Department for approval and place in the facility's operating record as required by 335-13-15-.08(1)(i)5. prior to the end of any two-year period.

(I) Information documenting that the CCR unit has remaining storage or disposal capacity or that the CCR unit can have CCR removed for the purpose of beneficial use; and

(II) Information demonstrating that ~~that~~ there is a reasonable likelihood that the CCR unit will resume receiving CCR or non-CCR waste streams in the foreseeable future or that CCR can be removed for the purpose of beneficial use. The narrative must include a best estimate as to when the CCR unit will resume receiving CCR or non-CCR waste streams. The situations listed in 335-13-15-.07(3)(e)2.(ii)(II)I. through IV. are examples of situations that would support a determination that the CCR unit will resume receiving CCR or non-CCR waste streams in the foreseeable future.

I. Normal plant operations include periods during which the CCR unit does not receive CCR or non-CCR waste streams, such as the alternating use of two or more CCR units whereby at any point in time one CCR unit is receiving CCR while CCR is being removed from a second CCR unit after its dewatering.

II. The CCR unit is dedicated to a coal-fired boiler unit that is temporarily idled (e.g., CCR is not being generated) and there is a reasonable likelihood that the coal-fired boiler will resume operations in the future.

III. The CCR unit is dedicated to an operating coal-fired boiler (i.e., CCR is being generated); however, no CCR are being placed in the CCR unit because the CCR are being entirely diverted to beneficial uses, but there is a reasonable likelihood that the CCR unit will again be used in the foreseeable future.

IV. The CCR unit currently receives only non-CCR waste streams and those non-CCR waste streams are not generated for an extended period of time, but there is a reasonable likelihood that the CCR unit will again receive non-CCR waste streams in the future.

(iii) In order to obtain additional time extension(s) to initiate closure of a CCR unit beyond the two years provided by 335-13-15-.07(3)(e)2.(i), the owner or operator of the CCR unit must include with the demonstration required by 335-13-15-.07(3)(e)2.(ii) the following statement signed by the owner or operator or an authorized representative:

“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”

3. For purposes of this chapter, closure of the CCR unit has commenced if the owner or operator has ceased placing waste and completes any of the following actions or activities:

(i) Taken any steps necessary to implement the written closure plan required by 335-13-15-.07(3)(b);

(ii) Taken any steps necessary to comply with any state or other agency standards that are a prerequisite, or are otherwise applicable, to initiating or completing the closure of a CCR unit.

4. The timeframes specified in 335-13-15-.07(3)(e)1. and 2. do not apply to any of the following owners or operators:

(i) [Reserved]

(ii) An owner or operator of an existing unlined CCR surface impoundment closing the CCR unit as required by 335-13-15-.07(2)(a);

(iii) An owner or operator of an existing CCR surface impoundment closing the CCR unit as required by 335-13-15-.07(2)(b); or

(iv) An owner or operator of a new CCR surface impoundment closing the CCR unit as required by 335-13-15-.07(2)(c); or

(v) An owner or operator of an existing CCR landfill closing the CCR unit as required by 335-13-15-.07(2)(d).

(f) Completion of closure activities.

1. Except as provided for in 335-13-15-.07(3)(f)2., the owner or operator must complete closure of the CCR unit:

(i) For existing and new CCR landfills and any lateral expansion of a CCR landfill, within six months of commencing closure activities.

(ii) For existing and new CCR surface impoundments and any lateral expansion of a CCR surface impoundment, within five years of commencing closure activities.

2. (i) Extensions of closure timeframes. The timeframes for completing closure of a CCR unit specified under 335-13-15-.07(3)(f)1. may be extended if the owner or operator can demonstrate to the Department that it was not feasible to complete closure of the CCR unit within the required timeframes due to factors beyond the facility's control. If the owner or operator is seeking a time extension beyond the time specified in the written closure plan as required by 335-13-15-.07(3)(b)1., the demonstration must include a narrative discussion providing the basis for additional time beyond that specified in the closure plan. The owner or operator must submit each completed demonstration, if more than one time extension is sought, to the Department for approval and place in the facility's operating record as required by 335-13-15-.08(1)(i)6. prior to the end of any two-year period. Factors that may support such a demonstration include:

(I) Complications stemming from the climate and weather, such as unusual amounts of precipitation or a significantly shortened construction season;

(II) Time required to dewater a surface impoundment due to the volume of CCR contained in the CCR unit or the characteristics of the CCR in the unit; or

(III) The geology and terrain surrounding the CCR unit will affect the amount of material needed to close the CCR unit.

(ii) Maximum time extensions.

(I) CCR surface impoundments of 40 acres or smaller may extend the time to complete closure by no longer than two years.

(II) CCR surface impoundments larger than 40 acres may extend the timeframe to complete closure of the CCR unit multiple times, in two-year increments. For each two-year extension sought, the owner or operator must substantiate the factual circumstances demonstrating the need for the extension. No more than a total of five two-year extensions may be obtained for any CCR surface impoundment.

(III) CCR landfills may extend the timeframe to complete closure of the CCR unit multiple times, in one-year increments. For each one-year extension sought, the owner or operator must substantiate the factual circumstances demonstrating the need for the extension. No more than a total of two one-year extensions may be obtained for any CCR landfill.

(iii) In order to obtain additional time extension(s) to complete closure of a CCR unit beyond the times provided by 335-13-15-.07(3)(f)1., the owner or operator of the CCR unit must include with the demonstration required by 335-13-15-.07(3)(f)2.(i) the following statement signed by the owner or operator or an authorized representative:

“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”

3. Upon completion, the owner or operator of the CCR unit must obtain a certification from a qualified professional engineer verifying that closure has been completed in accordance with the closure plan specified in 335-13-15-.07(3)(b) and the requirements of this section.

(g) No later than the date the owner or operator initiates closure of a CCR unit, the owner or operator must prepare a notification of intent to close a CCR unit. The notification must include the certification by a qualified professional engineer for the design of the final cover system as required by 335-13-15-.07(3)(d)3.(iii), if applicable. The owner or operator has completed the notification when it has been submitted to the Department and placed in the facility's operating record as required by 335-13-15-.08(1)(i)7.

(h) Within 30 days of completion of closure of the CCR unit, the owner or operator must prepare a notification of closure of a CCR unit. The notification must include the certification by a qualified professional engineer as required by 335-13-15-.07(3)(f)3. The owner or operator has completed the notification when it has been submitted to the Department and placed in the facility's operating record as required by 335-13-15-.08(1)(i)8.

(i) Deed notations.

1. Except as provided by 335-13-15-.07(3)(i)4., following closure of a CCR unit, the owner or operator must record a notation on the deed to the property, or some other instrument that is normally examined during title search.

2. The notation on the deed must in perpetuity notify any potential purchaser of the property that:

- (i) The land has been used as a CCR unit; and
- (ii) Its use is restricted under the post-closure care requirements as provided by 335-13-15-.07(5)(d)1.(iii).
- (iii) The locations and dimensions of the CCR unit with respect to permanently surveyed benchmarks and section corners shall be on a plat prepared and sealed by a land surveyor.
- (iv) Contain a note, prominently displayed, which states the name of the permittee or operating agency, the type of CCR unit and the beginning and closure dates of the disposal activity.
- (v) Certification by an engineer that all closure requirements have been completed as determined necessary by the Department.

3. Within 30 days of recording a notation on the deed to the property, the owner or operator must prepare a notification stating that the notation has been recorded. The owner or operator has completed the notification when it has been placed in the facility's operating record as required by 335-13-15-.08(1)(i)9. and documentation of the recording of the notation on the deed has been submitted to the Department.

4. An owner or operator that closes a CCR unit in accordance with 335-13-15-.07(3)(c) is not subject to the requirements of 335-13-15-.07(3)(i)1. through 3.

(j) Following closure, the owner or operator of a CCR unit must provide an environmental covenant to the Department in compliance with 335-5. The owner or operator must place the executed environmental covenant in the facility's operating record as required by 335-13-15-.08(1)(i)10.

(k) The owner or operator of the CCR unit must comply with the closure recordkeeping requirements specified in 335-13-15-.08(1)(i), the closure notification requirements specified in 335-13-15-.08(2)(i), and the closure internet requirements specified in 335-13-15-.08(3)(i).

(l) Criteria to retrofit an existing CCR surface impoundment.

1. To retrofit an existing CCR surface impoundment, the owner or operator must:

(i) First remove all CCR, including any contaminated soils and

sediments from the CCR unit; and

(ii) Comply with the requirements in 335-13-15-.04(3).

(iii) A CCR surface impoundment undergoing a retrofit remains subject to all other requirements of this chapter, including the requirement to conduct any necessary corrective action.

2. Written retrofit plan.

(i) Content of the plan. The owner or operator must prepare a written retrofit plan that describes the steps necessary to retrofit the CCR unit consistent with recognized and generally accepted good engineering practices. The written retrofit plan must include, at a minimum, all of the following information:

(I) A narrative description of the specific measures that will be taken to retrofit the CCR unit in accordance with this section.

(II) A description of the procedures to remove all CCR and contaminated soils and sediments from the CCR unit.

(III) An estimate of the maximum amount of CCR that will be removed as part of the retrofit operation.

(IV) An estimate of the largest area of the CCR unit that will be affected by the retrofit operation.

(V) A schedule for completing all activities necessary to satisfy the retrofit criteria in this section, including an estimate of the year in which retrofit activities of the CCR unit will be completed.

(ii) Timeframes for preparing the initial written retrofit plan.

(I) No later than 60 days prior to the date of initiating retrofit activities, the owner or operator must prepare an initial written retrofit plan consistent with the requirements specified in 335-13-15-.07(3)(l)2. For purposes of this chapter, initiation of retrofit activities has commenced if the owner or operator has ceased placing waste in the unit and completes any of the following actions or activities:

I. Taken any steps necessary to implement the written retrofit plan; or

II. Taken any steps necessary to comply with any state or other agency standards that are a prerequisite, or are otherwise applicable, to initiating or completing the retrofit of a CCR unit.

(II) The owner or operator has completed the written retrofit plan when

the plan, including the certification required by 335-13-15-.07(3)(l)2.(iv), has been placed in the facility's operating record as required by 335-13-15-.08(1)(j)1.

(iii) Amendment of a written retrofit plan.

(I) The owner or operator may amend the initial or any subsequent written retrofit plan at any time.

(II) The owner or operator must amend the written retrofit plan whenever:

I. There is a change in the operation of the CCR unit that would substantially affect the written retrofit plan in effect; or

II. Before or after retrofit activities have commenced, unanticipated events necessitate a revision of the written retrofit plan.

(III) The owner or operator must amend the retrofit plan at least 60 days prior to a planned change in the operation of the facility or CCR unit, or no later than 60 days after an unanticipated event requires the revision of an existing written retrofit plan. If a written retrofit plan is revised after retrofit activities have commenced for a CCR unit, the owner or operator must amend the current retrofit plan no later than 30 days following the triggering event.

(iv) The owner or operator of the CCR unit must obtain a written certification from a qualified professional engineer that the activities outlined in the written retrofit plan, including any amendment of the plan, meet the requirements of this section. The retrofit plan, as well as the certification from a qualified professional engineer, must be submitted to the Department for approval.

3. Deadline for completion of activities related to the retrofit of a CCR unit. Any CCR surface impoundment that is being retrofitted must complete all retrofit activities within the same time frames and procedures specified for the closure of a CCR surface impoundment in 335-13-15-.07(3)(f) or, where applicable, 335-13-15-.07(4).

4. Upon completion, the owner or operator must obtain and submit to the Department a certification from a qualified professional engineer verifying that the retrofit activities have been completed in accordance with the retrofit plan specified in 335-13-15-.07(3)(l)2. and the requirements of this section.

5. No later than the date the owner or operator initiates the retrofit of a CCR unit, the owner or operator must prepare a notification of intent to retrofit a CCR unit. The owner or operator has completed the notification when it has been placed in the facility's operating record as required by 335-13-15-.08(1)(j)5.

6. Within 30 days of completing the retrofit activities specified in 335-13-15-.07(3)(l)1., the owner or operator must prepare a notification of completion of retrofit activities. The notification must include the certification by a qualified professional engineer as required by 335-13-15-.07(3)(l)4. The owner or operator has completed the notification when it has been placed in the facility's operating record as required by 335-13-15-.08(1)(j)6.

7. At any time after the initiation of a CCR unit retrofit, the owner or operator may cease the retrofit and initiate closure of the CCR unit in accordance with the requirements of 335-13-15-.07(3).

8. The owner or operator of the CCR unit must comply with the retrofit recordkeeping requirements specified in 335-13-15-.08(1)(j), the retrofit notification requirements specified in 335-13-15-.08(2)(j), and the retrofit internet requirements specified in 335-13-15-.08(3)(j).

(4) Alternative closure requirements. The owner or operator of a CCR landfill, CCR surface impoundment, or any lateral expansion of a CCR unit that is subject to closure pursuant to 335-13-15-.07(2)(a), (b)1., or (d) may nevertheless continue to receive the wastes specified in either 335-13-15-.07(4)(a), (b), (f)1., or (f)2. in the unit, provided the owner or operator meets all the requirements in the respective paragraph.

