

PART I Authorization to Operate

- A. The permittee is authorized to operate Class V Injection Well(s), at the facility described in the permit application and in the cover page of this permit, in accordance with the provisions set forth in this permit
- B. This permit and the authorization to inject shall remain in effect until the expiration date stated on the cover page of this permit. If the permittee desires to continue injection past the expiration date of this permit, the permittee shall request a permit reissuance at least 180 days prior to expiration of this permit.

PART II Construction Requirements

A. Injection Well Requirements

The permittee shall inject only the hydrogen peroxide solution, ferrous sulfate solution, microbes and nutrients, and treated extracted groundwater as described in the permit application.

B. Modifications

Approval of the Alabama Department of Environmental Management (ADEM) shall be obtained prior to modification of any injection well activity. Modification shall mean any action that will change the nature of the injection activity, the methods of monitoring injection, or will result in injection of a fluid not specifically authorized by this permit.

C. Operation

The injection wells shall function properly. Should the wells not function properly, the permittee shall take corrective action, to include cessation of injection, as required by ADEM.

PART III Monitoring and Operating Requirements

A. Injection Fluid

- 1. Prior to injection of extracted groundwater, the permittee shall treat the groundwater by passing through a wastewater treatment system. The treatment system shall be adequate to meet the discharge limitations contained in Appendix A. Prior to injection, the permittee shall monitor the treated groundwater as specified in Appendix A of this permit. Groundwater which does not meet the discharge limitations contained in Appendix A shall not be injected.
- 2. The permittee shall not inject any substance that is defined as hazardous or toxic by Federal or State laws or regulations or any substance not identified in the applications for this permit.

B. Monitoring Wells

- 1. The permittee shall monitor and limit groundwater in accordance with Appendix B. The injection activity shall not result in exceedance of any established MCL in groundwater outside the areas of contamination.

2. The groundwater monitoring regime must be sufficient to detect any adverse effects to groundwater quality due to the injection activity. The Department may change the sampling requirements if the sampling data indicate a need to do so.
3. Monitoring wells shall be sampled for background water quality prior to injection.

PART IV Records, Reports, & Submittals

A. Records

1. The permittee shall retain all records concerning the data used to complete the permit application, the operation of the wells, and the nature and composition of pollutants injected; to include records of the calibration of instruments, meters and gauges, quality control records, and recordings from continuous monitoring instrumentation; until at least three years after the injection activity ends.
2. When requested by ADEM, the permittee shall deliver copies of any of the records maintained in accordance with this permit.

B. Reports

1. The permittee shall submit to ADEM written confirmation of all injections that occur, including the initial injection. The written confirmation shall be submitted no later than thirty (30) days after the injection and shall include the information listed below:
 - a) The date of the injection.
 - b) The amount of hydrogen peroxide solution, ferrous sulfate solution, microbes and nutrients, and treated extracted groundwater injected.
 - c) The location(s) of the injection.
2. The permittee shall report to ADEM any of the following:
 - a) Any planned action which will change the use of the injection wells, will result in injection of a fluid different from that authorized by this permit, will change the method of operations of any injection well, or will change the method of the monitoring of well operations or injected fluids.
 - b) Any planned transfer of ownership of all or part of the permitted facility.
 - c) Any relevant facts of which the permittee becomes aware which should have been submitted in a permit application and any corrections to data previously submitted in a permit application.

3. Other Submittals

Studies, engineering reports, plans and specifications, plugging and abandonment plans, logging reports, and other technical documents submitted to comply with this permit shall

be prepared by or under the supervision of qualified persons defined by the UIC Regulations of the ADEM.

