



MAJOR SOURCE OPERATING PERMIT

PERMITTEE: NASA – MARSHALL SPACE FLIGHT CENTER

FACILITY NAME: MARSHALL SPACE FLIGHT CENTER

FACILITY/PERMIT NO.: 709-0014

LOCATION: MSFC, ALABAMA

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code 1975, §§22-28-1 to 22-28-23 (2006 Rplc. Vol. and 2007 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code 1975, §§22-22A-1 to 22-22A-15, (2006 Rplc. Vol. and 2007 Cum. Supp.) and rules and regulations adopted thereunder, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

*Pursuant to the **Clean Air Act of 1990**, all conditions of this permit are federally enforceable by EPA, the Alabama Department of Environmental Management, and citizens in general. Those provisions which are not required under the **Clean Air Act of 1990** are considered to be state permit provisions and are not federally enforceable by EPA and citizens in general. Those provisions are contained in separate sections of this permit.*

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GENERAL PERMIT PROVISOS

Federally Enforceable Provisos	Regulations
<p>1. <u>Transfer</u></p> <p>This permit is not transferable, whether by operation of law or otherwise, either from one location to another, from one piece of equipment to another, or from one person to another, except as provided in Rule 335-3-16-.13(1)(a)5.</p>	Rule 335-3-16-.02(6)
<p>2. <u>Renewals</u></p> <p>An application for permit renewal shall be submitted at least six (6) months, but not more than eighteen (18) months, before the date of expiration of this permit.</p> <p>The source for which this permit is issued shall lose its right to operate upon the expiration of this permit unless a timely and complete renewal application has been submitted within the time constraints listed in the previous paragraph.</p>	Rule 335-3-16-.12(2)
<p>3. <u>Severability Clause</u></p> <p>The provisions of this permit are declared to be severable and if any section, paragraph, subparagraph, subdivision, clause, or phrase of this permit shall be adjudged to be invalid or unconstitutional by any court of competent jurisdiction, the judgment shall not affect, impair, or invalidate the remainder of this permit, but shall be confined in its operation to the section, paragraph, subparagraph, subdivisions, clause, or phrase of this permit that shall be directly involved in the controversy in which such judgment shall have been rendered.</p>	Rule 335-3-16-.05(e)
<p>4. <u>Compliance</u></p> <p>(a) The permittee shall comply with all conditions of ADEM Admin. Code 335-3. Noncompliance with this permit will constitute a violation of the Clean Air Act of 1990 and ADEM Admin. Code 335-3 and may result in an enforcement action; including but not limited to, permit termination, revocation and reissuance, or modification; or denial of a permit renewal application by the permittee.</p> <p>(b) The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.</p>	<p>Rule 335-3-16-.05(f)</p> <p>Rule 335-3-16-.05(g)</p>

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<p>5. <u>Termination for Cause</u></p> <p>This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance will not stay any permit condition.</p>	Rule 335-3-16-.05(h)
<p>6. <u>Property Rights</u></p> <p>The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.</p>	Rule 335-3-16-.05(i)
<p>7. <u>Submission of Information</u></p> <p>The permittee must submit to the Department, within 30 days or for such other reasonable time as the Department may set, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or termination of this permit or to determine the compliance with this permit. Upon receiving a specific request, the permittee shall also furnish to the Department copies of records required to be kept by this permit.</p>	Rule 335-3-16-.05(j)
<p>8. <u>Economic Incentives, Marketable Permits, and Emissions Trading</u></p> <p>No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.</p>	Rule 335-3-16-.05(k)
<p>9. <u>Certification of Truth, Accuracy, and Completeness</u></p> <p>Any application form, report, test data, monitoring data, or compliance certification submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.</p>	Rule 335-3-16-.07(a)

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<p>10. <u>Inspection and Entry</u></p> <p>Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized representatives of the Alabama Department of Environmental Management and EPA to conduct the following:</p> <ul style="list-style-type: none">(a) Enter upon the permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept pursuant to the conditions of this permit;(b) Review and/or copy, at reasonable times, any records that must be kept pursuant to the conditions of this permit;(c) Inspect, at reasonable times, this facility's equipment (including monitoring equipment and air pollution control equipment), practices or operations regulated or required pursuant to this permit.(d) Sample or monitor, at reasonable times, substances of parameters for the purpose of assuring compliance with this permit or other applicable requirements.	Rule 335.-3-16-.07(b)
<p>11. <u>Compliance Revisions</u></p> <ul style="list-style-type: none">(a) The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already compliance.(b) The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit.	Rule 335-3-16-.07(c)
<p>12. <u>Compliance Certification</u></p> <p>A compliance certification shall be submitted annually by March 1st each year.</p> <ul style="list-style-type: none">(a) The compliance certification shall include the following:<ul style="list-style-type: none">(1) The identification of each term or condition of this permit that is the basis of the certification;	Rule 335-3-16-.07(e)

General Permit Provisos

Federally Enforceable Provisos	Regulations
<p>(2) The compliance status;</p> <p>(3) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with Rule 335-3-16-.05(c) (Monitoring and Recordkeeping Requirements);</p> <p>(4) Whether compliance has been continuous or intermittent;</p> <p>(5) Such other facts as the Department may require to determine the compliance status of the source;</p> <p>(b) The compliance certification shall be submitted to:</p> <p style="text-align: center;">Alabama Department of Environmental Management Air Division P.O. Box 301463 Montgomery, AL 36130-1463 And to:</p> <p style="text-align: center;">Air and EPCRA Enforcement Branch EPA Region IV 61 Forsyth Street, SW Atlanta, GA 30303</p>	
<p>13. <u>Reopening for Cause</u></p> <p>Under any of the following circumstances, this permit will be reopened prior to the expiration of the permit:</p> <p>(a) Additional applicable requirements under the Clean Air Act of 1990 become applicable to the permittee with a remaining permit term of three (3) or more years. Such a reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire.</p>	<p>Rule 335-3-16-.13(5)</p>

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<p>(b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into this permit.</p> <p>(c) The Department or EPA determines that this permit contains a material mistake of that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.</p> <p>(d) The Administrator or the Department determines that this permit must be revised or revoked to assure compliance with the applicable requirements.</p>	
<p>14. <u>Additional Rules and Regulations</u></p> <p>This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.</p>	<p>§22-28-16(d), Code of Alabama 1975, as amended</p>
<p>15. <u>Equipment Maintenance or Breakdown</u></p> <p>(a) In the case of shutdown of air pollution control equipment (which operates pursuant to any permit issued by the Director) for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the Director at least twenty-four (24) hours prior to the planned shutdown, unless such shutdown is accompanied by the shutdown of the source which such equipment is intended to control. Such prior notice shall include, but is not limited to the following:</p> <p>(1) Identification of the specific facility to be taken out of service as well as its location and permit number;</p> <p>(2) The expected length of time that the air pollution control equipment will be out of service;</p> <p>(3) The nature and quantity of emissions of air contaminants likely to occur during the shutdown period;</p>	<p>Rule 335-3-1-.07(1), (2)</p>

