National Aeronautics and Space Administration
John F. Kennedy Space Center
Facility ID No. 0090051
Brevard County

Title V Air Operation Permit Revision

Permit No. 0090051-022-AV
(Revision of Title V Air Operation Permit No. 0090051-018-AV)

Permitting Authority:

State of Florida
Department of Environmental Protection
Air Resource Management, Central District

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DRAFT/PROPOSEDPERMIT

PERMITTEE:	Permit No. 0090051-022-AV
National Aeronautics and space Administration	John F. Kennedy Space Center
Mail Code AA-B	Facility ID No. 0090051
Kennedy Space Center, Florida 32889	Title V Air Operation Permit Revision

The purpose of this permit is to revise the Title V air operation permit for the above referenced facility. The John F. Kennedy Space Center is located in Brevard County at Kennedy Space Center, Florida. UTM Coordinates are: Zone 17, 532.4 km East and 3155 km North.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

Effective Date: TBD
Renewal Application Due Date: January 17, 2013
Expiration Date: August 30, 2013

(Draft/Proposed)

_____

Caroline D. Shine
Air Program Administrator

CDS/jr/sa/tla

Subsection A. Facility Description.

The National Aeronautics and Space Administration (NASA) operates the Kennedy Space Center facility. The facility is categorized under Standard Industrial Classification Code No. 96. The facility is located in Brevard County at Kennedy Space Center, Florida. The UTM coordinates of the existing facility are Zone 17, 534.2 km East, and 3155.0 km North. The Kennedy Space Center is a spacecraft and payload processing and launch facility which contains the following five categories of permitted air emission units:

a) Hot Water Generators/Boilers with an individual heat input of at least 10 MMBtu/hr (listed in Attachment 1-A)

b) Surface Coating Operations (listed in Attachment 2-A)

c) Internal Combustion Engines (listed in Attachments 3-A and Attachment 5-A)

d) Hypergol Fueling and Servicing Activities (listed in Attachment 6-A)

e) Portable Aggregate Material Crushing Operations

Subsection B. Summary of Emissions Units.

The existing facility consists of the following emissions units.

Facility ID No. 0090051

ID No.	Emission Unit Description (Regulated)
001	Hot Water Generators/Boilers with an individual heat input rate of 10 MMBtu/hr
086	Compression Ignition Stationary Internal Combustion Engines
087	Spark Ignition Stationary Internal Combustion Engines
088	Launch Complex 39 (LC-39) Compression Ignition Backup Power Plant
089	Hypergol Servicing Operations and Activities
091	Surface Coating Operations
092	Portable Aggregate Material Crushing Operations
ID No.	**Emission Unit Description (Unregulated)**
090	Fog Fluid (Special Effects) at Kennedy Space Center Visitor Complex

Subsection C. Applicable Regulations.

The facility is considered a Title V major source as the potential to emit (PTE) for the criteria pollutants carbon monoxide (CO) and oxides of nitrogen (NO,) exceed the 100 ton per year (tpy) Title V major source threshold. The facility is considered a minor source for volatile organic compounds (VOC) emissions as the VOC PTE is less than the 100 ton per year Title V major source threshold.

The facility is considered a minor source (i.e., non-major) for the Prevention of Significant Deterioration (PSD) permitting program as the PTE for PSD pollutants is less than the PSD major source threshold (e.g., 250 tpy for CO and NO,). The facility does not belong to one of the listed source categories that have a lesser PSD major source threshold.

The total combined heat input rating for fossil fuel fired boilers at the facility is approximately 200 million British Thermal Units per hour (MMBtuhr). This total rating includes permitted (i.e., significant) and unpermitted (i.e.,

insignificant or exempt) units. This total rating is less than 250 MMBtuhr, which is the threshold for one of the listed source categories that have a lesser PSD major source threshold (i.e., 100 tpy for criteria pollutants).