(a) CCR Landfills

1. No alternative CCR disposal capacity. Notwithstanding the provisions of 335-13-15-.07(2)(d), a CCR landfill may continue to receive CCR if the owner or operator of the CCR ~~landfill~~unit certifies that the CCR must continue to be managed in that CCR landfill due to the absence of alternative disposal capacity both on-site and off-site of the facility. To qualify under this paragraph, the owner or operator of the CCR ~~unit~~landfill must submit a plan to the Department for approval which demonstrates that all of the following conditions have been met:

(i) No alternative disposal capacity is available on-site or off-site. An increase in costs or the inconvenience of existing capacity is not sufficient to support qualification under this section;

(ii) The owner or operator has made, and continues to make, efforts to obtain additional capacity. Qualification under 335-13-15-.07(4)(a) lasts only as long as no alternative capacity is available. Once alternative capacity is identified, the owner or operator must arrange to use such capacity as soon as feasible;

(iii) The owner or operator must remain in compliance with all other requirements of this chapter, including the requirement to conduct any necessary corrective action; and

(iv) The owner or operator must prepare and submit to the Department the annual progress report specified in 335-13-15-.07(4)(c) documenting the continued lack of alternative capacity and the progress towards the development of alternative CCR disposal capacity.

2. Once alternative capacity is available, the CCR landfill must cease receiving CCR and initiate closure following the timeframes in 335-13-15-.07(3)(e).

3. If no alternative capacity is identified within five years after the initial certification, the CCR landfill must cease receiving CCR and close in accordance with the timeframes in 335-13-15-.07(3)(e) and (f).

(b) CCR Landfills.

1. Permanent cessation of a coal-fired boiler(s) by a certain date. Notwithstanding the provisions of 335-13-15-.07(2)(d), a CCR landfill may continue to receive CCR if the owner or operator certifies that the facility will cease operation of the coal-fired boilers within the timeframes specified in 335-13-15-.07(4)(b)4., but in the interim period (prior to closure of the coal-fired boiler), the facility must continue to use the CCR landfill due to the absence of alternative disposal capacity both on-site and off-site of the facility. To qualify under this paragraph, the owner or operator of the CCR landfill must submit a plan to the Department for approval which demonstrates that all of the following conditions have been met:

(i) No alternative disposal capacity is available on-site or off-site. An increase in costs or the inconvenience of existing capacity is not sufficient to support qualification under this section.

(ii) The owner or operator must remain in compliance with all other requirements of this chapter, including the requirement to conduct any necessary corrective action; and

(iii) The owner or operator must prepare and submit to the Department the annual progress report specified in 335-13-15-.07(4)(c) documenting the continued lack of alternative capacity and the progress towards the closure of the coal-fired boiler.

2. [Reserved]

3. [Reserved]

4. For a CCR landfill, the coal-fired boiler must cease operation, and the CCR landfill must complete closure no later than April 19, 2021.

(c) Required notices and progress reports for CCR Landfills. An owner or operator of a CCR landfill that closes in accordance with 335-13-15-.07(4)(a) or (b) must complete the notices and progress reports specified in 335-13-15-.07(4)(c)1. through 3.

1. Within six months of becoming subject to closure pursuant to 335-13-15-.07(2)(d), the owner or operator must prepare, submit to the Department for approval and place in the facility's operating record a request to comply with the alternative closure requirements of this section. The request must describe why the CCR unit qualifies for the alternative closure provisions under either 335-13-15-.07(4)(a) or (b), in addition to providing the documentation and certifications required by 335-13-15-.07(4)(a) or (b).

2. The owner or operator must prepare the periodic progress reports required by 335-13-15-.07(4)(a)1.(iv), or (b)1.(iii) , in addition to describing any problems encountered and a description of the actions taken to resolve the problems. The annual progress reports must be completed according to the following schedule:

(i) The first annual progress report must be prepared no later than 13 months after completing the request to comply with the alternative closure requirements required by 335-13-15-.07(4)(c)1.

(ii) The second annual progress report must be prepared no later than 12 months after completing the first annual progress report. Subsequent annual progress reports must be prepared within 12 months of completing the previous annual progress report.

(iii) The owner or operator has completed the progress reports specified in 335-13-15-.07(4)(c)2. when the reports are submitted to the Department and placed in the facility's operating record as required by 335-13-15-.08(1)(i)12.

3. An owner or operator of a CCR landfill must also prepare the notification of intent to close a CCR unit as required by 335-13-15-.07(3)(g).

(d) CCR landfill recordkeeping. The owner or operator of the CCR landfill must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(i), the notification requirements specified in 335-13-15-.08(2)(i), and the internet requirements specified in 335-13-15-.08(3)(i).

(e) [Reserved]

(f) Site-specific alternative deadlines to initiate closure of CCR surface impoundments. Notwithstanding the provisions of 335-13-15-.07(2)(a) and (b)1., a CCR surface impoundment may continue to receive the waste specified in 335-13-

15-.07(4)(f)1. or (f)2., provided the owner or operator submits a demonstration that the criteria in either 335-13-15-.07(4)(f)1. or (f)2. have been met. The demonstration must be submitted to the Director for approval no later than the relevant deadline in 335-13-15-.07(4)(f)3. The Director will act on the submission in accordance with the procedures in 335-13-15-.07(4)(f)3.

1. Development of alternative capacity is technically infeasible. Notwithstanding the provisions of 335-13-15-.07(2)(a) and (b)1., a CCR surface impoundment may continue to receive the waste specified in 335-13-15-.07(4)(f)1.(ii)(I) or (II), provided the owner or operator demonstrates the wastestream(s) must continue to be managed in that CCR surface impoundment because it was technically infeasible to complete the measures necessary to provide alternative disposal capacity on or off-site of the facility by April 11, 2021. To obtain approval under 335-13-15-.07(4)(f)1., all of the following criteria must be met:

(i) No alternative disposal capacity is available on or off-site. An increase in costs or the inconvenience of existing capacity is not sufficient to support qualification under this section;

(ii) (I) For units closing pursuant to 335-13-15-.07(2)(a) and (b)1.(i), CCR and/or non-CCR wastestreams must continue to be managed in that CCR surface impoundment because it was technically infeasible to complete the measures necessary to obtain alternative disposal capacity either on or off-site of the facility by April 11, 2021.

(II) For units closing pursuant to 335-13-15-.07(2)(b)1.(ii), CCR must continue to be managed in that CCR surface impoundment because it was technically infeasible to complete the measures necessary to obtain alternative disposal capacity either on or off-site of the facility by April 11, 2021.

(iii) The facility is in compliance with all of the requirements of this chapter.

(iv) The owner or operator of the CCR surface impoundment must submit documentation that the criteria in 335-13-15-.07(4)(f)1.(i) through (iii) have been met by submitting to the Director all of the following:

(I) To demonstrate that the criteria in 335-13-15-.07(4)(f)1.(i) and (ii) have been met the owner or operator must submit a workplan that contains all of the following elements:

I. A written narrative discussing the options considered both on and off-site to obtain alternative capacity for each CCR and/or non-CCR wastestreams, the technical infeasibility of obtaining alternative capacity prior to April 11, 2021, and the option selected and justification for the alternative capacity selected. The narrative must also include all of the following:

A. An in-depth analysis of the site and any site-specific conditions that led to the decision to select the alternative capacity being developed;

B. An analysis of the adverse impact to plant operations if the CCR surface impoundment in question were to no longer be available for use; and

C. A detailed explanation and justification for the amount of time being requested and how it is the fastest technically feasible time to complete the development of the alternative capacity;

II. A detailed schedule of the fastest technically feasible time to complete the measures necessary for alternative capacity to be available including a visual timeline representation. The visual timeline must clearly show all of the following:

A. How each phase and the steps within that phase interact with or are dependent on each other and the other phases;

B. All of the steps and phases that can be completed concurrently;

C. The total time needed to obtain the alternative capacity and how long each phase and step within each phase will take; and

D. At a minimum, the following phases: engineering and design, contractor selection, equipment fabrication and delivery, construction, and start up and implementation-;

III. A narrative discussion of the schedule and visual timeline representation, which must discuss all of the following:

A. Why the length of time for each phase and step is needed and a discussion of the tasks that occur during the specific step;

B. Why each phase and step shown on the chart must happen in the order it is occurring;

C. The tasks that occur during each of the steps within the phase; and

D. Anticipated worker schedules; and

IV. A narrative discussion of the progress the owner or operator has made to obtain alternative capacity for the CCR and/or non-CCR wastestreams. The narrative must discuss all the steps taken, starting from when the owner or operator initiated the design phase up to the steps occurring when the demonstration is being compiled. It must discuss where the facility currently is on the timeline and the efforts that are currently being undertaken to develop alternative capacity.

(II) To demonstrate that the criteria in 335-13-15-.07(4)(f)1.(iii) have been met, the owner or operator must submit all of the following:

I. A certification signed by the owner or operator that the facility is in compliance with all of the requirements of this chapter;

II. Visual representation of hydrogeologic information at and around the CCR unit(s) that supports the design, construction and installation of the groundwater monitoring system. This includes all of the following:

A. Map(s) of groundwater monitoring well locations in relation to the CCR unit(s);

B. Well construction diagrams and drilling logs for all groundwater monitoring wells; and

C. Maps that characterize the direction of groundwater flow accounting for seasonal variations;

III. Constituent concentrations, summarized in table form, at each groundwater monitoring well monitored during each sampling event;

IV. A description of site hydrogeology including stratigraphic cross-sections;

V. Any corrective measures assessment conducted as required by 335-13-15-.06(7);

VI. Any progress reports on corrective action remedy selection and design and the report of final remedy selection required at 335-13-15-.06(8)(a);

VII. The most recent structural stability assessment required by 335-13-15-.04(4)(d); and

VIII. The most recent safety factor assessment required by 335-13-15-.04(4)(e).

(v) As soon as alternative capacity for any CCR or non-CCR wastestream is available, the CCR surface impoundment must cease receiving that CCR or non-CCR wastestream. Once the CCR surface impoundment ceases receipt of all CCR and/or non-CCR wastestreams, the CCR surface impoundment must initiate closure following the timeframes in 335-13-15-.07(3)(e) and (f).

(vi) Maximum time frames. All CCR surface impoundments covered by ~~this section~~ 335-13-15-.07(4)(f)1. must cease receiving waste by the deadlines specified in 335-13-15-.07(4)(f)1.(vi)(I) and (II) and close in accordance with the timeframes in 335-13-15-.07(3)(e) and (f).

(I) Except as provided by 335-13-15-.07(4)(f)1.(vi)(II), no later than October 15, 2023.

(II) An eligible unlined CCR surface impoundment must cease receiving CCR and/or non-CCR wastestreams no later than October 15, 2024. In order to continue to operate until October 15, 2024, the owner or operator must include in their demonstration to the Department as required by 335-13-15-.07(4)(f), documentation that the unit meets the definition of an eligible unlined CCR surface impoundment.

(vii) An owner or operator may seek additional time beyond the time granted in the initial approval by making the showing in 335-13-15-.07(4)(f)1.(i) through (iv), provided that no facility may be granted time to operate the impoundment beyond the maximum allowable time frames provided in 335-13-15-.07(4)(f)1.(vi).

(viii) The owner or operator at all times bears responsibility for demonstrating to the Department qualification under this section. Failure to remain in compliance with any of the requirements of this chapter will result in the automatic loss of authorization under this section.

(ix) The owner or operator must:

(I) Upon submission of the demonstration to the Director, prepare and place in the facility's operating record a notification that the demonstration has been submitted, along with a copy of the demonstration. An owner or operator that claims confidential business information in the demonstration may post a redacted version of the demonstration to its publicly accessible CCR internet site provided that it contains sufficient detail so that the public can meaningfully comment on the demonstration. Information submitted to the Department may be considered confidential in accordance with the requirements of rule 335-1-1-.06(2), if requested by the facility in writing.

(II) Upon receipt of a decision pursuant to 335-13-15-.07(4)(f)3., must prepare and place in the facility's operating record a copy of the decision.

(III) If an extension of an approved deadline pursuant to 335-13-15-.07(4)(f)1.(vii) has been requested, place a copy of the request submitted to the Director in the facility's operating record.

(x) The owner or operator must prepare semi-annual progress reports. The semi-annual progress reports must contain all of the following elements:

(I) Discussion of the progress made to date in obtaining alternative capacity, including:

I. Discussion of the current stage of obtaining the capacity in reference to the timeline required under 335-13-15-.07(4)(f)1.(iv)(I);

II. Discussion of whether the owner or operator is on schedule for obtaining alternative capacity;

III. If the owner or operator is not on or ahead of schedule for obtaining alternative capacity, the following must be included:

A. Discussion of any problems encountered, and a description of the actions taken or planned to resolve the problems and get back on schedule; and

B. Discussion of the goals for the next six months and major milestones to be achieved for obtaining alternative capacity; and

(II) Discussion of any planned operational changes at the facility.

(xi) The progress reports must be completed according to the following schedule:

(I) The semi-annual progress reports must be prepared no later than April 30 and October 31 of each year for the duration of the alternative cease receipt of waste deadline.