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<p>(4) Measures such as the use of off shift labor and equipment that will be taken to minimize the length of the shutdown period;</p> <p>(5) The reasons that it would be impossible or impractical to shut down the source operation during the maintenance period.</p> <p>(b) In the event that there is a breakdown of equipment or upset of process in such a manner as to cause, or is expected to cause, increased emissions of air contaminants which are above an applicable standard, the person responsible for such equipment shall notify the Director within 24 hours of the next working day and provide a statement giving all pertinent facts, including the estimated duration of the breakdown. The Director shall be notified when the breakdown has been corrected.</p>	
<p>16. <u>Operation of Capture and Control Devices</u></p> <p>Air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.</p>	<p>§22-28-16(d), Code of Alabama 1975, as amended</p>
<p>17. <u>Obnoxious Odors</u></p> <p>This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.</p>	<p>Rule 335-3-1-.08</p>
<p>18. <u>Fugitive Dust</u></p> <p>(a) Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.</p> <p>(b) Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne.</p>	<p>Rule 335-3-4-.02</p>

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<ul style="list-style-type: none"> (1) By the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic; (2) By reducing the speed of vehicular traffic to a point below that at which dust emissions are created; (3) By paving; (4) By the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions; (5) By any combination of the above methods which results in the prevention of dust becoming airborne from the road surface, 	
<p>19. <u>Additions and Revisions</u></p> <p>Any modifications to this source shall comply with the modification procedures in Rule 335-3-16-.13 or 335-3-16-.14.</p>	<p>Rule 335-3-16-.13 and .14</p>
<p>20. <u>Recordkeeping Requirements</u></p> <p>(a) Records of required monitoring information of the source shall include the following:</p> <ul style="list-style-type: none"> (1) The date, place, and time of all sampling or measurements; (2) The date analyses were performed; (3) The company or entity that performed the analyses; (4) The analytical techniques or methods used; 	<p>Rule 335-3-16-.05(c)(2)</p>

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Federally Enforceable Provisos	Regulation
<p>(5) The results of all analyses; and</p> <p>(6) The operating conditions that existed at the time of sampling or measurement.</p> <p>(b) Retention of records of all require monitoring data and support information of the source for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by the permit.</p>	
<p>21. <u>Reporting Requirements</u></p> <p>(a) Reports to the Department of any required monitoring shall be submitted at least every 6 months. All instances of deviations from permit requirements must be clearly identified in said reports. All required reports must be certified by a responsible official consistent with Rule 335-3-16-.04(9).</p> <p>(b) Deviations from permit requirements shall be reported within 48 hours or 2 working days of such deviations, including those attributable to upset conditions as defined in the permit. The report will include the probable cause of said deviations, and any corrective actions or preventative measures that were taken.</p>	<p>Rule 335-3-16-.05(c)(3)</p>
<p>22. <u>Emission Testing Requirements</u></p> <p>Each point of emission which requires testing will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.</p>	<p>Rule 335-3-1-.05(3) Rule 335-3-1-.04(1)</p>

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<p>The Air Division must be notified in writing at least 10 days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department’s air pollution control rules and regulations. To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:</p> <p>To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:</p> <ul style="list-style-type: none"> (a) The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the person and/or testing company that will conduct the test; (b) A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedures require probe cleaning); (c) A description of the process(es) to be tested including the feed rate, any operating parameters used to control or influence the operation, and the rated capacity; (d) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances. <p>A pretest meeting may be held at the request of the source owner or the Air Division. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.</p> <p>All test reports must be submitted to the Air Division within 30 days of the actual completion of the test unless an extension of time is specifically approved by the Air Division.</p>	

General Permit Provisos

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<p>23. <u>Payment of Emission Fees</u></p> <p>Annual emission fees shall be remitted each year according to the fee schedule in ADEM Admin. Code r. 335-1-7-.04.</p>	<p>Rule 335-1-7-.04</p>
<p>24. <u>Other Reporting and Testing Requirements</u></p> <p>Submission of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require emission testing at any time.</p>	<p>Rule 335-3-1-.04(1)</p>
<p>25. <u>Title VI Requirements (Refrigerants)</u></p> <p>Any facility having appliances or refrigeration equipment, including air conditioning equipment, which use Class I or Class II ozone-depleting substances as listed in 40 CFR Part 82, Subpart A. Appendices A and B, shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82, Subpart F.</p> <p>No person shall knowingly vent or otherwise release any Class I or Class II substance into the environment during the repair, servicing, maintenance, or disposal of any device except as provided in 40 CFR Part 82, Subpart F.</p> <p>The responsible official shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the US EPA and the Department as required.</p>	<p>40 CFR Part 82</p>
<p>26. <u>Chemical Accident Prevention Provisions</u></p> <p>If a chemical listed in Table 1 if 40 CFR 68.130 is present in a chemical process in quantities greater than the threshold quantity listed in Table 1, then:</p> <p>(a) The owner or operator shall comply with the provisions in 40 CFR Part 68;</p> <p>(b) The owner or operator shall submit one of the following:</p>	<p>40 CFR Part 68</p>

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<p>(1) A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or</p> <p>(2) A certification statement that the source is in compliance with all requirements of CFR Part 68, including the registration and submission of the Risk Management Plan.</p>	
<p>27. <u>Display of Permit</u></p> <p>This permit shall be kept under file or on display at all times at the site where the facility for which the permit is issued is located and will be made readily available for inspection by any or all persons who may request to see it.</p>	Rule 335-3-14-.01(1)(d)
<p>28. <u>Circumventions</u></p> <p>No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes any emission of air contaminant which would otherwise violate the Division 3 rules and regulations.</p>	Rule 335-3-1-.10
<p>29. <u>Visible Emissions</u></p> <p>Unless otherwise specified in the Unit Specific provisos of this permit, any source of particulate emissions shall not discharge more than one 6-minute average opacity greater than 20% in any 60-minute period. At no time shall any source discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity will be determined by 40 CFR Part 60, Appendix A, Method 9, unless otherwise specified in the Unit Specific provisos of this permit.</p>	Rule 335-3-4-.01(1)
<p>30. <u>Fuel-Burning Equipment</u></p> <p>(a) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge particulate emissions in excess of the emissions specified in Rule 335-3-4-.03.</p>	Rule 335-3-4-.03

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<p>(b) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge sulfur dioxide emissions in excess of the emissions specified in Rule 335-3-5-.01.</p>	Rule 335-3-5-.01
<p>31. <u>Process Industries - General</u></p> <p>Unless otherwise specified in the Unit Specific provisos of this permit, no process may discharge particulate emissions in excess of the emissions specified in Rule 335-3-4-.04.</p>	Rule 335-3-4-.04
<p>32. <u>Averaging Time for Emission Limits</u></p> <p>Unless otherwise specified in this permit, the averaging time for the emission limits listed in this permit shall be the nominal time required by the specific test method.</p>	Rule 335-3-1-.05

SUMMARY PAGE FOR ABRASIVE BLASTING OPERATIONS

Permitted

Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emissions Limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
4745 – Fugitive	Building 4745 Sand Blasting	Opacity	N/A	Rule 335-3-4-.02