Based on the Title V air operation permit revision application received December 6, 2011, this facility is not a major source of hazardous air pollutants (HAPs). The facility previously was considered a major source of HAP; however, pollution prevention initiatives taken by the facility have allowed the facility to reduce HAP emissions to less than the major source thresholds of 10 tpy for individual HAP, and 25 tpy for combined HAPs.

The Title V facility does not include the retail gasoline storage and fueling operations performed on-site.

A summary of applicable regulations is shown in the following table.

Regulation	**EU No(s).**
40 CFR 60, Subpart A, NSPS General Provisions	-086 -087 -088
40 CFR 60, Subpart IIII, Stationary Compression Ignition (CI) Internal Combustion Engines	-086 -087 -088
40 CFR 60, Subpart JJJJ, Stationary Spark Ignition (SI) Internal Combustion Engines	-086 -087 -088
40 CFR 63, Subpart A, NESHAP General Provisions	001
40 CFR 63, Subpart JJJJJJ, Industrial, Commercial, and Institutional Boilers	001
State Rule Citations: 62-4, 62-210.200, 62-213, 62-252, 62-296.320, 62-296.406 (BACT), and 62-297.310	all

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee shall comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW2. Facility-Wide HAP Emissions Limitation. The maximum **facility-wide** combined HAP emissions are limited to less than 25.0 tons per any consecutive twelve months and any single HAP emission is limited to less than 10.0 tons per any consecutive twelve months, updated monthly. **These limits are accepted by the applicant to make the facility a synthetic minor for HAPs only.**
[Rule 62-210.300(2)(b)1.d., F.A.C.]

FW3. HAP Emissions Calculation. HAP emissions shall be calculated using the latest published version of appropriate EPA AP42 emission factors, other appropriate emission factors, or material balance. [Rules 62-4.160(1); FESOP 0090021-005-AF]

FW4. Not federally Enforceable. Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW5. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]

FW6. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]

FW7. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.
[Rule 62-296.320(4)(c), F.A.C.]

Annual Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements for additional details.

FW8. Annual Operating Report. The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rule 62-210.370(3), F.A.C.]

FW9. Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: http://www.dep.state.fl.us/air/emission/tvfee.htm. [Rule 62-213.205, F.A.C.]

FW10. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V permit was effective. [Rules 62-213.440(3)(a)2. & 3. and (3)(b), F.A.C.]

FW11. Prevention of Accidental Releases (Section 112(r) of CAA). If and when the facility becomes subject to 112(r), the permittee shall:

a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
b. Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68]

FW12. Recordkeeping for Insignificant Emission Units. Recordkeeping (VOC and HAP emissions) for the following insignificant emission units is required to provide reasonable assurance that such unit or activity, in combination with other units and activities proposed as insignificant, would not cause the facility to exceed any major source threshold(s) as defined in subparagraph 62-213.420(3)(c)1., F.A.C.

1) Surface Coating
a) Operations using only coatings containing less than 5.0 percent VOC or HAP by volume.
b) Paint and coating mixing operations, including air drying of empty cans and excess two- part epoxy paints or inorganic zinc convertible coatings prior to their disposal.

[Rules 62-4.070(3), 62-213.420(3)(n), and 62-213.430(6)(b), F.A.C.]

The specific conditions in this section apply to the following emissions unit(s):

EU No.	Brief Description
-001	Hot Water Generators / Boilers with an individual heat input rating of at least 10 MMBtu/hr. This emission unit is composed of fossil fuel fired hot water generators (HWGs) and boilers with an individual heat input rating of at least 10 MMBtu/hr. Attachment l-A is a list of the existing fossil fuel fired boilers comprising this emission unit.

Essential Potential to Emit (PTE) Parameters

A.1. Methods of Operation. Each emission unit is allowed to fire No. 2 fuel oil, diesel fuel, natural gas, propane (including liquefied propane), biodiesel;, jet fuel, and synthetically derived fuel (e.g. produced by the Fischer-Tropsch process) Synthetically derived fuels includes coal-to-liquids (CTL), gas-to-liquids (GTL, biomass-to-liquids) (BTL) and syngas (e.g. mixture of carbon monoxide and hydrogen) [Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), F.A.C.; and, Permit No. 0090051-018-AV.]