(II) The first semi-annual progress report must be prepared by whichever date, April 30 or October 31, is soonest after receiving approval from the Director; and

(III) The owner or operator has completed the progress reports specified in 335-13-15-.07(4)(f)1.(x) when the reports have been placed in the facility's operating record as required by 335-13-15-.08(1)(i)18.

(xii) The owner or operator must prepare the notification of intent to close a CCR surface impoundment as required by 335-13-15-.07(3)(g).

(xiii) The owner or operator must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(i), the notification requirements specified in 335-13-15-.08(2)(i), and the internet posting requirements specified in 335-13-15-.08(3)(i).

2. Permanent cessation of a coal-fired boiler(s) by a date certain. Notwithstanding the provisions of 335-13-15-.07(2)(a) and (b)1., a CCR surface impoundment may continue to receive CCR and/or non-CCR wastestreams if the facility will cease operation of the coal-fired boiler(s) and complete closure of the impoundment within the timeframes specified in 335-13-15-.07(4)(f)2.(iv), but in the interim period (prior to closure of the coal-fired boiler), the facility must continue to use the CCR surface impoundment due to the absence of alternative disposal capacity

both on and off-site of the facility. To qualify under 335-13-15-.07(4)(f)2., all of the following criteria must be met:

(i) No alternative disposal capacity is available on or off-site. An increase in costs or the inconvenience of existing capacity is not sufficient to support qualification under this section.

(ii) Potential risks to human health and the environment from the continued operation of the CCR surface impoundment have been adequately mitigated;

(iii) The facility is in compliance with all other requirements of this chapter, including the requirement to conduct any necessary corrective action; and

(iv) The coal-fired boilers must cease operation and closure of the impoundment must be completed within the following timeframes:

(I) For a CCR surface impoundment that is 40 acres or smaller, the coal-fired boiler(s) must cease operation and the CCR surface impoundment must complete closure no later than October 17, 2023.

(II) For a CCR surface impoundment that is larger than 40 acres, the coal-fired boiler(s) must cease operation, and the CCR surface impoundment must complete closure no later than October 17, 2028.

(v) The owner or operator of the CCR surface impoundment must submit to the Department the following documentation that the criteria in 335-13-15-.07(4)(f)2.(i) through (iv) have been met, as specified in 335-13-15-.07(4)(f)2.(v)(I) through (IV).

(I) To demonstrate that the criteria in 335-13-15-.07(4)(f)2.(i) have been met the owner or operator must submit a narrative that explains the options considered to obtain alternative capacity for CCR and/or non-CCR wastestreams both on and off-site.

(II) To demonstrate that the criteria in 335-13-15-.07(4)(f)2.(ii) have been met, the owner or operator must submit a risk mitigation plan describing the measures that will be taken to expedite any required corrective action, and that contains all of the following elements:

I. A discussion of any physical or chemical measures a facility can take to limit any future releases to groundwater during operation.

II. A discussion of the surface impoundment's groundwater monitoring data and any found exceedances; the delineation of the plume (if necessary based on the groundwater monitoring data); identification of any nearby receptors that might

be exposed to current or future groundwater contamination; and how such exposures could be promptly mitigated.

III. A plan to expedite and maintain the containment of any contaminant plume that is either present or identified during continued operation of the unit.

(III) To demonstrate that the criteria in 335-13-15-.07(4)(f)2.(iii) have been met, the owner or operator must submit all of the following:

I. A certification signed by the owner or operator that the facility is in compliance with all of the requirements of this chapter;

II. Visual representation of hydrogeologic information at and around the CCR unit(s) that supports the design, construction and installation of the groundwater monitoring system. This includes all of the following:

A. Map(s) of groundwater monitoring well locations in relation to the CCR unit;

B. Well construction diagrams and drilling logs for all groundwater monitoring wells; and

C. Maps that characterize the direction of groundwater flow accounting for seasonal variations;

III. Constituent concentrations, summarized in table form, at each groundwater monitoring well monitored during each sampling event;

IV. Description of site hydrogeology including stratigraphic cross-sections;

V. Any corrective measures assessment required by 335-13-15-.06(7);

VI. Any progress reports on remedy selection and design and the report of final remedy selection required by 335-13-15-.06(8);

VII. The most recent structural stability assessment required by 335-13-15-.04(4)(d); and

VIII. The most recent safety factor assessment required by 335-13-15-.04(4)(e).

(IV) To demonstrate that the criteria in 335-13-15-.07(4)(f)2.(iv) have been met, the owner or operator must submit the closure plan required by 335-13-15-.07(3)(b) and a narrative that specifies and justifies the date by which they intend to cease receipt of waste into the unit in order to meet the closure deadlines.

(vi) The owner or operator at all times bears responsibility for demonstrating to the Department qualification for authorization under this section. Failure to remain in compliance with any of the requirements of this chapter will result in the automatic loss of authorization under this section.

(vii) The owner or operator must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(i), the notification requirements specified in 335-13-15-.08(2)(i) and the internet posting requirements specified in 335-13-15-.08(3)(i).

(viii) Upon submission of the demonstration to the Director, the owner or operator must prepare and place in the facility's operating record and on its publicly accessible CCR internet site a notification that the demonstration has been submitted, along with a copy of the demonstration.

(ix) Upon receipt of a decision pursuant to 335-13-15-.07(4)(f)3., the owner or operator must place a copy of the decision in the facility's operating record and on the facility's publicly accessible CCR internet site.

(x) The owner or operator must prepare an annual progress report documenting the continued lack of alternative capacity and the progress towards the closure of the CCR surface impoundment. The owner or operator has completed the progress report when the report has been submitted to the Department and placed in the facility's operating record as required by 335-13-15-.08(1)(i)(21).

3. Process to Obtain Authorization.

(i) Deadlines for Submission.

(I) The owner or operator must submit the demonstration required under 335-13-15-.07(4)(f)1.(iv), for an alternative cease receipt of waste deadline for a CCR surface impoundment pursuant to 335-13-15-.07(4)(f)1., to the Director for approval no later than November 30, 2020.

(II) An owner or operator may seek additional time beyond the time granted in the initial approval, in accordance with 335-13-15-.07(4)(f)1.(vii), by submitting a new demonstration, as required under 335-13-15-.07(4)(f)1.(iv), to the Director for approval, no later than fourteen days from determining that the cease receipt of waste deadline will not be met.

(III) The owner or operator must submit the demonstration required under 335-13-15-.07(4)(f)2.(v) to the Director for approval no later than November 30, 2020.

(ii) The Department will evaluate the demonstration and may request additional information to complete its review. Submission of a complete demonstration will toll the facility's deadline to cease receipt of waste until issuance of a decision under 335-13-15-.07(4)(f)3.(iv). Incomplete submissions will not toll the

facility's deadline and will be denied. The owner or operator will be notified in writing if the request is denied, and informed of the reasons for the denial and the appeal procedures as provided in chapter 335-2-1 of the ADEM Administrative Code, 13-1-07. All decisions issued under 335-13-15-.07(4)(f)3.(ii) or (iv) will contain the facility's deadline to cease receipt of waste.

(iii) The Department shall provide notice and an opportunity for public comment on its proposed decision on a complete demonstration. The public comment period will close 30 days after the notice is published in a newspaper of general circulation in the area where the CCR unit is located.

(iv) After consideration of the comments, the Department will issue its decision on the alternative compliance deadline within a reasonable timeframe.

4. Transferring between site-specific alternatives. An owner or operator authorized to continue operating a CCR surface impoundment under this section may at any time request authorization to continue operating the impoundment pursuant to another paragraph of 335-13-15-.07(4)(f), by submitting the information in 335-13-15-.07(4)(f)4.(i) or (ii).

(i) Transfer from 335-13-15-.07(4)(f)1. to 335-13-15-.07(4)(f)2. The owner or operator of a surface impoundment authorized to operate pursuant to 335-13-15-.07(4)(f)1. may request authorization to instead operate the surface impoundment in accordance with the requirements of 335-13-15-.07(4)(f)2., by submitting a new demonstration that meets the requirements of 335-13-15-.07(4)(f)2.(v) to the Director. The Department may approve the request only upon determining that the criteria in 335-13-15-.07(4)(f)2.(i) through (iv) have been met.

(ii) Transfer from 335-13-15-.07(4)(f)2. to 335-13-15-.07(4)(f)1. The owner or operator of a surface impoundment authorized to operate pursuant to 335-13-15-.07(4)(f)2. may request authorization to instead operate the surface impoundment in accordance with the requirements of 335-13-15-.07(4)(f)1., by submitting a new demonstration that meets the requirements of 335-13-15-.07(4)(f)1.(iv) to the Director. The Department may approve the request only upon determining that the criteria at 335-13-15-.07(4)(f)1.(i) through (iii) and (vi) have been met.

(iii) The procedures in 335-13-15-.07(4)(f)3. will apply to all requests for transfer under 335-13-15-.07(4)(f)4.

(5) Post-closure care requirements.

(a) Applicability.

1. Except as provided by 335-13-15-.07(5)(a)2., this section applies to owners or operators of CCR landfills, CCR surface impoundments, and all lateral expansions of CCR units that are subject to the closure criteria under 335-13-15-.07(3).

2. An owner or operator of a CCR unit that elects to close a CCR unit by removing CCR as provided by 335-13-15-.07(3)(c) is not subject to the post-closure care criteria under this section.

(b) Post-closure care maintenance requirements. Following closure of the CCR unit, the owner or operator must conduct post-closure care for the CCR unit, which must consist of at least the following:

1. Maintaining the integrity and effectiveness of the final cover system, including making repairs to the final cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover;

2. If the CCR unit is subject to the design criteria under 335-13-15-.04(1), maintaining the integrity and effectiveness of the leachate collection and removal system and operating the leachate collection and removal system in accordance with the requirements of 335-13-15-.04(1); and

3. Maintaining the groundwater monitoring system and monitoring the groundwater in accordance with the requirements of 335-13-15-.06(1) through 335-13-15-.06(9).

(c) Post-closure care period.

1. Except as provided by 335-13-15-.07(5)(c)2., the owner or operator of the CCR unit must conduct post-closure care for 30 years.

2. If at the end of the post-closure care period the owner or operator of the CCR unit is operating under assessment monitoring in accordance with 335-13-15-.06(6), the owner or operator must continue to conduct post-closure care until the owner or operator returns to detection monitoring in accordance with 335-13-15-.06(6)(e).

(d) Written post-closure plan.

1. Content of the plan. The owner or operator of a CCR unit must prepare and submit to the Department as part of the permit application a written post-closure plan that includes, at a minimum, the information specified in 335-13-15-.07(5)(d)1.(i) through (iii).

(i) A description of the monitoring and maintenance activities required in 335-13-15-.07(5)(b) for the CCR unit, and the frequency at which these activities will be performed;

(ii) The name, address, telephone number, and email address of the

person or office to contact about the facility during the post-closure care period;
and

(iii) A description of the planned uses of the property during the post-closure period. Post-closure use of the property shall not disturb the integrity of the final cover, liner(s), or any other component of the containment system, or the function of the monitoring systems unless necessary to comply with the requirements in this chapter. Any other disturbance may be approved by the Department if the owner or operator of the CCR unit demonstrates that disturbance of the final cover, liner, or other component of the containment system, including any removal of CCR, will not increase the potential threat to human health or the environment. The demonstration must be certified by a qualified professional engineer, submitted to the Department for approval and placed in the operating record and on the owners or operator's publicly accessible internet site.

2. Deadline to prepare the initial written post-closure plan.

(i) Existing CCR landfills and existing CCR surface impoundments. No later than October 17, 2016, the owner or operator of the CCR unit must prepare an initial written post-closure plan consistent with the requirements specified in 335-13-15-.07(5)(d)1.

(ii) New CCR landfills, new CCR surface impoundments, and any lateral expansion of a CCR unit. No later than the date of the initial receipt of CCR in the CCR unit, the owner or operator must prepare an initial written post-closure plan consistent with the requirements specified in 335-13-15-.07(5)(d)1.

(iii) The owner or operator has completed the written post-closure plan when the plan, including the certification required by 335-13-15-.07(5)(d)4., has been placed in the facility's operating record as required by 335-13-15-.08(1)(i)13.

3. Amendment of a written post-closure plan.

(i) The owner or operator may amend the initial or any subsequent written post-closure plan developed pursuant to 335-13-15-.07(5)(d)1. at any time.

(ii) The owner or operator must amend the written closure plan whenever:

(I) There is a change in the operation of the CCR unit that would substantially affect the written post-closure plan in effect; or

(II) After post-closure activities have commenced, unanticipated events necessitate a revision of the written post-closure plan.

(iii) The owner or operator must amend the written post-closure plan at least 60 days prior to a planned change in the operation of the facility or CCR unit, or no later than 60 days after an unanticipated event requires the need to revise an existing written post-closure plan. If a written post-closure plan is revised after post-closure activities have commenced for a CCR unit, the owner or operator must amend the written post-closure plan no later than 30 days following the triggering event.

4. The owner or operator of the CCR unit must obtain a written certification from a qualified professional engineer that the initial and any amendment of the written post-closure plan meets the requirements of this section. The post-closure plan, as well as the certification from a qualified professional engineer, must be submitted to the Department for approval.