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PROVISOS FOR ABRASIVE BLASTING

Federally Enforceable Provisos	Regulations
<i>Applicability</i>	
1. These sources are subject to the applicable requirements of ADEM Admin. Code R 335-3-16-.03, "Major Source Operating Permits."	Rule 335-3-16-.03
2. These sources are subject to the requirements of ADEM Admin. Code r. 335-3-4-.02, " <i>Fugitive Dust and Fugitive Emissions</i> " for Particulate Emissions and the requirements specified in this subpart of this permit.	Rule 335-3-4-.02
<i>Emission Standards</i>	
1. These sources are subject to no additional specific requirements other than those listed in the General Permit Provisos	N/A
<i>Compliance and Performance Test Methods and Procedures</i>	
1. These sources are subject to no additional specific requirements other than those listed in the General Permit Provisos.	Rule 335-3-1-.04
<i>Emission Monitoring</i>	
1. These sources are subject to no additional specific requirements other than those listed in the General Permit Provisos.	N/A
<i>Recordkeeping and Reporting Requirements</i>	
1. These sources are subject to no additional specific requirements other than those listed in the General Permit Provisos.	N/A

SUMMARY PAGE FOR CLEANING OPERATIONS

Permitted

Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emissions Limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
4711-179A-01	Batch Vapor Degreaser	VOC	N/A	N/A
4711-179A-01	Batch Vapor Degreaser	Opacity	See General Provisos	Rule 335-3-4-01(1)
PC-Fugitive	Pipe Cleaning	VOCs	N/A	N/A
PC-Fugitive	Pipe Cleaning	HAPs	N/A	N/A
PC-Fugitive	Pipe Cleaning	Opacity	N/A	Rule 335-3-4-02

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PROVISOS FOR CLEANING OPERATIONS

Federally Enforceable Provisos	Regulations
<i>Applicability</i>	
1. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, “Major Source Operating Permits”.	Rule 335-3-16-.03
2. Vapor batch degreasers are subject to the requirements of ADEM Admin. Code r. 335-3-4-.01, “Visible Emissions” for Control of Particulate Emissions and the requirements specified in this subpart of this permit.	Rule 335-3-4-.01
3. Fugitive emissions sources are subject to the requirements of ADEM Admin. Code r. 335-3-4-.02, “Fugitive Dust and Fugitive Emissions” for Particulate Emissions and the requirements specified in this subpart of this permit.	Rule 335-3-4-.02
<i>Emission Standards</i>	
1. These sources are subject to no additional specific requirements other than those listed in the General Provisos.	N/A
<i>Compliance and Performance Test Methods and Procedures</i>	
1. These sources are subject to no additional specific requirements other than those listed in the General Provisos.	N/A
<i>Emission Monitoring</i>	
1. These sources are subject to no additional specific requirements other than those listed in the General Provisos.	N/A
<i>Recordkeeping and Reporting Requirements</i>	
1. These sources are subject to no additional specific requirements other than those listed in the General Provisos.	N/A

SUMMARY PAGE FOR SURFACE COATING OPERATIONS

Permitted

Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emissions Limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
4602-1111-01	Surface Coating of Metal Test Panels	PM*	E = 3.59(P) ^{0.62}	Rule 335-3-4-.04
4602-1111-01	Surface Coating of Metal Test Panels	VOC	N/A	N/A
4602-1111-01	Surface Coating of Metal Test Panels	HAPs	N/A	N/A
4602-1111-01	Surface Coating of Metal Test Panels	Opacity	See General Provisos	Rule 335-3-4-.01(1)
4650-PB-01	Maintenance Painting	PM*	E = 3.59(P) ^{0.62}	Rule 335-3-4-.04
4650-PB-01	Maintenance Painting	VOC	N/A	N/A
4650-PB-01	Maintenance Painting	HAPs	N/A	N/A
4650-PB-01	Maintenance Painting	Opacity	See General Provisos	Rule 335-3-4-.01(1)
4707-130-01	Surface Coating of Test Panels	PM*	E = 3.59(P) ^{0.62}	Rule 335-3-4-.04
4707-130-01	Surface Coating of Test Panels	VOC	N/A	N/A
4707-130-01	Surface Coating of Test Panels	HAPs	N/A	N/A
4707-130-01	Surface Coating of Test Panels	Opacity	See General Provisos	Rule 335-3-4-.01(1)
4760-PAINT	Coating of Space Vehicles Parts	PM*	E = 3.59(P) ^{0.62}	Rule 335-3-4-.04
4760-PAINT	Coating of Space Vehicles Parts	VOC	N/A	N/A
4760-PAINT	Coating of Space Vehicles Parts	HAPs	N/A	N/A
4760-PAINT	Coating of Space Vehicles Parts	Opacity	See General Provisos	Rule 335-3-4-.01(1)
4765-SOFI	Thermal Protection System Development	PM*	E = 3.59(P) ^{0.62}	Rule 335-3-4-.04
4765-SOFI	Thermal Protection System Development	VOC	39.0 TPY	Rule 335-3-14-.04 (Anti-PSD)
4765-SOFI	Thermal Protection System Development	HAPs	9.5 TPY – Single HAP 23.5 TPY Combination	Rule 335-3-14-.06 (Anti-112g)
4765-SOFI	Thermal Protection System Development	Opacity	See General Provisos	Rule 335-3-4-.01(1)

*Applies to point sources.

PROVISOS FOR SURFACE COATING OPERATIONS

Federally Enforceable Provisos	Regulations
<i>Applicability</i>	
1. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. Source 4765-SOFI has enforceable limits in place to prevent the facility from being subject to the provisos of ADEM Admin. Code r. 335-3-14-.04, "Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]."	Rule 335-3-14-.04 [ANTI-PSD]
3. These sources are subject to the requirements of ADEM Admin. Code r. 335-3-4-.01, " <i>Visible Emissions</i> " for Control of Particulate Emissions and the requirements specified in this subpart of this permit.	Rule 335-3-4-.01
4. Point sources are subject to the requirements of ADEM Admin. Code r. 335-3-4-.04, " <i>Process Industries – General</i> " for Control of particulate matter emissions and the requirements specified in this subpart of this permit.	Rule 335-3-4-.04
5. Source 4765-SOFI gas enforceable limits in place to prevent the facility from being subject to the provisions of ADEM Admin. Code r. 335-3-14-.06, "Requirements for Control Technology [Determinations for Major Sources in Accordance with Clean Air Act Section 112(g)]."	Rule 335-3-14-.06 [ANTI-112(g)]
<i>Emission Standards</i>	
1. These units shall meet the requirements specified in Proviso 1(a) and (b) of this section.	
(a) Except for one 6-minute period during any 60-minute period, each emission source shall not discharge into the atmosphere particulate matter than results in an opacity greater than 20%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(a)
(b) At no time shall an emission source discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(b)
2. Particulate matter emissions from these units shall not exceed that which is calculated using the process weight equation, as defined in ADEM Admin. Code r. 335-3-4-.04(1).	Rule 335-3-4-.04(1)