A.2. Hours of Operation. These emission units may operate continuously (8,760 hours/year. [Rule 62-210.200(PTE), F.A.C., Permit No. 0090051-018-AV]

A.3. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

Emission Limitations and Standards

A.4. Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). [Rule 62-296.320(b)1.]

Monitoring of Operations

A.5. Determination of Process Variables.

a. Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

b. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 42-297.3 10(5), F.A.C.]

Test Methods and Procedures

A.6. Emissions of PM, SO2, NOx, and CO shall be estimated utilizing either:

a. EPA's AP42 emission factors;

b. Manufacturer supplied emission factors;

c. Test data measured through the use of EPA Reference Test Methods (RTM); or,

d. An alternate method using generally accepted engineering techniques that is submitted to the FDEP for review. [Rule 424.070(1), F.A.C.]

A.7. Each unit shall demonstrate compliance with its visible emission limit in accordance with DEP Method 9 prior to permit expiration date if:

a. Burning gaseous fuel(s) in combination with any amount of liquid fuel(s) for 400 hours or more per year, or,

b. Burning only liquid fuel(s) for 400 hours or more per year

The test period shall be a minimum of 30 minutes or the length of the batch/cycle.

[Rules 42-297.40 1 (9)(c), 42-297.3 10(4)(a)2., 42-297.3 10(7)(a)4 .a,, F.A.C .]

A.8. At least 15 days prior to the date on which each formal compliance test is due to begin, the permittee shall provide written notification of the test to the air compliance section of this office. The notification must include the following information: the date, time and location of each test; the name and telephone number of the facility's contact person who will be responsible for coordinating the test; and the name, company, and telephone number of the person conducting the test. [Rule 42-297.3 10(7)(a)9, F.A.C.]

A.9. Testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 42-297.3 10(2) & (2) (b), F.A.C .]

A.10. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Recordkeeping and Reporting Requirements

A.11. Monthly Recordkeeping Requirement. In order to demonstrate compliance with Specific Conditions No. **A.1.** and **A.2,** the permittee shall maintain a log at the facility for a period of at least five (5) years from the date the data is recorded. The log, at a minimum, shall contain the following:

Monthly

a. Date (month/year);
b. Type of fuel used
c. Consecutive twelve-month total of each fuel combusted.

The monthly logs shall be completed by the end of the following month.

Note: A consecutive 12 months total is equal to the total for the month in question plus the totals for the eleven months previous to the month in question. A consecutive 12-months total treats each month of the year as the end of a 12-months period. A 12-months total is not a year-to-date total. Facilities or emission units that have not been operating for 12-months should retain 12-months totals using whatever number of months of data are available until such a time as a consecutive 12-months total can be maintained each month. [Rule 62-4.070(3), F.A.C.]

A.12. The permittee shall maintain a current copy of Attachment l-A at facility . The facility shall review the inventory contained in Attachment l-A annually in conjunction with the AOR preparation. This inventory shall be submitted to the FDEP for review at the specific request of FDEP. This updated copy shall

include the following information for equipment meeting this heat input capacity criterion (i.e., at least 10 MMBtu/hr):

a. The current inventory of operational HWGs and boilers;
b. Listing of HWGs and boilers removed during the prior five years;
c. For each HWG and boiler the;
1. Unique identifier (e.g., number);
2. Source location (e.g., building number);
3. Source description (e.g., manufacturer and model number);
4. Maximum heat input rating in units of MMBtu/hr;
5. Fuels the boiler is capable of firing;
4. Date of installation; and
7. Date of removal (if applicable).