(e) Notification of completion of post-closure care period. No later than 60 days following the completion of the post-closure care period, the owner or operator of the CCR unit must prepare a notification verifying that post-closure care has been completed. The notification must include the certification by a qualified professional engineer verifying that post-closure care has been completed in accordance with the closure plan specified in 335-13-15-.07(5)(d) and the requirements of this section. The owner or operator has completed the notification when it has been submitted to the Department and placed in the facility's operating record as required by 335-13-15-.08(1)(i)14.

(f) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in 335-13-15-.08(1)(i), the notification requirements specified in 335-13-15-.08(2)(i), and the internet requirements specified in 335-13-15-.08(3)(i).

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335-13-15-.08 Recordkeeping, Notification, and Posting of Information to the Internet.

(1) Recordkeeping requirements.

(a) Each owner or operator of a CCR unit subject to the requirements of this chapter must maintain files of all information required by this section in a written operating record at their facility.

(b) Unless specified otherwise, each file must be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, record, or study.

(c) An owner or operator of more than one CCR unit subject to the provisions of this chapter may comply with the requirements of this section in one recordkeeping system provided the system identifies each file by the name of each CCR unit. The files may be maintained on microfilm, on a computer, on computer disks, on a storage system accessible by a computer, on magnetic tape disks, or on microfiche.

(d) The owner or operator of a CCR unit must submit to the Department any demonstration or documentation that is required by this chapter, or any other demonstration or documentation, if requested.

(e) Location restrictions. The owner or operator of a CCR unit subject to this chapter must place the demonstrations documenting whether or not the CCR unit is in compliance with the requirements under 335-13-15-.03(1)(a), 335-13-15-.03(2)(a), 335-13-15-.03(3)(a), 335-13-15-.03(4)(a), and 335-13-15-.03(5)(a), as it becomes available, in the facility's operating record.

(f) Design criteria. The owner or operator of a CCR unit subject to this chapter must place the following information, as it becomes available, in the facility's operating record:

1. The design and construction certifications as required by 335-13-15-.04(1)(~~fe~~) and (~~fg~~).
2. The documentation of liner type as required by 335-13-15-.04(2)(a).
3. The design and construction certifications as required by 335-13-15-.04(3)(c) and (d).
4. Documentation prepared by the owner or operator stating that the permanent identification marker was installed as required by 335-13-15-.04(4)(a)1. and 335-13-15-.04(5)(a)1.
5. The initial and periodic hazard potential classification assessments

as required by 335-13-15-.04(4)(a)2. and 335-13-15-.04(5)(a)2.

6. The emergency action plan (EAP), and any amendment of the EAP, as required by 335-13-15-.04(4)(a)3. and 335-13-15-.04(5)(a)3., except that only the most recent EAP must be maintained in the facility's operating record irrespective of the time requirement specified in 335-13-15-.08(1)(b).

7. Documentation prepared by the owner or operator recording the annual face-to-face meeting or exercise between representatives of the owner or operator of the CCR unit and the local emergency responders as required by 335-13-15-.04(4)(a)3.(i)(V) and 335-13-15-.04(5)(a)3.(i)(V).

8. Documentation prepared by the owner or operator recording all activations of the Emergency Action Plan (EAP) as required by 335-13-15-.04(4)(a)3.(v) and 335-13-15-.04(5)(a)3.(v).

9. The history of construction, and any revisions of it, as required by 335-13-15-.04(4)(c), except that these files must be maintained until the CCR unit completes closure of the unit in accordance with 335-13-15-.07(3).

10. The initial and periodic structural stability assessments as required by 335-13-15-.04(4)(d) and 335-13-15-.04(5)(d).

11. Documentation detailing the corrective measures taken to remedy the deficiency or release as required by 335-13-15-.04(4)(d)2. and 335-13-15-.04(5)(d)2.

12. The initial and periodic safety factor assessments as required by 335-13-15-.04(4)(e) and 335-13-15-.04(5)(e).

13. The design and construction plans, and any revisions of it, as required by 335-13-15-.04(5)(c), except that these files must be maintained until the CCR unit completes closure of the unit in accordance with 335-13-15-.07(3).

(g) Operating criteria. The owner or operator of a CCR unit subject to this chapter must place the following information, as it becomes available, in the facility's operating record:

1. The CCR fugitive dust control plan, and any subsequent amendment of the plan, required by 335-13-15-.05(1)(b), except that only the most recent control plan must be maintained in the facility's operating record irrespective of the time requirement specified in 335-13-15-.08(1)(b).

2. The annual CCR fugitive dust control report required by 335-13-15-.05(1)(c).

3. The initial and periodic run-on and run-off control system plans as

required by 335-13-15-.05(2)(c).

4. The initial and periodic inflow design flood control system plan as required by 335-13-15-.05(3)(c).

5. Documentation recording the results of each inspection and instrumentation monitoring by a qualified person as required by 335-13-15-.05(4)(a).

6. The periodic inspection report as required by 335-13-15-.05(4)(b)2.

7. Documentation detailing the corrective measures taken to remedy the deficiency or release as required by 335-13-15-.05(4)(b)5. and 335-13-15-.05(5)(b)5.

8. Documentation recording the results of the weekly inspection by a qualified person as required by 335-13-15-.05(5)(a)1.(ii).

9. The periodic inspection report as required by 335-13-15-.05(5)(b)2.

(h) Groundwater monitoring and corrective action. The owner or operator of a CCR unit subject to this chapter must place the following information, as it becomes available, in the facility's operating record:

1. The annual groundwater monitoring and corrective action report as required by 335-13-15-.06(1)(e).

2. Documentation of the design, installation, development, and decommissioning of any monitoring wells, piezometers and other measurement, sampling, and analytical devices as required by 335-13-15-.06(2)(e)4.

3. The groundwater monitoring system certification as required by 335-13-15-.06(2)(f).

4. The selection of a statistical method certification as required by 335-13-15-.06(4)(f)6.

5. Within 30 days of establishing an assessment monitoring program, the notification as required by 335-13-15-.06(5)(e)3.

6. The results of Appendices III and IV constituent concentrations as required by 335-13-15-.06(6)(d)2.

7. Within 30 days of returning to a detection monitoring program, the notification as required by 335-13-15-.06(6)(e).

8. Within 30 days of detecting one or more constituents in Appendix

IV at statistically significant levels above the groundwater protection standard, the notifications as required by 335-13-15-.06(6)(g).

9. Within 30 days of initiating the assessment of corrective measures requirements, the notification as required by 335-13-15-.06(6)(g)6.

10. The completed assessment of corrective measures as required by 335-13-15-.06(7)(d).

11. Documentation prepared by the owner or operator recording the public meeting for the corrective measures assessment as required by 335-13-15-.06(7)(e).

12. The semiannual report describing the progress in selecting and designing the remedy and the selection of remedy report as required by 335-13-15-.06(8)(a), except that the selection of remedy report must be maintained until the remedy has been completed.

13. Within 30 days of completing the remedy, the notification as required by 335-13-15-.06(9)(e).

14. The semi-annual groundwater monitoring report as required by 335-13-15-.06(1)(f).

(i) Closure and post-closure care. The owner or operator of a CCR unit subject to this chapter must place the following information, as it becomes available, in the facility's operating record:

1. The notification of intent to initiate closure of the CCR unit as required by 335-13-15-.07(1)(e)1.(i).

2. [Reserved]

3. [Reserved]

4. The written closure plan, and any amendment of the plan, as required by 335-13-15-.07(3)(b), except that only the most recent closure plan must be maintained in the facility's operating record irrespective of the time requirement specified in 335-13-15-.08(1)(b).

5. The written demonstration(s), including the certification required by 335-13-15-.07(3)(e)2.(iii), for a time extension for initiating closure as required by 335-13-15-.07(3)(e)2.(ii).

6. The written demonstration(s), including the certification required by 335-13-15-.07(3)(f)2.(iii), for a time extension for completing closure as required by 335-13-15-.07(3)(f)2.(i).

7. The notification of intent to close a CCR unit as required by 335-13-15-.07(3)(g).

8. The notification of completion of closure of a CCR unit as required by 335-13-15-.07(3)(h).

9. The notification recording a notation on the deed as required by 335-13-15-.07(3)(i).

10. The notification recording an environmental covenant as required by 335-13-15-.07(3)(j).

11. The notification of intent to comply with the alternative closure requirements as required by 335-13-15-.07(4)(c)1.

12. The annual progress reports under the alternative closure requirements as required by 335-13-15-.07(4)(c)2.

13. The written post-closure plan, and any amendment of the plan, as required by 335-13-15-.07(5)(d), except that only the most recent closure plan must be maintained in the facility's operating record irrespective of the time requirement specified in 335-13-15-.08(1)(b).

14. The notification of completion of post-closure care period as required by 335-13-15-.07(5)(e).

15. The notification of intent to comply with the site-specific alternative to initiation of closure due to the development of alternative capacity being technically infeasible as required by 335-13-15-.07(4)(f)1.(ix)(I).

16. The approved or denied demonstration for the site-specific alternative to initiation of closure due to the development of alternative capacity being technically infeasible as required by 335-13-15-.07(4)(f)1.(ix)(II).

17. The notification for requesting additional time to the alternative cease receipt of waste deadline as required by 335-13-15-.07(4)(f)1.(ix)(III).

18. The semi-annual progress reports for the site-specific alternative to initiation of closure due to the development of alternative capacity being technically infeasible as required by 335-13-15-.07(4)(f)1.(xi).

19. The notification of intent to comply with the site-specific alternative to initiation of closure due to permanent cessation of a coal-fired boiler(s) by a date certain as required by 335-13-15-.07(4)(f)2.(viii).

20. The approved or denied demonstration for the site-specific alternative

to initiation of closure due to permanent cessation of a coal-fired boiler(s) by a date certain as required by 335-13-15-.07(4)(f)2.(ix).

21. The annual progress report for the site-specific alternative to initiation of closure due to permanent cessation of a coal-fired boiler(s) by a date certain as required by 335-13-15-.07(4)(f)2.(x).

(j) Retrofit criteria. The owner or operator of a CCR unit subject to this chapter must place the following information, as it becomes available, in the facility's operating record:

1. The written retrofit plan, and any amendment of the plan, as required by 335-13-15-.07(3)(l)2., except that only the most recent retrofit plan must be maintained in the facility's operating record irrespective of the time requirement specified in 335-13-15-.08(1)(b).

2. The notification of intent that the retrofit activities will proceed in accordance with the alternative procedures in 335-13-15-.07(4).

3. The annual progress reports required under the alternative requirements as required by 335-13-15-.07(4).

4. The written demonstration(s), including the certification in 335-13-15-.07(3)(f)2.(iii), for a time extension for completing retrofit activities as required by 335-13-15-.07(3)(l)3.

5. The notification of intent to initiate retrofit of a CCR unit as required by 335-13-15-.07(3)(l)5.

6. The notification of completion of retrofit activities as required by 335-13-15-.07(3)(l)6.

(2) Notification requirements.

(a) The notifications required under 335-13-15-.08(2)(e) through (i) must be sent to the Director before the close of business on the day the notification is required to be completed. For purposes of this section, before the close of business means the notification must be postmarked or sent by electronic mail (email). If a notification deadline falls on a weekend or state holiday, the notification deadline is automatically extended to the next business day.

(b) If any CCR unit is located in its entirety within Indian Country, the notifications of this section must be sent to the appropriate Tribal authority. If any CCR unit is located in part within Indian Country, the notifications of this section must be sent both to the Director and Tribal authority.

(c) Notifications may be combined as long as the deadline requirement for each notification is met.

(d) Unless otherwise required in this section, the notifications specified in this section must be sent to the Director within 30 days of placing in the operating record the information required by 335-13-15-.08(1).

(e) Location restrictions. The owner or operator of a CCR unit subject to the requirements of this chapter must notify the Director that each demonstration specified under 335-13-15-.08(1)(e) has been placed in the operating record and on the owner or operator's publicly accessible internet site.

(f) Design criteria. The owner or operator of a CCR unit subject to this chapter must notify the Director when information has been placed in the operating record and on the owner or operator's publicly accessible internet site. The owner or operator must:

1. Within 60 days of commencing construction of a new CCR unit, provide notification of the availability of the design certification specified under 335-13-15-.08(1)(f)1. or 3. If the owner or operator of the CCR unit elects to install an alternative composite liner, the owner or operator must also submit to the Director a copy of the alternative composite liner design.

2. No later than the date of initial receipt of CCR by a new CCR unit, provide notification of the availability of the construction certification specified under 335-13-15-.08(1)(f)1. or 3.

3. Provide notification of the availability of the documentation of liner type specified under 335-13-15-.08(1)(f)2.

4. Provide notification of the availability of the initial and periodic hazard potential classification assessments specified under 335-13-15-.08(1)(f)5.

5. Provide notification of the availability of Emergency Action Plan (EAP), and any revisions of the EAP, specified under 335-13-15-.08(1)(f)6.

6. Provide notification of the availability of documentation prepared by the owner or operator recording the annual face-to-face meeting or exercise between representatives of the owner or operator of the CCR unit and the local emergency responders specified under 335-13-15-.08(1)(f)7.

7. Provide notification of documentation prepared by the owner or operator recording all activations of the Emergency Action Plan (EAP) specified under 335-13-15-.08(1)(f)8.