PROVISOS FOR SURFACE COATING OPERATIONS

Federally Enforceable Provisos	Regulations
<p>3. Emissions of volatile organic compounds (VOCs) from all operations at the Building 4765 Thermal Protection System Booth (4765-SOFI) including, but not limited to surface coating, storage cleanup, etc., shall not exceed 39 tons per year (TPY) in any consecutive rolling 12-month period based on the premise that all VOCs applied are emitted.</p>	<p>Rule 335-3-14-.04 [ANTI-PSD]</p>
<p>4. Emissions of hazardous air pollutants (HAPs) from all operations at the Building 4765 Thermal Protection System Booth (4765-SOFI) including, but not limited to surface coating, storage, cleanup, etc., shall not exceed 9.5 TPY of any single HAP or 23.5 TPY of any combination of HAPs in any consecutive rolling 12-month period based on the premise that all VOCs applied are emitted or are emitted to an emission control device with a control efficiency.</p>	<p>Rule 335-3-14-.06 [ANTI-112(g)]</p>
<p><i>Compliance and Performance Test Methods and Procedures</i></p>	
<p>1. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity of the stack emissions.</p>	<p>Rule 335-3-1-.05</p>
<p>2. Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions.</p>	<p>Rule 335-3-1-.05</p>
<p>3. Method 24 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of volatile organic compound emissions.</p>	<p>Rule 335-3-1-.05</p>
<p>4. Method 311 of 40 CFR (Latest Edition) Part 63, Appendix A shall be used in the determination of hazardous air pollutant emissions.</p>	<p>Rule 335-3-1-.05</p>
<p><i>Emission Monitoring</i></p>	
<p>1. The dry filter(s) associated with each paint booth shall be inspected on at least an annual basis to ensure maintenance is performed in such a manner as to minimize the emission of particulate matter.</p>	<p>Rule 335-3-16-.05(c)</p>
<p><i>Recordkeeping and Reporting Requirements</i></p>	
<p>1. Records of the required dry filter inspections, along with records of any maintenance performed on the filter(s) shall be kept in a form suitable for inspection for at least five (5) years following the date of generation of the record.</p>	<p>Rule 335-3-16-.05(c)</p>

PROVISOS FOR SURFACE COATING OPERATIONS

Federally Enforceable Provisos	Regulations
<p>2. Accurate and understandable records, concerning VOC and HAP emissions from the Building 4765 Thermal Protection System Booth (4765-SOFI) shall be kept in a form suitable for inspection for at least five (5) years following the date of generation of the record. These records will be made available immediately upon request and will contain the following information:</p> <ul style="list-style-type: none"> (a) The type, quantity in gallons, and weight in pounds of each VOC and HAP containing materials used each calendar month. (b) The VOC content by weight (in pounds per gallon) of each VOC containing materials used shall be determined either by using EPA Test Method 24, as defined in 40 CFR 60, Appendix A, or equivalent vendor data approved by the Department in advance. The VOC content of coating may be determined by test method on a random basis to verify formulation data and such other times as the Department may request. (c) The HAP content by weight (in pounds per gallon) of each coating used shall be determined using EPA Test Method 311, as defined in 40 CFR 63, Appendix A, or equivalent vendor data approved by the Department in advance. (d) The percent by volume and percent by weight of VOCs, HAPs, solids, water, and content of each VOC and HAP containing materials used each calendar month. (e) Complete inventories of HAP and VOC containing materials (their usage and HAP and VOC content) shall be made at the end of each calendar month. Compliance with HAP and VOC limits shall be based upon these monthly materials use inventories and the use and control efficiency of the particulate filters. Emissions calculations and records will also incorporate the use and control efficiency of the particulate filters. (f) The amount of VOCs and HAPS emitted each calendar month expressed in the units of pounds and tons. (g) The rolling 12-month total of VOCs and HAPs emitted in the units of pounds and tons. 	<p>Rule 335-3-16-.05(c)</p>

SUMMARY PAGE FOR GASOLINE DISPENSING FACILITY – STAGE I

Permitted

Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
4611-E85	12,000 Gallon E-85 Storage Tank – Building 4611	VOC	N/A	Rule 335-3-6-.07
4611-1	20,000 Gallon Gasoline Storage Tank – Building 4611	VOC	N/A	Rule 335-3-6-.07

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PROVISOS FOR GASOLINE DISPENSING FACILITY – STAGE I

Federally Enforceable Provisos	Regulations
<i>Applicability</i>	
1. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, “Major Source Operating Permits”.	Rule 335-3-16-.03
2. These sources are subject to the applicable requirements of ADEM Admin Code r. 335-3-6-.07, “Gasoline Dispensing Facilities- Stage I.”	Rule 335-3-6-.07
<i>Emission Standards</i>	
1. The Permittee shall not transfer, cause, or allow the transfer of gasoline from any gasoline tank truck into this unit unless the tank is equipped with a submerged fill pipe and the vapors displaced from the storage tank during filling are processed by a vapor control system in accordance with ADEM Admin. Code r. 335-3-6-.07(4).	Rule 335-3-6-.07(3)
2. The Permittee shall not permit the transfer of gasoline between a gasoline tank truck and this unit unless the gasoline tank truck complies with ADEM Admin. Code r. 335-3-6-.20 and the vapor control system is connected and operating in accordance with ADEM Admin. Code r. 335-3-6-.07(4).	Rule 335-3-6-.07(5)(a)
3. The Permittee shall not cause or allow gasoline to be spilled, discarded in sewers, stored in open containers, or handled in any other manner that would result in evaporation of the gasoline to the atmosphere.	Rule 335-3-6-.07(6)
<i>Compliance and Performance Test Methods and Procedures</i>	
1. In the event that testing is required by the Department, the Permittee shall demonstrate compliance with the emission standards above by following procedures outlined in Section 12 of ADEM Admin. Code r. 335-3-6-.16, “Testing and Monitoring Procedures for Leaks from Gasoline Tank Trucks and Vapor Collection Systems”.	Rule 335-3-6-.16(12)
<i>Emission Monitoring</i>	
1. These sources are subject to no additional specific requirements other than those listed in the General Permit Provisos.	N/A

PROVISOS FOR GASOLINE DISPENSING FACILITY – STAGE I

Federally Enforceable Provisos	Regulations
<p><i>Recordkeeping and Reporting Requirements</i></p> <p>1. The Permittee shall maintain written records of the monthly throughput quantities in gallons in these units for a minimum of five (5) years after the date on which the documents were made. These records will be made available to the Department upon request.</p>	<p>Rule 335-3-6-.07(5)(b&c)</p>

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SUMMARY PAGE FOR TESTING OPERATIONS