PART V Plugging and Abandonment

- A. The permittee shall perform any abandonment and closure actions that may be required by ADEM to remove a threat to groundwater quality or to the health of persons which is caused by the injection activity.
- B. Upon the end of use for each injection well, the permittee shall plug and abandon each well in a manner which protects each USDW from pollution by surface water and which prevents the movement of any pollutant or formation fluid from one USDW to another or from one formation to another and which isolates the injection zone

PART VI Permit Modification, Revocation, Suspension, and Termination

- A. ADEM may impose emergency additional conditions to this permit when necessary to protect waters of the state from pollution. These conditions may include suspension of the permit to inject and shall remain in effect until the permit is modified, revoked, suspended or terminated in accordance with the UIC Regulations of the ADEM.
- B. Non-emergency permit modification, revocation, suspension, and termination actions shall be accomplished in accordance with ADEM Administrative Code Rule 335-6-8.

PART VII General Provisions

- A. The permittee shall comply with all provisions of the UIC Regulations of the ADEM and shall comply with all provisions of this permit and shall reduce or halt injection if needed to maintain compliance with the permit and regulations.
- B. The permittee shall comply with all applicable Federal and State hazardous waste management regulations.
- C. The permittee shall allow members of the ADEM staff to:
 - 1. Access property and records of the permittee for purposes of inspection.
 - 2. Collect samples of the injected fluids, process and wastewater streams associated with the permitted injection wells.
 - 3. Collect samples from any monitoring wells.
 - 4. Obtain copies of records upon request.
- D. The permittee shall immediately take all reasonable steps to minimize or correct any adverse environmental impact resulting from the operation of the permitted injection wells.
- E. This permit does not convey any property rights of any sort, or any exclusive privilege.
- F. The filing of a request by the permittee for a permit modification, revocation, and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

- G. Any noncompliance with this permit constitutes a violation of the Alabama Water Pollution Control Act and/or the Underground Injection Control Regulations and is grounds for enforcement action such as permit termination, revocation, modification; or denial of a permit renewal application.
- H. Injection into waters of the state, which in this case is groundwater, in accordance with this permit shall not result in the exceedance of any primary or secondary Maximum Contaminant Level (MCL) in groundwater as established by the Environmental Protection Agency. Injection into groundwater, in accordance with this permit shall not result in a violation of a surface water quality standard.
- I. All provisions of ADEM Admin. Code Rule 335-6-8-.12 are incorporated as terms and conditions of this permit by reference

APPENDIX A

Prior to injection, extracted groundwater shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>UNITS</u>	<u>DISCHARGE LIMITS</u>	<u>FREQUENCY</u>	<u>SAMPLE TYPE</u>
Benzene	mg/L	0.005	Batch	Grab
Toluene	mg/L	1	Batch	Grab
Ethyl Benzene	mg/L	0.7	Batch	Grab
Xylenes	mg/L	10	Batch	Grab
MTBE	mg/L	Monitor	Batch	Grab

APPENDIX B

Groundwater monitoring wells MW-12 and MW-14 shall be sampled prior to startup and then quarterly as specified below.

<u>EFFLUENT CHARACTERISTIC</u>	<u>UNITS</u>	<u>DISCHARGE LIMITS</u>	<u>MONITORING REQUIREMENTS</u>	
			FREQUENCY	SAMPLE TYPE
pH	S.U.	6.5-8.5	Quarterly	Grab
Iron	mg/L	Monitor	Quarterly	Grab
Nitrate	mg/L	10	Quarterly	Grab
Sulfate	mg/L	Monitor	Quarterly	Grab

ADEM Permit Rationale

Date: January 31, 2020

Prepared by: Jordan Brummal

Permittee Name: The Spencer Companies, Inc.

Facility Name: Athens Bulk Plant

Location: 722 South Clinton Street

Athens
Limestone County, Alabama
Lat: N 34.791297/W -86.967603
Town 3S, Range 4 W, Section 8

UIC Permit Number ALSI9942011

Draft Permit is: Initial Registration / New Use

Injection Description: injection of hydrogen peroxide solution, ferrous sulfate solution, microbes and nutrients, and treated extracted groundwater to aid in the remediation of groundwater contamination

Discussion: Standard permit drafted.

1. No hazardous injection
2. Sampling point required