8. Provide notification of the availability of the history of construction, and any revision of it, specified under 335-13-15-.08(1)(f)9.

9. Provide notification of the availability of the initial and periodic structural stability assessments specified under 335-13-15-.08(1)(f)10.

10. Provide notification of the availability of the documentation detailing the corrective measures taken to remedy the deficiency or release specified under 335-13-15-.08(1)(f)11.

11. Provide notification of the availability of the initial and periodic safety factor assessments specified under 335-13-15-.08(1)(f)12.

12. Provide notification of the availability of the design and construction plans, and any revision of them, specified under 335-13-15-.08(1)(f)13.

(g) Operating criteria. The owner or operator of a CCR unit subject to this chapter must notify the Director when information has been placed in the operating record. The owner or operator must:

1. Provide notification of the availability of the CCR fugitive dust control plan, or any subsequent amendment of the plan, specified under 335-13-15-.08(1)(g)1.

2. Provide notification of the availability of the annual CCR fugitive dust control report specified under 335-13-15-.08(1)(g)2.

3. Provide notification of the availability of the initial and periodic run-on and run-off control system plans specified under 335-13-15-.08(1)(g)3.

4. Provide notification of the availability of the initial and periodic inflow design flood control system plans specified under 335-13-15-.08(1)(g)4.

5. Provide notification of the availability of the periodic inspection reports specified under 335-13-15-.08(1)(g)6.

6. Provide notification of the availability of the documentation detailing the corrective measures taken to remedy the deficiency or release specified under 335-13-15-.08(1)(g)7.

7. Provide notification of the availability of the periodic inspection reports specified under 335-13-15-.08(1)(g)9.

(h) Groundwater monitoring and corrective action. The owner or operator of a CCR unit subject to this chapter must notify the Director when information has been placed in the operating record and on the owner or operator's publicly accessible internet site. The owner or operator must:

1. Provide notification of the availability of the annual groundwater

monitoring and corrective action report specified under 335-13-15-.08(1)(h)1.

2. Provide notification of the availability of the groundwater monitoring system certification specified under 335-13-15-.08(1)(h)3.

3. Provide notification of the availability of the selection of a statistical method certification specified under 335-13-15-.08(1)(h)4.

4. Provide notification that an assessment monitoring program has been established as specified under 335-13-15-.08(1)(h)5.

5. Provide notification that the CCR unit is returning to a detection monitoring program as specified under 335-13-15-.08(1)(h)7.

6. Provide notification that one or more constituents in Appendix IV have been detected at statistically significant levels above the groundwater protection standard and the notifications to land owners as specified under 335-13-15-.08(1)(h)8.

7. Provide notification that an assessment of corrective measures has been initiated as specified under 335-13-15-.08(1)(h)9.

8. Provide notification of the availability of assessment of corrective measures as specified under 335-13-15-.08(1)(h)10.

9. Provide notification of the availability of the semiannual report describing the progress in selecting and designing the remedy and the selection of remedy report specified under 335-13-15-.08(1)(h)12.

10. Provide notification of the completion of the remedy specified under 335-13-15-.08(1)(h)13.

(i) Closure and post-closure care. The owner or operator of a CCR unit subject to this chapter must notify the Director when information has been placed in the operating record and on the owner or operator's publicly accessible internet site. The owner or operator must:

1. Provide notification of the intent to initiate closure of the CCR unit specified under 335-13-15-.08(1)(i)1.

2. [Reserved]

3. [Reserved]

4. Provide notification of the availability of the written closure plan, and any amendment of the plan, specified under 335-13-15-.08(1)(i)4.

5. Provide notification of the availability of the demonstration(s) for a time extension for initiating closure specified under 335-13-15-.08(1)(i)5.

6. Provide notification of the availability of the demonstration(s) for a time extension for completing closure specified under 335-13-15-.08(1)(i)6.

7. Provide notification of intent to close a CCR unit specified under 335-13-15-.08(1)(i)7.

8. Provide notification of completion of closure of a CCR unit specified under 335-13-15-.08(1)(i)8.

9. Provide notification of the deed notation as required by 335-13-15-.08(1)(i)9.

10. Provide notification of the environmental covenant as required by 335-13-15-.08(1)(i)10.

11. Provide notification of intent to comply with the alternative closure requirements specified under 335-13-15-.08(1)(i)11.

12. The annual progress reports under the alternative closure requirements as required by 335-13-15-.08(1)(i)12.

13. Provide notification of the availability of the written post-closure plan, and any amendment of the plan, specified under 335-13-15-.08(1)(i)13.

14. Provide notification of completion of post-closure care as specified under 335-13-15-.08(1)(i)14.

15. Provide the notification of intent to comply with the site-specific alternative to initiation of closure due to the development of alternative capacity being technically infeasible as specified under 335-13-15-.08(1)(i)15.

16. Provide the approved or denied demonstration for the site-specific alternative to initiation of closure due to the development of alternative capacity being technically infeasible as specified under 335-13-15-.08(1)(i)16.

17. Provide the notification for requesting additional time to the alternative cease receipt of waste deadline as required by 335-13-15-.08(1)(i)17.

18. The semi-annual progress reports for the site-specific alternative to initiation of closure due to the development of alternative capacity being technically infeasible as specified under 335-13-15-.08(1)(i)18.

19. Provide the notification of intent to comply with the site-specific

alternative to initiation of closure due to permanent cessation of a coal-fired boiler(s) by a date certain as specified under 335-13-15-.08(1)(i)19.

20. Provide the approved or denied demonstration for the site-specific alternative to initiation of closure due to permanent cessation of a coal-fired boiler(s) by a date certain as required by 335-13-15-.08(1)(i)20.

21. The annual progress report for the site-specific alternative to initiation of closure due to permanent cessation of a coal-fired boiler(s) by a date certain as required by 335-13-15-.08(1)(i)(21).

(j) Retrofit criteria. The owner or operator of a CCR unit subject to this chapter must notify the Director when information has been placed in the operating record and on the owner or operator's publicly accessible internet site. The owner or operator must:

1. Provide notification of the availability of the written retrofit plan, and any amendment of the plan, specified under 335-13-15-.08(1)(j)1.

2. Provide notification of intent to comply with the alternative retrofit requirements specified under 335-13-15-.08(1)(j)2.

3. The annual progress reports under the alternative retrofit requirements as required by 335-13-15-.08(1)(j)3.

4. Provide notification of the availability of the demonstration(s) for a time extension for completing retrofit activities specified under 335-13-15-.08(1)(j)4.

5. Provide notification of intent to initiate retrofit of a CCR unit specified under 335-13-15-.08(1)(j)5.

6. Provide notification of completion of retrofit activities specified under 335-13-15-.08(1)(j)6.

(3) Publicly accessible internet site requirements.

(a) Each owner or operator of a CCR unit subject to the requirements of this chapter must maintain a publicly accessible internet site (CCR website) containing the information specified in this section. The owner or operator's website must be titled "CCR Rule Compliance Data and Information." The website must ensure that all information required to be posted is immediately available to anyone visiting the site, without requiring any prerequisite, such as registration or a requirement to submit a document request. All required information must be clearly identifiable and must be able to be immediately printed and downloaded by anyone accessing the site. If the owner/operator changes the web address (i.e., Uniform Resource Locator (URL)) at any point,

they must notify Director within 14 days of making the change. The facility's CCR website must also have a "contact us" form or a specific email address posted on the website for the public to use to submit questions and issues relating to the availability of information on the website.

(b) An owner or operator of more than one CCR unit subject to the provisions of this chapter may comply with the requirements of this section by using the same internet site for multiple CCR units provided the CCR website clearly delineates information by the name or identification number of each unit.

(c) Unless otherwise required in this section, the information required to be posted to the CCR website must be made available to the public for at least five years following the date on which the information was first posted to the CCR website.

(d) Unless otherwise required in this section, the information must be posted to the CCR website within 30 days of placing the pertinent information required by 335-13-15-.08(1) in the operating record.

(e) Location restrictions. The owner or operator of a CCR unit subject to this chapter must place each demonstration specified under 335-13-15-.08(1)(e) on the owner or operator's CCR website.

(f) Design criteria. The owner or operator of a CCR unit subject to this chapter must place the following information on the owner or operator's CCR website:

1. Within 60 days of commencing construction of a new unit, the design certification specified under 335-13-15-.08(1)(f)1. or 3.

2. No later than the date of initial receipt of CCR by a new CCR unit, the construction certification specified under 335-13-15-.08(1)(f)1. or 3.

3. The documentation of liner type specified under 335-13-15-.08(1)(f)2.

4. The initial and periodic hazard potential classification assessments specified under 335-13-15-.08(1)(f)5.

5. The Emergency Action Plan (EAP) specified under 335-13-15-.08(1)(f)6., except that only the most recent EAP must be maintained on the CCR website irrespective of the time requirement specified in 335-13-15-.08(3)(c).

6. Documentation prepared by the owner or operator recording the annual face-to-face meeting or exercise between representatives of the owner or operator of the CCR unit and the local emergency responders specified under 335-13-15-.08(1)(f)7.

7. Documentation prepared by the owner or operator recording any activation of the Emergency Action Plan (EAP) specified under 335-13-15-.08(1)(f)8.

8. The history of construction, and any revisions of it, specified under 335-13-15-.08(1)(f)9.

9. The initial and periodic structural stability assessments specified under 335-13-15-.08(1)(f)10.

10. The documentation detailing the corrective measures taken to remedy the deficiency or release specified under 335-13-15-.08(1)(f)11.

11. The initial and periodic safety factor assessments specified under 335-13-15-.08(1)(f)12.

12. The design and construction plans, and any revisions of them, specified under 335-13-15-.08(1)(f)13.

(g) Operating criteria. The owner or operator of a CCR unit subject to this chapter must place the following information on the owner or operator's CCR website:

1. The CCR fugitive dust control plan, or any subsequent amendment of the plan, specified under 335-13-15-.08(1)(g)1. except that only the most recent plan must be maintained on the CCR website irrespective of the time requirement specified in 335-13-15-.08(3)(c).

2. The annual CCR fugitive dust control report specified under 335-13-15-.08(1)(g)2.

3. The initial and periodic run-on and run-off control system plans specified under 335-13-15-.08(1)(g)3.

4. The initial and periodic inflow design flood control system plans specified under 335-13-15-.08(1)(g)4.

5. The periodic inspection reports specified under 335-13-15-.08(1)(g)6.

6. The documentation detailing the corrective measures taken to remedy the deficiency or release specified under 335-13-15-.08(1)(g)7.

7. The periodic inspection reports specified under 335-13-15-.08(1)(g)9.

(h) Groundwater monitoring and corrective action. The owner or operator of a CCR unit subject to this chapter must place the following information on the owner or operator's CCR website:

1. The annual groundwater monitoring and corrective action report specified under 335-13-15-.08(1)(h)1.

2. The groundwater monitoring system certification specified under 335-13-15-.08(1)(h)3.

3. The selection of a statistical method certification specified under 335-13-15-.08(1)(h)4.

4. The notification that an assessment monitoring program has been established as specified under 335-13-15-.08(1)(h)5.

5. The notification that the CCR unit is returning to a detection monitoring program as specified under 335-13-15-.08(1)(h)7.

6. The notification that one or more constituents in Appendix IV have been detected at statistically significant levels above the groundwater protection standard and the notifications to land owners specified under 335-13-15-.08(1)(h)8.

7. The notification that an assessment of corrective measures has been initiated specified under 335-13-15-.08(1)(h)9.

8. The assessment of corrective measures specified under 335-13-15-.08(1)(h)10.

9. The semiannual reports describing the progress in selecting and designing the remedy and the selection of remedy report specified under 335-13-15-.08(1)(h)12., except that the selection of the remedy report must be maintained until the remedy has been completed.

10. The notification that the remedy has been completed specified under 335-13-15-.08(1)(h)13.

11. The semi-annual groundwater monitoring report specified under 335-13-15-.08(1)(h)14.

(i) Closure and post-closure care. The owner or operator of a CCR unit subject to this chapter must place the following information on the owner or operator's CCR website:

1. The notification of intent to initiate closure of the CCR unit specified under 335-13-15-.08(1)(i)1.

2. [Reserved]
3. [Reserved]
4. The written closure plan, and any amendment of the plan, specified under 335-13-15-.08(1)(i)4.
5. The demonstration(s) for a time extension for initiating closure specified under 335-13-15-.08(1)(i)5.
6. The demonstration(s) for a time extension for completing closure specified under 335-13-15-.08(1)(i)6.
7. The notification of intent to close a CCR unit specified under 335-13-15-.08(1)(i)7.
8. The notification of completion of closure of a CCR unit specified under 335-13-15-.08(1)(i)8.
9. The notification recording a notation on the deed as required by 335-13-15-.08(1)(i)9.
10. The notification recording an environmental covenant as required by 335-13-15-.08(1)(i)10.
11. The notification of intent to comply with the alternative closure requirements as required by 335-13-15-.08(1)(i)11.
12. The annual progress reports under the alternative closure requirements as required by 335-13-15-.08(1)(i)12.
13. The written post-closure plan, and any amendment of the plan, specified under 335-13-15-.08(1)(i)13.
14. The notification of completion of post-closure care specified under 335-13-15-.08(1)(i)14.
15. The notification of intent to comply with the site-specific alternative to initiation of closure due to the development of alternative capacity being technically infeasible as specified under 335-13-15-.08(1)(i)15.
16. The approved or denied demonstration for the site-specific alternative to initiation of closure due to the development of alternative capacity being technically infeasible ~~as required by~~ as specified under 335-13-15-.08(1)(i)16.
17. The notification for requesting additional time to the alternative cease

receipt of waste deadline as required by 335-13-15-.08(1)(i)17.