Permitted

Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
RP-1	RP-1 Engine Testing	PM	N/A	N/A
RP-1	RP-1 Engine Testing	SO ₂	N/A	N/A
RP-1	RP-1 Engine Testing	NO _x	N/A	N/A
RP-1	RP-1 Engine Testing	CO	N/A	N/A
RP-1	RP-1 Engine Testing	VOC	N/A	N/A
RP-1	RP-1 Engine Testing	Opacity	Fugitive Emissions	Rule 335-3-4-.02
SRM	Solid Rocket Motor Testing	PM	N/A	N/A
SRM	Solid Rocket Motor Testing	SO ₂	N/A	N/A
SRM	Solid Rocket Motor Testing	NO _x	N/A	N/A
SRM	Solid Rocket Motor Testing	CO	N/A	N/A
SRM	Solid Rocket Motor Testing	VOC	N/A	N/A
SRM	Solid Rocket Motor Testing	Opacity	Fugitive Emissions	Rule 335-3-4-.02
HPP	Hybrid Rocket Motor Testing	PM	N/A	N/A
HPP	Hybrid Rocket Motor Testing	SO ₂	N/A	N/A
HPP	Hybrid Rocket Motor Testing	NO _x	N/A	N/A
HPP	Hybrid Rocket Motor Testing	CO	N/A	N/A
HPP	Hybrid Rocket Motor Testing	VOC	N/A	N/A
HPP	Hybrid Rocket Motor Testing	Opacity	Fugitive Emissions	Rule 335-3-4-.02
RLF	Radiant Lamp Facility	PM	N/A	N/A
RLF	Radiant Lamp Facility	SO ₂	N/A	N/A
RLF	Radiant Lamp Facility	NO _x	N/A	N/A
RLF	Radiant Lamp Facility	CO	N/A	N/A
RLF	Radiant Lamp Facility	VOC	N/A	N/A
RLF	Radiant Lamp Facility	Opacity	Fugitive Emissions	Rule 335-3-4-.02

PROVISOS FOR TESTING OPERATIONS

Federally Enforceable Provisos	Regulations
<i>Applicability</i>	
1. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. These sources are subject to the fugitive emissions requirements of ADEM Admin. Code r. 335-3-4-.02, " <i>Fugitive Dust and Fugitive Emissions</i> " for Particulate Emissions and the requirements specified in this subpart of this permit.	Rule 335-3-4-.02
3. The Propulsion Engine and Launch System Testing is subject to the applicable requirements of 40CFR Part 63 Subpart P, "National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Standards ". These test stands are classified as existing engine test cell stands and, per §63.9290(b), do not have to meet the requirements of Subpart P and Subpart A.	40 CFR Part 63 Subpart P
<i>Emission Standards</i>	
1. These operations are not subject to any standards other than the applicable standards contained in the general provisos.	N/A
<i>Compliance and Performance Test Methods and Procedures</i>	
1. These operations are not subject to any standards other than the applicable standards contained in the general provisos.	N/A
<i>Emission Monitoring</i>	
1. These operations are not subject to any standards other than the applicable standards contained in the general provisos.	N/A
<i>Recordkeeping and Reporting Requirements</i>	
1. These operations are not subject to any standards other than the applicable standards contained in the general provisos.	N/A

SUMMARY PAGE FOR SMALL NATURAL GAS BOILERS (APPENDIX A)

Permitted

Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
See Appendix A	Small Natural Gas Boilers (less than 10 MMBtu/hr)	PM	0.5 lb/MMBtu	Rule 335-3-4-.03
See Appendix A	Small Natural Gas Boilers (less than 10 MMBtu/hr)	SO ₂	Natural Gas Only	Rule 335-3-14-.04 (Anti-PSD)
See Appendix A	Small Natural Gas Boilers (less than 10 MMBtu/hr)	NO _x	N/A	N/A
See Appendix A	Small Natural Gas Boilers (less than 10 MMBtu/hr)	CO	N/A	N/A
See Appendix A	Small Natural Gas Boilers (less than 10 MMBtu/hr)	VOC	N/A	N/A
See Appendix A	Small Natural Gas Boilers (less than 10 MMBtu/hr)	Opacity	See General Provisos	Rule 335-3-4-.01(1)

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PROVISOS FOR SMALL NATURAL GAS BOILERS (APPENDIX A)

Federally Enforceable Provisos	Regulations
<i>Applicability</i>	
1. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. These sources have enforceable limits in place in order to prevent them from being subject to the provisions of ADEM Admin. Code r. 335-3-14-.04 "Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]".	Rule 335-3-14-.04
3. These sources are subject to the requirements of ADEM Admin. Code r. 335-3-4-.01, " <i>Visible Emissions</i> " for Control of Particulate Emissions and the requirements specified in this subpart of this permit.	Rule 335-3-4-.01
4. These sources are subject to the requirements of ADEM Admin. Code r. 335-3-4-.03, " <i>Fuel Burning Equipment</i> " for control of particulate matter emissions and the requirements specified in this subpart of this permit.	Rule 335-3-4-.03
5. These sources are subject to the requirements of ADEM Admin. Code r. 335-3-5-.01(1) for control of sulfur dioxide emissions and the requirements specified in this subpart of this permit.	Rule 335-3-5-.01(1)
6. These sources are subject to the applicable requirements of 40 CFR Part 63 Subpart DDDDD, "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters".	40 CFR Part 63 Subpart DDDDD
7. These sources are subject to the applicable requirements of Subpart A of 40 CFR Part 63, "General Provisions" as listed in Table 10 of Subpart DDDDD.	40 CFR Part 63 Subpart DDDDD
<i>Emission Standards</i>	
1. These units shall meet the requirements specified in Proviso 1(a) and (b) of this section.	Rule 335-3-4-.01(1)

PROVISOS FOR SMALL NATURAL GAS BOILERS (APPENDIX A)

Federally Enforceable Provisos	Regulations
(a) Except for one 6-minute period during any 60-minute period, each emission source shall not discharge into the atmosphere particulate matter than results in an opacity greater than 20%, as determined by a 6-minute average.	Rule 335-3-4-.04(1)(a)
(b) At no time shall an emission source discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(b)
2. These sources shall combust natural gas only with the exception of Boilers 4209-01 and 4209-02 (which burn LP gas.)	Rule 335-3-14-.04 (PSD Avoidance)
3. The permittee must operate and maintain these sources, at all times, in a manner consistent with safety and good air pollution control practices for minimizing emissions.	40 CFR 60.7500(a)(3)
4. Particulate matter emissions shall not exceed that as determined by ADEM Admin. Code r. 335-3-4-.03.	Rule 335-3-4-.03
<i>Compliance and Performance Test Methods and Procedures</i>	
1. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity of the stack emissions.	Rule 335-3-1-.05
2. Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions	Rule 335-3-1-.05
3. Method 6 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of sulfur dioxide emissions.	Rule 335-3-1-.05
<i>Emission Monitoring</i>	
1. The Permittee must conduct a tune-up of each boiler with a heat input capacity of less than 5 MMBtu/hr every 5 years based on the requirements in §63.7540(a)(10)(i) through §63.7540(a)(10)(vi).	40 CFR 63.7540(a)(12)
2. The Permittee must conduct biennial tune-ups of each boiler with a heat input capacity of less than 10 MMBtu/hr but greater than 5 MMBtu/hr based on the requirements in §63.7540(a)(10)(i) through §63.7540(a)(10)(vi).	40 CFR 63.7540(a)(11)