18. The semi-annual progress reports for the site-specific alternative to initiation of closure due to the development of alternative capacity being technically infeasible as specified under 335-13-15-.08(1)(i)18.

19. The notification of intent to comply with the site-specific alternative to initiation of closure due to permanent cessation of a coal-fired boiler(s) by a date certain as specified under 335-13-15-.08(1)(i)19.

20. The approved or denied demonstration for the site-specific alternative to initiation of closure due to permanent cessation of a coal-fired boiler(s) by a date certain as required by 335-13-15-.08(1)(i)20.

21. The annual progress report for the site-specific alternative to initiation of closure due to permanent cessation of a coal-fired boiler(s) by a date certain as required by 335-13-15-.08(1)(i)21.

(j) Retrofit criteria. The owner or operator of a CCR unit subject to this chapter must place the following information on the owner or operator's CCR website:

1. The written retrofit plan, and any amendment of the plan, specified under 335-13-15-.08(1)(j)1.

2. The notification of intent to comply with the alternative retrofit requirements as required by 335-13-15-.08(1)(j)2.

3. The annual progress reports under the alternative retrofit requirements as required by 335-13-15-.08(1)(j)3.

4. The demonstration(s) for a time extension for completing retrofit activities specified under 335-13-15-.08(1)(j)4.

5. The notification of intent to retrofit a CCR unit specified under 335-13-15-.08(1)(j)5.

6. The notification of completion of retrofit activities specified under 335-13-15-.08(1)(j)6.

Author: S. Scott Story, Heather M. Jones

Statutory Authority: Code of Alabama 1975, §§ 22-27-3 and 22-27-7

History: Filed: April 24, 2018; Effective: June 8, 2018. **Amended:** Filed: December 31, 2020; Effective: February 15, 2021; **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

335-13-15-.09 [Reserved] Permit Application. ~~All solid waste management of CCR generated from the combustion of coal at electrical utilities and independent power producers shall take place in a CCR unit permitted by the Department. ADEM Admin. Code 335-13-5 outlines the procedures for obtaining a Solid Waste Disposal Permit for new and existing CCR Landfills, including lateral expansions of such units. The following section establishes the minimum requirements and procedures for obtaining a permit for new and existing surface impoundments, including any lateral expansions of such units. New and existing CCR surface impoundments shall obtain permits for construction, operation, closure and/or post-closure in accordance with the following:~~

~~(1) Application Requirements.~~

~~(a) Existing CCR Surface Impoundments. Except as provided in 335-13-15-.09(1)(c), for existing CCR surface impoundments, the owner or operator shall submit the following in order to request a permit:~~

~~1. A completed form designated by the Department.~~

~~2. Boundary plat and legal property description prepared, signed, and sealed by a land surveyor of the proposed boundary of the facility and disposal area of the CCR unit.~~

~~3. Technical data and reports documenting compliance with the following location requirements:~~

~~(i) Five foot separation of the base of the CCR unit and the uppermost aquifer in compliance with 335-13-15-.03(1).~~

~~(ii) Wetland and endangered species requirements under 335-13-15-.03(2).~~

~~(iii) Fault area requirements under 335-13-15-.03(3).~~

~~(iv) Seismic impact zones requirements under 335-13-15-.03(4).~~

~~(v) Unstable area requirements under 335-13-15-.03(5)~~

~~4. Detailed presentation of geological and hydrogeological units within the disposal site, with typical sections of disposal method and plan and profile sheets on all areas or trenches.~~

~~5. Technical report of the determination of the liner design and type as required by 335-13-15-.04(2).~~

~~6. Technical report for the hazardous potential classification as outlined in 335-13-15-.04(4)(a)2. and the Emergency Action Plan (EAP), if necessary, developed under 335-13-15-.04(4)(a)3.~~

~~7. For existing CCR surface impoundments that have a height of five feet or more and a storage volume of 20 acre feet or more, or an existing surface impoundment with a height of 20 feet or more, the application shall include the following:~~

- ~~(i) All the information required by 335-13-15-.04(4)(c)1.(i) through (xii).~~
- ~~(ii) Results of the structural stability assessment as required by 335-13-15-.04(4)(d).~~
- ~~(iii) Results of the safety factor assessment as required by 335-13-15-.04(4)(e).~~

~~8. Sufficient control points on site to provide for accurate horizontal and vertical control for facility construction, operation and closure and post closure.~~

~~9. Topographical maps at contour intervals of not more than five feet for the existing ground surface elevation, initial disposal area elevation, and final disposal area elevation. The maps shall also show buffer zones.~~

~~10. Quality assurance/quality control (QA/QC) plan for all components of the final cover system.~~

~~11. An operation plan that includes at a minimum:~~

~~(i) A CCR fugitive dust control plan developed in accordance with 335-13-15-.05(1).~~

~~(ii) An inflow design flood control system developed in accordance with 335-13-15-.05(3).~~

~~(iii) A detailed description of the groundwater monitoring and analysis program developed in accordance with 335-13-15-.06.~~

~~(iii) Procedures for compliance with recordkeeping and notification as required under 335-13-15-.08.~~

~~(iv) Procedures for updating all plans and assessments periodically as required by this chapter.~~

~~12. The written closure and post closure plan developed in accordance with 335-13-15-.07.~~

~~13. Any additional information that may be required by the Department.~~

~~14. The name and mailing address of all property owners whose property is~~

adjacent to the CCR surface impoundment.

~~15. Plans, specifications, operational procedures, letters of final construction certification and other technical data required as part of the application, except as provided in 335-13-15-.09(1)(a)2. and 14., shall be certified by a professional engineer. The seal or signature and registration number of the design engineer shall be affixed to the plans, specifications and reports.~~

~~(b) New CCR surface impoundments and any lateral expansion of a CCR surface impoundment. For new CCR surface impoundments and any lateral expansion of a CCR surface impoundment, the owner or operator shall submit the following in order to request a permit:~~

~~1. Except for the requirements of 335-13-15-.09(1)(a)5., 6., and 7., the requirements for an existing CCR surface impoundment in 335-13-15-.09(1)(a).~~

~~2. Technical report for the hazardous potential classification as outlined in 335-13-15-.04(5)(a)2. and the Emergency Action Plan (EAP), if necessary, under 335-13-15-.04(5)(a)3.~~

~~3. For new CCR surface impoundments that has a height of five feet or more and a storage volume of 20 acre feet or more, or a surface impoundment with a height of 20 feet or more, the application shall include the following:~~

~~(i) All the information contained in 335-13-15-.04(5)(c)1.(i) through (xii).~~

~~(ii) Structural stability assessment as required by 335-13-15-.04(5)(d).~~

~~(iii) Safety factor assessment as required by 335-13-15-.04(5)(e).~~

~~4. Design for the liner and leachate collection and removal system as required by 335-13-15-.04(3).~~

~~5. Quality assurance/quality control (QA/QC) plan for all components of the liner and leachate collection system.~~

~~6. Plans, specifications, operational procedures, letters of final construction certification and other technical data required as part of the application, except as provided in 335-13-15-.09(1)(a)2. and 14., shall be certified by a professional engineer. The seal or signature and registration number of the design engineer shall be affixed to the plans, specifications and reports.~~

~~(c) For existing CCR surface impoundments that have initiated closure or are otherwise subject to the closure requirements of 335-13-15-.07(2), the owner or operator shall submit all the information as required for an existing CCR surface impoundment in 335-13-15-.09(1)(a), except for the requirements of 335-13-15-.09(1)(a)3., 4. and 5., to request a closure or post-closure permit or a permit for such~~

operations as may be authorized by 335-13-15-.07(4).

~~(2) — In addition to the requirements listed in 335-13-15-.09(1), the permit application shall also include statements signed by a professional engineer and a representative of the facility owner/operator certifying that the information being submitted is accurate and correct. The submittal of false or inaccurate information shall result in the permit application being suspended or denied.~~

~~(3) — Permit Duration. CCR surface impoundment permits obtained in compliance with this chapter shall be valid for the design life of the facility or as otherwise determined by the Department, but no longer than a period of ten years. Permits, however, are subject to revocation under 335-13-15-.12.~~

~~(4) — Filing Deadline. Requests for an initial permit for an existing surface impoundment shall be filed with the Department within 180 days after the effective date of these rules. Requests for extension, renewal or a new permit for any CCR surface impoundment shall be filed with the Department by the operating agency at least 180 days prior to the expiration date for existing permits or proposed construction date for new facilities.~~

~~(5) — Modifications. Prior to any change listed in 335-13-15-.13(1) and (2), the permittee shall request a modification of the permit as described in 335-13-15-.13(3). A modification request described in 335-13-15-.13(1) and (2) must be filed with the Department at least 90 days prior to the anticipated change and shall receive approval from the Department prior to the implementation of the proposed change.~~

~~(6) — Effect of non-compliance.~~

~~(a) — As determined by the Director, substantial non-compliance with Department regulations or permits at any facility owned or operated by the applicant, including any facility for which the pending permit application is requested, will be grounds for denial of the application, or alternatively, for suspension of further consideration of the application until such non-compliance is corrected.~~

~~(b) — In addition to the foregoing, the Director may deny a permit application if:~~

~~1. — The Director determines that a permit could not be issued that would result in compliance with applicable solid waste standards; or~~

~~2. — The applicant could not comply with the permit as issued.~~

Author: Eric L. Sanderson; S. Scott Story, Heather M. Jones.

Statutory Authority: Code of Alabama 1975, §§ 22-27-3, 22-27-7, and 22-27-12

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February 15, 2021.

|

335-13-15-.10 Public Notice.[Reserved]

~~(1) — Notice Requirements.~~

~~(a) — The Department shall provide notice and an opportunity for a public hearing prior to issuing an initial CCR surface impoundment permit, renewing a CCR surface impoundment permit, or making any change listed in 335-13-15-.13(1) to the facility permit.~~

~~(b) — The following procedures shall be observed:~~

~~1. — The Department shall notify interested and potentially interested persons of the proposed CCR surface impoundment permit by publishing a notice in a newspaper of general circulation in the area.~~

~~(i) — The notice shall be given not less than 35 days prior to the proposed issuance of a permit.~~

~~(ii) — The notice shall contain the specific type and nature of the CCR surface impoundment, the type of waste to be disposed, the person or agency requesting the permit, and the descriptive location of the CCR surface impoundment, address and telephone number of the Department, and that interested persons may request a public hearing on the proposed CCR surface impoundment.~~

~~2. — Landowners adjacent to a proposed CCR surface impoundment shall receive a copy of the public notice.~~

~~(2) — Departmental Action. The Department shall take one of the following actions after the public notice:~~

~~(a) — Deny the permit, stating in writing the reasons for denial and inform the person requesting the permit of appeal procedures in 335-13-1-.07;~~

~~(b) — Issue the permit if the application complies with this Division; or~~

~~(c) — Require additional information, elements of design for the facility, and specify procedures for inclusion into the permit prior to issuance of the permit.~~

Author: S. Scott Story

Statutory Authority: ~~Code of Alabama 1975, §§ 22-22A-5, 22-27-3 and 22-27-7~~

History: Filed: April 24, 2018; Effective: June 8, 2018.

335-13-15-.11 ~~[Reserved]~~Public Hearing.

~~(1) — Authorization. The Department shall authorize a public hearing upon receipt of a significant number of technical requests as provided in 335-13-15-.11(2).~~

~~(2) — Procedures.~~

~~(a) — Requests for public hearings shall be submitted in writing to the Department by interested persons.~~

~~1. — Frivolous or nontechnical requests shall be denied by the Department.~~

~~2. — Requests for public hearings must be submitted within 35 days after the publication of the public notice and must contain the following:~~

~~(i) — The name, address and telephone number of the person requesting the hearing.~~

~~(ii) — A brief statement of the person's interest and the information the person wishes to submit.~~

~~(iii) — The person's signature, if an individual, or the signature of a responsible officer of an organization or legal entity.~~

~~(b) — When a hearing has been authorized, the Department shall appoint a hearing officer to conduct the hearing and shall establish a time, date, and location for the hearing. The location for the hearing shall comply with the requirements of the Americans with Disabilities Act.~~

~~(c) — The Department shall give notice of the public hearing in the manner set forth in 335-13-15-.10(1), and also to the persons requesting the hearing in 335-13-15-.11(2). The notice given not less than 35 days prior to the time of the public hearing shall include:~~

~~1. — A summary of the proposed permit.~~

~~2. — The place, time, and date of the hearing.~~

~~3. — The name, address and telephone number of an office at which interested persons may receive further information.~~

~~(3) — Departmental Action. The Department shall take one of the following actions after the hearing:~~

~~(a) — Deny the permit, stating in writing the reasons for denial and inform the person requesting the permit of appeal procedures in 335-13-1-.07;~~

~~(b) — Issue the permit if the application complies with this Division; or~~

~~(c) — Require additional information, elements of design for the facility, and specify procedures for inclusion into the permit prior to issuance of the permit.~~

Author: S. Scott Story

Statutory Authority: ~~Code of Alabama 1975, §§ 22-22A-5, 22-27-3 and 22-27-7~~

History: Filed: April 24, 2018; Effective: June 8, 2018.

335-13-15-.12 [Reserved] ~~Permit Denial, Suspension or Revocation.~~

~~(1) Conditions. The Department may deny, suspend or revoke any permit if:~~

~~(a) The permittee is found to be in violation of any of the permit conditions,~~

~~(b) The permittee fails to perform the permitted activity in accordance with the approved operational narrative or engineering drawings,~~

~~(c) The permittee fails to seek a modification of the permit as required by the rules,~~

~~(d) An active site stops receiving waste for more than two years, or~~

~~(e) The design operations creates a nuisance or is inconsistent with the Act or this Division.~~

~~(2) Written Notice. In the event of denial, suspension or revocation of a permit, the Department shall serve written notice of such action on the permittee and shall set forth in such notice the reason for such action.~~

~~(3) Closure. Upon revocation or suspension of the permit, or denial of the renewal of the permit, the permittee shall meet the closure requirements found in 335-13-15-.07.~~

Author: Eric L. Sanderson

Statutory Authority: ~~Code of Alabama 1975, §§ 22-22A-5, 22-27-3, 22-27-7, and 22-27-12~~

History: Filed: April 24, 2018; Effective: June 8, 2018.

335-13-15-.13 [Reserved] Permit Modification. ~~The Department may modify any permit after receiving a satisfactory application that is found in compliance with ADEM rules and regulations.~~

~~(1) — Major Modifications.~~

~~(a) — Permit modification shall be requested utilizing forms designated by the Department when the permittee proposes to modify its operation in any of the following ways:~~

~~1. — There is any change in the permitted service area.~~

~~2. — Addition of acreage to the facility boundary.~~

~~3. — Addition of disposal acreage inside the permitted perimeter where design plans have not been previously submitted.~~

~~4. — Any design change in the liner and/or leachate collection system.~~

~~(b) — Modifications required under this paragraph are subject to the provisions of rules 335 13 15 .10 and 335 13 15 .11, which require a public notice and may require a public hearing.~~

~~(2) — Minor Modifications.~~

~~(a) — A permit modification shall be required, utilizing forms designated by the Department, when the permittee proposes to modify its operations or design in any of the following ways:~~

~~1. — Addition of a waste stream.~~

~~2. — Any change to the CCR surface impoundment design, groundwater monitoring system, or operating procedure in which the change is not listed in 335-13-15-.13(1).~~

~~3. — An increase in the average daily volume of waste specified by the permit for a CCR surface impoundment is proposed to be exceeded, or is exceeded for two or more consecutive reporting quarters, by 20 percent, or 100 tons/day, whichever is less.~~

~~(i) — The average daily volume of waste received at a CCR surface impoundment shall be calculated by dividing the total month's receipts by the total number of days in the reporting month.~~

~~(ii) — Volumes received shall be reported to the Department in a format specified by the Department.~~

~~(b) — Modifications required under this paragraph are not subject to the provisions of rules 335-13-15-.10 and 335-13-15-.11, and do not require public notice or public hearing.~~

~~(3) — Procedures. The Permittee shall request a permit modification in accordance with the following procedures:~~

~~(a) — Submit a request for modification to the Department.~~

~~(b) — Identify each and every part of the permit or plans to be modified.~~

~~(c) — Submit revised plans and narratives as required by the Department.~~

~~(d) — Receive approval from the Department prior to implementing the modification.~~

Author: S. Scott Story

Statutory Authority: ~~Code of Alabama 1975, §§ 22-22A-5, 22-27-3, 22-27-7, and 22-27-12~~

History: Filed: April 24, 2018; Effective: June 8, 2018.

335-13-15-.14 ~~**[Reserved] Transfer of Permit.**~~ Permits are not transferable except as follows:

~~(1) — A notification must be submitted to and approved by the Department prior to any proposed transfer from one person or company to another or name change of any permitted facility.~~

~~(a) — The notification must be submitted to the Department at least 30 days prior to the proposed transfer.~~

~~(b) — Information regarding the transfer must be submitted on form(s) designated by the Department.~~

~~(2) — [Reserved]~~

Author: Eric L. Sanderson

Statutory Authority: ~~Code of Alabama 1975, §§ 22-22A-5, 22-27-3 and 22-27-7~~

History: Filed: April 24, 2018; Effective: June 8, 2018.

335-13-15-.15 Variances. The Department may grant individual variances only from specific provisions of this chapter that are in addition to or more stringent than the federal regulations. The individual variances must be granted based upon the procedures of 335-13-8-.02~~1~~1 through 335-13-8-.05 whenever it is found by the Department, upon presentation of adequate proof, that non-compliance with one or more of these provisions will not threaten the public health or unreasonably create environmental pollution.

Author: S. Scott Story.

Statutory Authority: Code of Alabama 1975, §§ 22-27-3 and 22-27-7

History: Filed: April 24, 2018; Effective: June 8, 2018; **Amended:** Filed: October 12, 2021; Effective: December 13, 2021.

Attachment 7

BEFORE THE
ENVIRONMENTAL MANAGEMENT COMMISSION
OF THE
ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

In the Matter of:)	
)	
Lee County Commission,)	
Petitioner,)	
)	
vs.)	EMC Docket No. 21-05
)	NPDES Permit No. AL0084191
Alabama Department of)	
Environmental Management,)	
Respondent,)	
)	
Creekwood Resources, LLC,)	
Intervenor.)	

ORDER

Before the Commission in the above matter is the Request for Oral Argument at the hearing on the Motion for Stay submitted in the Petitioner's Request for Hearing and Motion for Stay and having considered the same and having considered ADEM Admin. Code Rule 335-2-1-.23(4), pertaining to oral argument on an application for a stay, the Commission hereby ORDERS, ADJUDGES, and DECREES as follows:

1. That the Petitioner's Request for Oral Argument is hereby granted; and
2. That this action has been taken and this Order shall be deemed rendered effective as of the date shown below; and
3. That a copy of the Order shall be forthwith served upon each of the parties hereto either personally, or by certified mail.

Environmental Management Commission Order
Page 2

ISSUED this 8th day of October 2021.


APPROVED:

 _____ Commissioner	 _____ Commissioner
 _____ Commissioner	 _____ Commissioner
 _____ Commissioner	_____ Commissioner
 _____ Commissioner	

DISAPPROVED:

_____ Commissioner	_____ Commissioner
_____ Commissioner	

This is to certify that this Order is a true and accurate account of the actions taken by the Environmental Management Commission on this 8th day of October 2021.



Chair
Environmental Management Commission
Certified this 8th day of October 2021

Attachment 8

BEFORE THE
ENVIRONMENTAL MANAGEMENT COMMISSION
OF THE
ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

In the Matter of:)	
)	
Lee County Commission,)	
Petitioner,)	
vs.)	EMC Docket No. 21-05
)	NPDES Permit No. AL0084191
Alabama Department of)	
Environmental Management,)	
Respondent,)	
)	
Creekwood Resources, LLC,)	
Intervenor.)	

ORDER

Before the Commission in the above matter are the Motion for Stay in the Petitioner’s Request for Hearing and Motion for Stay; the Petitioner’s Brief in Support of Motion for Stay; ADEM’s Objection to Motion for Stay; and the Intervenor’s Response in Opposition to Motion to Stay and having considered the same and the factors enumerated in ADEM Admin. Code Rule 335-2-1-.23(5) that the party requesting a stay must show before a stay of a contested action may be granted, the Commission hereby ORDERS, ADJUDGES, and DECREES as follows:

1. That the Petitioner’s Motion for Stay is hereby denied; and
2. That this action has been taken and this Order shall be deemed rendered effective as of the date shown below; and
3. That a copy of the Order shall be forthwith served upon each of the parties hereto either personally, or by certified mail.

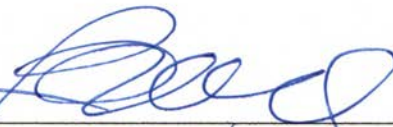
Environmental Management Commission Order
Page 2

ISSUED this 8th day of October 2021.

APPROVED:



Commissioner



Commissioner



Commissioner

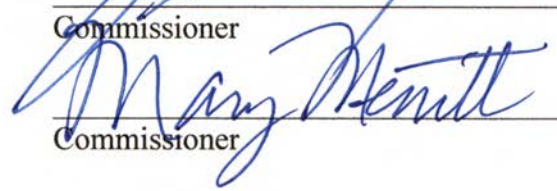


Commissioner



Commissioner

Commissioner



Commissioner

DISAPPROVED:

Commissioner

Commissioner

Commissioner

This is to certify that this Order is a true and accurate account of the actions taken by the Environmental Management Commission on this 8th day of October 2021.



Chair

Environmental Management Commission
Certified this 8th day of October 2021

Attachment 9

BEFORE THE
ENVIRONMENTAL MANAGEMENT COMMISSION
OF THE
ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

BLACK WARRIOR RIVERKEEPER,)
INC.,)
)
PETITIONERS,)
)
and)
)
ALABAMA RIVERS ALLIANCE,)
)
INTERVENOR,)
)
v.)
)
ALABAMA DEPARTMENT OF)
ENVIRONMENTAL MANAGEMENT,)
)
RESPONDENT.)
_____)

EMC DOCKET NO. 20-02

ADEM Admin. Code ch. § 335-13-16
Requirements for Beneficial Use of
By-Product Materials for the Purpose
of Land Application

ORDER

Before the Commission is the recommendation of the Hearing Officer in the above matter. Also before the Commission are Petitioner's and Intervenor's Objections to the Report of the Hearing Officer referencing their previous submissions, and the Department's Reply to the Objections and Proposed Order and Alternate Findings of Fact and Conclusions of Law. Having considered the Report of the Hearing Officer, the Objections, and Reply, along with all the submissions that have been presented to the Commission in this matter, the Commission hereby ORDERS, ADJUDGES, and DECREES as follows:

1. That the Report of the Hearing Officer is not adopted;

2. That the alternate Findings of Fact and Conclusions of Law proposed by the Department are expressly adopted by the Commission as the final decision of the Commission in this matter;

3. That the alternate Findings of Fact and Conclusions of Law proposed by the Petitioners and Intervenors are rejected;

4. That the ADEM administrative action adopting ADEM Admin. Code ch. 335-13-16 on February 14, 2020, complies with applicable law, statutes, and regulations.

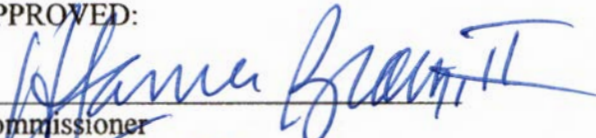
5. That the Commission approves the issuance of ADEM Admin. Code ch. 335-13-16;


6. That this action has been taken and this Order shall be deemed rendered final and effective as of the date shown below; and

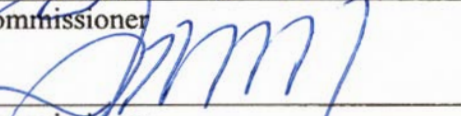
7. That a copy of this Order, along with a copy of the Findings of Fact, Conclusions of Law and Final Decision of the Commission, attached hereto and made a part hereof, shall be forthwith served upon each of the Parties hereto either personally, or by Certified Mail, Return Receipt Requested.


ISSUED this the 8th day of October, 2021.


APPROVED:

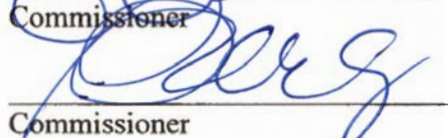

Commissioner


Commissioner


Commissioner


Commissioner


Commissioner


Commissioner

Commissioner

This is to certify that this Order is a true and accurate account of the actions taken by the Environmental Management Commission on this 8th day of October 2021.


Chair

Environmental Management Commission
Certified this 8th day of October 2021

DISAPPROVED:

Commissioner

Commissioner

Commissioner

ABSTAINED:

Commissioner

BEFORE THE
 ENVIRONMENTAL MANAGEMENT COMMISSION
 OF THE
 ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

BLACK WARRIOR RIVERKEEPER,)	
INC.,)	
)	
PETITIONERS,)	
)	
and)	
)	
ALABAMA RIVERS ALLIANCE,)	
)	
INTERVENOR,)	
)	
v.)	
)	
ALABAMA DEPARTMENT OF)	
ENVIRONMENTAL MANAGEMENT,)	
)	
RESPONDENT.)	
)	

EMC DOCKET NO. 20-02

ADEM Admin. Code ch. § 335-13-16
 Requirements for Beneficial Use of
 By-Product Materials for the Purpose
 of Land Application

**FINDINGS OF FACT, CONCLUSIONS OF LAW
 AND RECOMMENDATION OF THE HEARING OFFICER**

Introduction

In the challenged rules, the Alabama Department of Environmental Management (ADEM) sought to directly regulate the existing practice of applying by-product materials to the land. Dissatisfied, Petitioners requested a hearing before the Environmental Management Commission to contest the ADEM’s adoption of these rules. Alleging that ADEM exceeded its authority in adopting these rules, Petitioners and Intervenors (Petitioners) request that the Commission modify them.