PROVISOS FOR SMALL NATURAL GAS BOILERS (APPENDIX A)

Federally Enforceable Provisos	Regulations
3. If a boiler is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.	40 CFR 63.7540(a)(13)
<i>Recordkeeping and Reporting Requirements</i>	
1. The Permittee must submit a biennial or 5-year compliance report as required by §63.7550(b).	40 CFR 63.7550(b)
2. A copy of each notification and report submitted to comply with this subpart shall be maintained for a period of five (5) years following the date of generation of the record.	40 CFR 63.7555(a) and 40 CFR 63.7560(b)

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SUMMARY PAGE FOR SMALL FUEL OIL/DUAL FUEL BOILERS (APPENDIX B)

Permitted

Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
See Appendix B	Small Fuel Oil/Dual Fuel Boilers (less than 10 MMBtu/hr)	PM	$E = 1.38(H)^{-0.44}$	Rule 335-3-4-.03
See Appendix B	Small Fuel Oil/Dual Fuel Boilers (less than 10 MMBtu/hr)	SO ₂	0.5% sulfur content	Rule 335-3-14-.04 (Anti-PSD)
See Appendix B	Small Fuel Oil/Dual Fuel Boilers (less than 10 MMBtu/hr)	NO _x	N/A	N/A
See Appendix B	Small Fuel Oil/Dual Fuel Boilers (less than 10 MMBtu/hr)	CO	N/A	N/A
See Appendix B	Small Fuel Oil/Dual Fuel Boilers (less than 10 MMBtu/hr)	VOC	N/A	N/A
See Appendix B	Small Fuel Oil/Dual Fuel Boilers (less than 10 MMBtu/hr)	Opacity	See General Provisos	Rule 335-3-4-.01(1)

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PROVISOS FOR SMALL FUEL OIL/DUAL FUEL BOILERS (APPENDIX B)

Federally Enforceable Provisos	Regulations
<i>Applicability</i>	
1. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, “Major Source Operating Permits”.	Rule 335-3-16-.03
2. These sources have enforceable limits in place in order to prevent them from being subject to the provisions of ADEM Admin. Code r. 335-3-14-.04, “Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration].”	Rule 335-3-14-.04
3. These sources are subject to the requirements of ADEM Admin. Code r. 335-3-4-.01, “Visible Emissions” for Control of Particulate Emissions and the requirements specified in this subpart of this permit.	Rule 335-3-4-.01
4. These sources are subject to the requirements of ADEM Admin. Code r. 335-3-4-.03, “Fuel Burning Equipment” for control of particulate matter emissions and the requirements specified in this subpart of this permit.	Rule 335-3-4-.03
5. These sources are subject to the applicable requirements of Subpart A of 40 CFR Part 63, “General Provisions” as listed in Table 10 of Subpart DDDDD.	40 CFR Part 63 Subpart DDDDD
<i>Emission Standards</i>	
1. These units shall meet the requirements specified in Proviso 1(a) and (b) of this section.	Rule 335-3-4-.01(1)
(a) Except for one 6-minute period during any 60-minute period, each emission source shall not discharge into the atmosphere particulate matter than results in an opacity greater than 20%, as determined by a 6-minute average.	Rule 335-3-4-.04(1)(a)
(b) At no time shall an emission source discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(b)

PROVISOS FOR SMALL FUEL OIL/DUAL FUEL BOILERS (APPENDIX B)

Federally Enforceable Provisos	Regulations
3. Particulate matter emissions shall not exceed that as determined by ADEM Admin. Code r. 335-3-4-.03.	Rule 335-3-4-.03
4. These units shall burn only natural gas or No. 2 fuel oil. The sulfur content of the No. 2 fuel oil shall not exceed 0.5% by weight.	Rule 335-3-14-.04 (ANTI-PSD)
5. The Permittee must operate and maintain these sources, at all times, in a manner consistent with safety and good air pollution control practices for minimizing emissions.	40 CFR 60.7500(a)(3)
<i>Compliance and Performance Test Methods and Procedures</i>	
1. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.	Rule 335-3-1-.05
2. Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions.	Rule 335-3-1-.05
3. The sulfur content of the fuel oil delivered to the boilers shall be measured in accordance with ASTM D129-64 or an alternative method approved by the Department.	Rule 335-3-1-.05
<i>Emission Monitoring</i>	
1. The Permittee must conduct a tune-up of each boilers with a heat input capacity of less than 5 MMBtu/hr every 5 years based on the requirements in §63.7540(a)(10)(i)-(vi).	40 CFR 63.7540(a)(12)
2. The Permittee must conduct biennial tune-ups of each boiler with a heat input capacity of less than 10 MMBtu/hr but greater than 5 MMBtu/hr based on the requirements in §63.7540(a)(10)(i)-(vi).	40 CFR 63.7540(a)(11)
3. If a boiler is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.	40 CFR 63.7540(a)(13)

PROVISOS FOR SMALL FUEL OIL/DUAL FUEL BOILERS (APPENDIX B)

Federally Enforceable Provisos	Regulations
<i>Recordkeeping and Reporting Requirements</i>	
4. The Permittee must submit a biennial or 5-year compliance report as required by §63.7550(b).	40 CFR 63.7550(b)
5. Records of the sulfur content of the fuel oil combusted must be kept in a form suitable for inspection and shall be made available upon request. These records shall be retained for at least five years following the date of generation.	Rule 335-3-16-.05(c)
6. Daily records of flame appearance checks and monthly calculations of the boiler efficiency shall be maintained. These records shall be retained for at least five years following the date of generation and shall be made available upon request.	Rule 335-3-16-.05(c)
7. Records of boiler inspections and maintenance performed shall be kept in a form suitable for inspection. These records shall be retained for at least five years following the date of generation and shall be made available upon request.	Rule 335-3-16-.05(c)

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SUMMARY PAGE FOR NSPS SUBPART III – RECIPROCATING INTERNAL COMBUSTION ENGINES (RICE) [APPENDIX C]

Permitted

Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
See Appendix C	Diesel Fired Reciprocating Internal Combustion Engines (RICE)	PM	See Table 1 of 40 CFR Part 60 Subpart III	40 CFR Part 60 Subpart III
See Appendix C	Diesel Fired Reciprocating Internal Combustion Engines (RICE)	SO ₂	N/A	N/A
See Appendix C	Diesel Fired Reciprocating Internal Combustion Engines (RICE)	NO _x	See Table 1 of 40 CFR Part 60 Subpart III	40 CFR Part 60 Subpart III
See Appendix C	Diesel Fired Reciprocating Internal Combustion Engines (RICE)	CO	See Table 1 of 40 CFR Part 60 Subpart III	40 CFR Part 60 Subpart III
See Appendix C	Diesel Fired Reciprocating Internal Combustion Engines (RICE)	VOC	N/A	N/A
See Appendix C	Diesel Fired Reciprocating Internal Combustion Engines (RICE)	Opacity	6-minute average opacity shall not exceed 20% in any 60 minute period (except for one 6-minute period in any 60-minute period) At no time shall any 6-minute average opacity exceed 40%	Rule 335-3-4-1(1)(a) Rule 335-3-4-1(1)(b)

**PROVISOS FOR NSPS SUBPART III – RECIPROCATING INTERNAL COMBUSTION
ENGINES (RICE) [APPENDIX C]**

Federally Enforceable Provisos	Regulations
<i>Applicability</i>	
1. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, “Major Source Operating Permits”.	Rule 335-3-16-.03
2. These sources are subject to the applicable requirements of 40 CFR Part 60 Subpart III, “Standards of Performance for Stationary Compression Ignition Internal Combustion Engines”.	40 CFR Part 60 Subpart III
3. These sources are subject to the applicable requirements of Subpart A of 40 CFR Part 60, "General Provisions" as listed in Table 8 of Subpart III.	40 CFR Part 60 Subpart III
4. Emergency Generators 4208, 4602, 4650, and 4663-GEN00004 do not have to meet the requirements of Subpart ZZZZ or 40 CFR Part 63 Subpart A except for the initial notification requirements of §63.6645(f).	40 CFR 63.6590(b)(1)(i)
5. Emergency Generators 4201-GEN0003, 4220, 4250, 4464-GEN00001, 4601, 4611, and 4778 must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart III, for compression ignition engines.	40 CFR 63.6590(c)(6)
<i>Emission Standards</i>	
1. These units are subject to the applicable emission standards listed in Table 1 to 40 CFR Part 60 Subpart III and 40 CFR 60.4202(a)(2).	40 CFR 60.4205(a) 40 CFR 60.4205(b)
2. These units must be certified according to 40 CFR Part 60 Subpart III for the same model year and maximum engine power.	40 CFR 60.4205(b)
3. These units must be installed and configured according to the manufacturer’s specifications.	40 CFR 60.4211(a) & 60.4211(b)
4. The facility must operate and maintain these units according to the manufacturer’s written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.	40 CFR 60.4206
5. These units must use diesel fuel that meets the requirements of 40 CFR 80.510(b).	40 CFR 60.4207(b)

**PROVISOS FOR NSPS SUBPART III – RECIPROCATING INTERNAL COMBUSTION
ENGINES (RICE) [APPENDIX C]**

Federally Enforceable Provisos	Regulations
6. The Permittee must install a non-resettable hour meter prior to startup of the engines.	40 CFR 60.4209(a)
7. These units may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of these units are limited to 100 hours per year. There is no time limit on the use of these units in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year . These units may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in 40 CFR 60 Subpart III, is prohibited.	40 CFR 60.4211(f)
8. These units are subject to the opacity emissions requirements of stationary sources and the emissions standards of 40 CFR 60.4202.	Rule 335-3-4-.01 40 CFR 60.4202
<i>Compliance and Performance Test Methods and Procedures</i>	
1. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.	Rule 335-3-1-.05
2. Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions.	Rule 335-3-1-.05
3. Method 10 of 40 CFR (latest Edition) Part 60, Appendix A shall be used in the determination of carbon monoxide emissions.	Rule 335-3-1-.05

**PROVISOS FOR NSPS SUBPART III – RECIPROCATING INTERNAL COMBUSTION
ENGINES (RICE) [APPENDIX C]**

Federally Enforceable Provisos	Regulations
<p>4. Method 7E of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of nitrogen oxide emissions.</p>	<p>Rule 335-3-1-.05</p>
<p><i>Emission Monitoring</i></p>	
<p>1. The Permittee must install a non-resettable hour meter on each unit prior to startup of the unit.</p>	<p>40 CFR 60.4209(a)</p>
<p><i>Recordkeeping and Reporting Requirements</i></p>	
<p>1. The Permittee must keep records of the operation of the emergency generators in this section in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee must record the time of operation of the engine and the reason the engine was in operation during that time.</p>	<p>40 CFR 60.4214(b)</p>

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SUMMARY PAGE FOR MACT SUBPART ZZZZ – RECIPROCATING INTERNAL COMBUSTION ENGINES (RICE) [APPENDIX D]

Permitted

Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
See Appendix D	Reciprocating Internal Combustion Engines (RICE) [Subject to only Subpart ZZZZ]	PM	N/A	N/A
See Appendix D	Reciprocating Internal Combustion Engines (RICE) [Subject to only Subpart ZZZZ]	SO ₂	N/A	N/A
See Appendix D	Reciprocating Internal Combustion Engines (RICE) [Subject to only Subpart ZZZZ]	NO _x	N/A	N/A
See Appendix D	Reciprocating Internal Combustion Engines (RICE) [Subject to only Subpart ZZZZ]	CO	N/A	N/A
See Appendix D	Reciprocating Internal Combustion Engines (RICE) [Subject to only Subpart ZZZZ]	VOC	N/A	N/A
See Appendix D	Reciprocating Internal Combustion Engines (RICE) [Subject to only Subpart ZZZZ]	Opacity	See General Provisos	Rule 335-3-4-.01(1)

**PROVISOS FOR MACT SUBPART ZZZZ – RECIPROCATING INTERNAL COMBUSTION
ENGINES (RICE) [APPENDIX D]**

Federally Enforceable Provisos	Regulations
<i>Applicability</i>	
1. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, “Major Source Operating Permits”.	Rule 335-3-16-.03
2. These sources are subject to the requirements of ADEM Admin. Code r. 335-3-4-.01, “Visible Emissions” for Control of Particulate Emissions and the requirements specified in this subpart of this permit.	Rule 335-3-4-.01
3. These sources are subject to the applicable requirements of 40 CFR Part 63 Subpart ZZZZ, “National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE)”.	40 CFR Part 63 Subpart ZZZZ
4. These sources are subject to the applicable requirements of Subpart A of 40 CFR Part 63, "General Provisions" as listed in Table 8 of Subpart ZZZZ.	40 CFR Part 63 Subpart ZZZZ
<i>Emission Standards</i>	
1. These units shall meet the requirements specified in Proviso 1(a) and (b) of this section.	Rule 335-3-4-.01(1)
(a) Except for one 6-minute period during any 60-minute period, each emission source shall not discharge into the atmosphere particulate matter than results in an opacity greater than 20%, as determined by a 6-minute average.	Rule 335-3-4-.04(1)(a)
(b) At no time shall an emission source discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(b)
2. These units are subject to the applicable requirements listed in Table 2c of 40 CFR 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.	40 CFR 63.6602

**PROVISOS FOR MACT SUBPART ZZZZ – RECIPROCATING INTERNAL COMBUSTION
ENGINES (RICE) [APPENDIX D]**

Federally Enforceable Provisos	Regulations
<p>3. The Permittee must operate and maintain these units according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.</p>	<p>40 CFR 63.6625(e)(2)</p>
<p>4. The Permittee must install a non-resettable hour meter for each unit if one is not already installed.</p>	<p>40 CFR 63.6625(f)</p>
<p>5. These units may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of these units are limited to 100 hours per year. There is no time limit on the use of these units in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. These units may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in 40 CFR 63 Subpart ZZZZ, is prohibited.</p>	<p>40 CFR 63.6640(f)(1)</p>
<p>6. Building 4667 – 2,577 HP engines (4667-999-01 through 4667-999-13) shall burn no more than a total of 456,691 gallons of diesel fuel in any consecutive twelve month period</p>	<p>Rule 335-3-14-.04 [ANTI-PSD]</p>
<p><i>Compliance and Performance Test Methods and Procedures</i></p>	
<p>1. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.</p>	<p>Rule 335-3-1-.05</p>