Petitioners fault these Rules for lacking specific requirements for characterizing by-product materials, technical standards or best management practices. As a result, they say, the Rules allow illegal dumping of solid waste in violation of state and federal law. They also fault the variance provisions as lacking sufficient standards and urge that the buffer zone in the rules should apply to groundwater also.

Petitioners' requested relief- the modifying of rules – is inconsistent with their arguments. If the rules (or a part of them) are invalid and void for want of statutory authority, they cannot be modified; only disapproved. And if there is no argument that certain rules are invalid, there is no reason to modify them. Here, then the Commission may only strike or approve the challenged rules.

Above all, Petitioners present no reason to strike or modify the rules. Using a material beneficially is not discarding it, so the rules allowing land application of materials for beneficial use, does not, by definition, allow the dumping of solid waste. Finally, as explained below, the rules are not objectively unreasonable. They are due to be approved.

Procedural Background and Posture

On February 14, 2020, ADEM adopted Ala. Admin. Code ch. § 335-13-16, Requirements for Beneficial Use of By-Product Materials for the Purpose of Land Application, On March 30, 2020, Black Warrior Riverkeeper, Inc., requested a hearing before the Environmental Management Commission to challenge ADEM's authority to adopt these adopted rules and ask that the Commission modify them. Afterward, the undersigned granted Alabama River Alliance's Motion to Intervene as a Petitioner.

The Environmental Management Act limits the Commission's review to defined "administrative actions." Ala. Code § 22-22A-7(c). These include the issuance, modification or repeal of any rule or regulation by the department. Ala. Code § 22-22A-3(8).

ADEM Admin. Code r. 335-2-1-.14 provides that this hearing shall be conducted as a *de novo* proceeding. Under ADEM Admin. Code r. 335-2-1-.27(5), the burden shall rest with the petitioner to show by a preponderance of the evidence that the Department's action should be modified or disapproved.

By agreement, the parties are submitting the case on deposition testimony, exhibits, the parties' briefs and proposed Hearing Officer Reports. Following are the undersigned's Findings of Fact and Conclusions of Law.

Finding of Facts

1. Petitioners are organizations whose members have an interest in recreating in or near the Black Warrior River.
2. The challenged rules allow the land application of by-product materials, which, without appropriate controls, could threaten to make these rivers less suitable for recreation.
3. Land application of materials for beneficial use existed before the Commission adopted the challenged rules. Farmers wanted this material for cheap fertilizer and generators avoided the cost of landfilling these materials. [Cobb Depo. p.44:6] And, these materials, usually semi-solid or liquid [Cobb Depo. p.53:18], could cause slope failures at landfills. [Cobb Depo. ps.99:19 -100:4]
4. These rules were ADEM's first direct regulation of land application of by-product materials for beneficial use.

5. Before, direct regulation of land application of by-product materials was only from the federal government and that only for the land application of defined biosolids. Nothing directly regulated the beneficial use of other industrial byproducts.

6. ADEM sought to quickly fill the gap in regulatory coverage of these materials, address odors and spills, learn the current universe of land application, and provide a program to handle complaints and enforce the new standards. [Story Depo. ps. 45:9 through 47:4, 48:22] In this program, ADEM aimed to divert materials of nutrient value from landfills. At the same time, ADEM wanted to prevent disposal of discarded materials or waste under the guise of beneficial use.

7. ADEM studied the land application and beneficial use rules of other States, the EPA biosolids program as well Alabama's program for Concentrated Animal Feeding Operations. [Story Depo. ps. 44:12-22]

8. In providing for a program to regulate land application for beneficial use, ADEM was dealing with limited resources. [Story Depo. p.37:14]

9. ADEM received public comment and held a public hearing on its first version of these proposed rules. After ADEM revised the first version, in response to comments, it received public comment on the revised version and held yet another public hearing. [Story Depo. p.151:1-8 and Cobb Depo. ps.105:21 through 106:1] The Environmental Management Commission then adopted the present version of the rules titled "Requirements for Beneficial Use of By-Products Materials For the Purpose of Land Application," ADEM Admin. Code ch. 335-13-16.

10. In these rules, ADEM described the by-product materials that one could apply to the land, and set out requirements for generators, distributors and suppliers of by-product materials over a threshold amount. [Story Depo. p.58:67]

11. These rules provide that the land application of by-product materials must function as a “suitable replacement for a raw material or other feedstock.” And the land application must “provide[] a benefit comparable to the material it is proposed to replace.” ADEM Admin. Code r. 335-13-16-.03 (2) (a).

12. “The by-product material proposed for beneficial use must be adequately characterized to confirm that the proposed use is adequately protective of the human health and the environment.” ADEM Admin. Code r. 335-13-16-.03 (1) (b). Further, the by-product [must] possess[] physical and/or chemical properties which make the material suitable for the intended agronomic rate as defined in [the rules.]” *Id.*

13. Most importantly, the rules direct that “[t]he beneficial use must not serve the purpose of discarding or disposing of the by-product, as determined by the Department. ADEM Admin. Code r. 335-13-16-.03(2) (b).

13. The rules also required an Operations Plan and Nutrient Management Plan for sites where by-product materials are applied. Class A biosolids (governed by 40 CFR § 503.01) and industrial byproducts approved on a case-by-case basis were exempt from the requirement for a Nutrient Management Plan. ADEM Admin. Code r. 335-13-16-.03(2) (c).

14. The rules further required generators and distributors to notify ADEM of their handling and use of by-product materials in the past year as well as future use. ADEM Admin. Code r. 335-13-16-.04(1).

15. For generators, distributors, and suppliers that handle or use of by-product materials, ADEM required an application for registration. ADEM Admin. Code r. 335-13-16-.04(2) (a) & (b).

16. For distributors and suppliers, the application for registration required a Nutrient Management Plan and Operations Plan for each property where by-product materials are land applied. ADEM Admin. Code r. 335-13-16-.04(2) (b)2.

17. ADEM requires the Nutrient Management Plan, which is required for each property, to contain information describing the manner of each application and the needs for the specific property. *See* ADEM Admin. Code r. 335-13-16-.04 (2) (b)2.(i) (requiring Property description, brief description of the operation, crop and soil information, yield goals information, recommended nitrogen application rates for crops grown on each application zone, timing and method of applications and best management practices to protect human health and the environment.)

18. These by-product materials vary, as do the needs of the sites where these materials are applied. [Cobb Depo. p.54:22 -55:7] And, the needs of the sites, in turn, depend on the needs of the soil and the crops. [Cobb Depo. ps.46:4-12]

19. For some industrial products, a Nutrient Management Plan would serve no purpose. Those products contain no nutrients, but are land applied as a soil amendment. An example is gypsum, (a byproduct of flue gas desulfurization) applied to adjust the acidity of the soil. (ADEM Depo p.118-119)

20. ADEM required that the Operations Plan include best management practices for minimizing vectors (disease causing organisms), birds, odors, fugitive dust, spills and time in transit. ADEM Admin. Code r. 335-13-16-.04(2) (b)(3).

21. Under these rules, the placement, dumping, or other use of a byproduct material in a manner inconsistent with the Registration may be considered an unauthorized dump. ADEM Admin. Code r. 335-13-16-.04(3) (c).

22. And, the placement, dumping or other use of a by-product material in a manner inconsistent with the requirements of this chapter may be considered an unauthorized dump. ADEM Admin. Code r. 335-13-16-.04(4) (a).
23. Under the rules, ADEM may limit the agronomic rates – the rates of application – when necessary to protect human health and the environment. ADEM Admin. Code r. 335-13-16-.06(4).
24. ADEM further required land application to be at least 500 feet from any inhabited building, with storage and land application to be a minimum of 100 feet from the property boundary. And, ADEM provided that it could require larger buffer zones at its discretion. ADEM Admin. Code r. 335-13-16-.05. These buffers zones are designed to prevent runoff, and also help minimize odors. [Cobb Depo. ps.129:17 through -130:8]
25. ADEM expects that land application in accord with a site’s Nutrient Management Plan and the required buffer zones will minimize runoff. [Story Depo. p.156:21 through 157:9, Cobb Depo. p 129:20]
26. The rules also provide for variances. These are limited to provisions that are in addition to, or more stringent than applicable federal regulations. They are granted whenever it is found on adequate proof, that non-compliance with the rule will not threaten the public health or unreasonably create environmental pollution. ADEM Admin. Code r. 335-13-16-.07.
27. Applicators remain subject to water pollution statutes and rules. [Story Depo. p.155:13-16] Indeed, the challenged rules provide that “{g}enerators, distributors, and end users of beneficially used by-product materials shall comply with this chapter and any other applicable state and federal rules and regulations.” ADEM Admin. Code r. 335-13-16-.03(2)(e).

Conclusions of Law

A. The Commission has jurisdiction to hear Petitioners' contest of Ala. Admin. Code r. § 335-13-16, Requirements for Beneficial Use of By-Product Materials for the Purpose of Land Application.

1. Petitioners timely filed their Request for Hearing as required under ADEM Admin. Code r. 335-2-1-.04.

2. Petitioners are aggrieved parties and may challenge ADEM's adoption of the Beneficial Use Rules. Ala. Code § 22-22A-7(c). Petitioners have shown a threatened injury, which is enough to support standing. ADEM Admin. Code r. 335-2-1-.02(b).

B. The Commission may not modify the challenged rules in this hearing. Petitioner argues that the challenged rules – or at least the bulk of them – invalid and void. If so, there is nothing to modify. For any rules that Petitioners fail to show legal error, there is no reason to modify those rules. This is because Petitioners must prove the Department's position incorrect. *Thistlethwaite v. ADEM*, EMC Docket No. 06-08, *2-3.

C. The Petitioners fail to prove legal error in the Department's adoption of the Beneficial Use rules.

D. The Beneficial Rules are within the Department's statutory authority.

1. The Solid Wastes Recyclable Materials and Management Act (SWRMMA) names ADEM as the agency with primary regulatory authority over the management of solid waste. Ala. Code § 22-27-9(a). Further, SWRMMA provides that the Department may adopt rules to implement SWRMMA and "may do any and all other actions non inconsistent with [SWRMMA] or other state law which it deems necessary and proper for the effective enforcement of [SWRMMA] and the rules promulgated pursuant to it." Ala. Code § 22-27-12(11). The

Department adopted the Beneficial Use Rules, in part, to prevent land application that had no purpose other than the disposal of discarded materials, that is, solid waste.

2. These rules do not allow an “unauthorized dump” or an “open dump” prohibited by state or federal law. Ala. Code § 22-27-10(b); 42 U.S.C. § 6944 (b). By definition, these terms require the presence of solid waste, essentially defined as discarded materials. Ala. Code §22-27-2 (38), (34)¹; 42 U.S.C. § 6903 (14), (27)². This is the opposite of materials used for a beneficial purpose. Indeed, the Beneficial Use rules provide that “[t]he beneficial use must not serve the purpose of discarding or disposing of the by-product, as determined by the Department.” ADEM Admin. Code r. 335-13-16-.03(2) (b) [emphasis added]. The failure of some land appliers to follow the rules or their registration does not mean that the rules themselves have allowed an illegal “dump”.

E. The challenged rules are objectively reasonable. *Sierra Club et al. v. ADEM*, EMC Docket 91-29, 1992 WL 123372 *8 (Ala. Dept. Env. Mgmt.) (requiring that the Petitioners bear the burden of proof that the challenged rule was objectively unreasonable.)

1. In general, ADEM sought to quickly fill the gap in regulatory coverage of these materials as well as learn the current universe of land application before it imposed further and stricter requirements. ADEM, then, was not concerned with setting standards for biosolids, as those are regulated under 40 CFR § 503.01.

2. For other by-product materials, ADEM relied on a site-specific Nutrient Management Plan, rather than blanket standards to ensure appropriate land application. This is

¹ “Unauthorized Dump” §22-27-2 (38), is “any collection of solid wastes . . . dumped or placed on any . . . property.” “Solid Waste,” Ala. Code §22-27-2 (34), includes “any other discarded materials.”

² “Open Dump” means “site where solid waste is disposed . . .” 42 USC § 6903 (14). “Solid Waste” includes “and other discarded material.”

because different soils and different crops have different needs. ADEM did allow case-by-case exemptions to these requirements, but, like the NMP requirement itself, this would be tailored to a specific site.

3. ADEM limits variances to requirements that go beyond federal requirements and where non-compliance with the rule will not threaten the public health or unreasonably create environmental pollution.

4. The Rules do not conflict with the Alabama Water Pollution Control Act. Simply because there is a buffer zone for surface waters of the State, but not groundwater, does not mean that the Rules allow an unpermitted discharge to groundwater. Applicators of by-product materials remain subject to the Alabama Water Pollution Control Act and its implementing rules.

~~Recommendation~~

~~Based on the record including the deposition testimony, exhibits, briefs, arguments and submissions, the undersigned Hearing Officer recommends to the Alabama Environmental Management Commission that it enter an order as follows: That the ADEM administrative action adopting ADEM Admin. Code ch. 335-13-16 on February 14, 2020, complies with applicable law and is APPROVED.~~