**PROVISOS FOR MACT SUBPART ZZZZ – RECIPROCATING INTERNAL COMBUSTION
ENGINES (RICE) [APPENDIX D]**

Federally Enforceable Provisos	Regulations
<p>3. If an oil analysis program is utilized for a stationary spark ignition engine, the Permittee must perform the oil analysis at the same frequency specified above for changing the oil. The Permittee must at a minimum analyze the following parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligram of potassium hydroxide (KOH) per gram from the Total Acid Number of the oil when new, viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new, or percent water content (by volume) is greater than 0.5. If any of the limits are exceed, the Permittee must change the oil within 2 business days of receiving the results of the analysis or before commencing operation, whichever is later.</p>	<p>40 CFR 63.6625(j)</p>
<p><i>Recordkeeping and Reporting Requirements</i></p>	
<p>1. The Permittee must keep records of the parameters that are analyzed as part of the oil analysis program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.</p>	<p>40 CFR 63.6625(i) & (j)</p>
<p>2. The Permittee must keep records of the maintenance conducted on these units in order to demonstrate that you operated and maintained these units and after-treatment control device (if any) according to your own maintenance plan.</p>	<p>40 CFR 63.6655(e)</p>
<p>3. The Permittee must keep records of the hours of operation of each engine that is recorded through the non-resettable hour meter. The facility must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.</p>	<p>40 CFR 63.6655(f)</p>
<p>4. Records of monthly and twelve (12) month rolling totals of fuel oil usage in the Building 4667 – 2,577 HP engines (4667-999-01 through 4667-999-13) shall be maintained in a form suitable for inspection for a period of five (5) years from the date the fuel oil is consumed.</p>	<p>Rule 335-3-16-.05(c)</p>

APPENDIX A – SMALL NATURAL GAS BOILERS

<u>Building Number</u>	<u>Source Number</u>	<u>Rated Capacity (MMBtu/hr)</u>
4200	4200-BLR0001	6.00
4200	4200-BLR0002	6.00
4207	4207-BLR0001	2.00
4207	4207-BLR0002	2.00
4209	4209-BLR0001	2.144
4209	4209-BLR0002	2.144
4487	4487AB-BLR0001	2.50
4487	4487AB-BLR0002	2.50
4491	4491-BLR0001	1.68
4610	4610-BLR0001	2.50
4610	4610-BLR0002	2.50
4650	4650-BLR0001	5.00
4650	4650-BLR0002	5.00
4650	4650-BLR0003	5.00
4663	4663-BLR0001	3.50
4663	4663-BLR0002	3.50
4707	4707-BLR0002	3.50
4707	4707-BLR0003	3.50
4707	4707-BLR0004	3.50
4708	4708-BLR0001	2.50
4708	4708-BLR0002	2.50
4708	4708-BLR0003	3.00
4708	4708-BLR0004	3.00
4718	4718-BLR0001	5.10
4765	4765-BLR0001	3.711
4765	4765-BLR0002	3.711

APPENDIX B – SMALL FUEL OIL/DUAL FUEL BOILERS

<u>Building Number</u>	<u>Source Number</u>	<u>Rated Capacity (MMBtu/hr)</u>
Portable Boiler 1	Portable Boiler 1	8.37
Portable Boiler 2	Portable Boiler 2	4.185
Portable Boiler 3	Portable Boiler 3	0.84
Portable Boiler 4	Portable Boiler 4	2.092

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**APPENDIX C – NSPS SUBPART III – RECIPROCATING INTERNAL
COMBUSTION ENGINES (RICE)**

<u>Building Number</u>	<u>Source Number</u>	<u>HP</u>
4201	4201-GEN0003	364
4208	4208-GEN0001	2,921
4220	4220-GEN0001	230
4221	4221-GEN0001	463
4250	4250-GEN0001	80.4
4464	4464-GEN0001	49
4487	4487-GEN0001	158
4583	4583-GEN0001	197
4601	4601-GEN0001	27.1
4602	4602-GEN0001	635
4610	4610-GEN0004	241
4611	4611-GEN0001	80
4650	4650-GEN0001	755
4651	4651-GEN0001	201
4666	4666-GEN0001	133
4674	4674-GEN0001	198
4708	4708-GEN0001	1,207
4711	4711-GEN0001	49
4755	4755-GEN0001	1,194
4765	4765-GEN0001	48.8
4778	4778-GEN0001	80

**APPENDIX D– MACT SUBPART ZZZZ – RECIPROCATING INTERNAL
COMBUSTION ENGINES (RICE)**

<u>Building Number</u>	<u>Source Number</u>	<u>HP</u>	<u>Fuel</u>
4200	4200-GEN0001	449	Diesel
4201	4201-GEN0002	140	Diesel
4203	4203-GEN0001	474	Diesel
4209	4209-GEN0001	764	Diesel
4249	4249-GEN0001	435	Diesel
4312	4312-GEN0001	169	Diesel
4436	4436-GEN0001	352	Diesel
4475	4475-GEN0001	750	Diesel
4476	4476-GEN0001	43.7	Diesel
4487	4487C-GEN0001	680	Diesel
4493	4493-GEN0001	660	Diesel
4600	4600-GEN0001	37.1	Diesel
4605	4605-GEN0001	87	Propane
4619	4619-GEN0001	160	Diesel
4629	4629-GEN0001	605	Diesel
4649	4649-GEN0001	221	Diesel
4649	4649-GEN0002	202	Diesel
4663	4463-GEN0001	765	Diesel
4663	4463-GEN0002	765	Diesel
4663	4463-GEN0003	1,106	Diesel
4663	4463-GEN0004	2,847	Diesel
4663	4663-GEN0005	2,520	Diesel
4667	4667-999-01	2,577	Diesel
4667	4667-999-02	2,577	Diesel
4667	4667-999-03	2,577	Diesel
4667	4667-999-04	2,577	Diesel
4667	4667-999-05	2,577	Diesel
4667	4667-999-06	2,577	Diesel
4667	4667-999-07	2,577	Diesel
4667	4667-999-08	2,577	Diesel
4667	4667-999-09	2,577	Diesel
4667	4667-999-10	2,577	Diesel
4667	4667-999-11	2,577	Diesel
4667	4667-999-12	2,577	Diesel
4667	4667-999-13	2,577	Diesel
4692	4692-GEN0001	65	Diesel
4707	4707-GEN0001	765	Diesel
4708	4708-GEN0002	1,199	Diesel
4718	4718-3-GEN0001	600	Diesel
4718	4718-GEN0002	880	Diesel
4723	T4728-GEN0001	12	Diesel

4755	4755-GEN0002	299	Diesel
4761	4761-GEN0001	109	Diesel

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