A.13. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

Other Requirements

A.14. If a new HWG or boiler is installed at the facility that meets the criteria of units comprising EU 001 (i.e., at least 10 MMBtu I hr heat input capacity), the permittee shall submit to this office four copies of a construction permit application for the unit on the appropriate FDEP permit application forms. The permittee shall obtain a permit to construct the unit prior to the installation and operation of the unit.

A.15. After completion of construction of a new unit that is part of EU 001, the permittee shall update Attachment l-A. The permittee shall submit a copy of the updated Attachment 1 -A to this office within 40 days after completion of construction of the new unit. A Title V operating permit revision is not required upon completion of construction.

A.16. The permittee shall submit a current copy of Attachment l-A with Title V operating permit revision applications that address Emission Unit 001.

A.17. The permittee shall submit a current copy of Attachment l-A with each Title V operating permit renewal application.

The specific conditions in this section apply to the following emissions unit(s):

EU No.	Brief Description
-086	Compression Ignition Stationary Internal Combustion Engines used throughout the site, This emission unit includes two 1,000 kw engines installed under Construction Permit 0090051-019-AC and subject to 40 CFR 60, Subpart IIII. The permittee has provided information in the permit application that these units are exempt from the requirements of the Area Source Requirements of the National Emission Standard for Hazardous Air Pollutants (NESHAP) contained at 40 CFR Part 43, Subpart ZZZZ. For inventory tracking purposes, the compression ignition units are divided into two categories. The first category is for units that are required to be tracked as part of Emission Unit 086, as listed on Attachment 3-A to this permit. The power rating threshold for this inclusion is 480 kW. The second category includes units of less than 480 kW, which are not required to be tracked based on their individual maximum potential emissions being less than the construction permit requirement threshold.
-087	Spark Ignition Stationary Internal Combustion Engines used throughout the site. For inventory tracking purposes, the spark ignition units are divided into two categories. The first category is for units that are required to be tracked as part of Emission Unit 087, as listed on Attachment 4-A (currently all units are classified as insignificant) to this permit. The second category are not required to be tracked based on their individual maximum potential emissions being less than the construction permit requirement threshold.
-088	Launch Complex 39 (LC-39) Compression Ignition Backup Power Plant

Essential Potential to Emit (PTE) Parameters

B.1. Capacity. The annual (consecutive twelve months) fuel usage rates shall not exceed:

a. E. U. 086 - 305,000 gallons (based on diesel fuel)
b. E. U. 087 - 38,000 gallons (based on gasoline)
c. E. U. 088 - 170,000 gallons (based on diesel fuel)

Should alternate fuels be used in these units that are not the listed fuels in this condition, the total annual usage rates shall be based on a pro-rated basis that is based on the relative fuel heat content value of the alternate fuel.
[Rule 62-210.200(PTE), F.A.C. and Construction Permit No. 0090051-010-AC]

B.2. Hours of Operation.
a. E.U. 086 and 087 - Each unit is allowed to operate continuously
b. E.U . 088 - Total combined generator units operations shall not exceed 1,250 hours per consecutive twelve months.
c. E.U 086 - The engines subject to 40 CFR 60, Subpart IIII are authorized to operate 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 such units is limited to 100 hours per year.
d.E.U 086 - The engines subject to 40 CFR 60, Subpart IIII cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
[Rule 42-2 10.200, (PTE), F. A.C ., permit 0090051-019-AC, and Title V application received 12/6/12, 40 CFR 60.4211(e), and] 40 CFR 60.4219]

B.3. Methods of Operation. Each emission unit is allowed to fire No. 2 fuel oil, diesel fuel, biodiesel, jet fuel, and synthetically derived fuel (e.g. produced by the Fischer-Tropsch process) Synthetically derived fuels includes coal-to-liquids (CTL), gas-to-liquids (GTL, biomass-to-liquids) (BTL) and syngas (e.g. mixture of carbon monoxide and hydrogen) [Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), F.A.C.; and, Permit No. 0090051-018-AV.]

Emission Limitations and Standards

B.4. Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). [Rule 62-296.320(b)1., F.A.C.]

B.5. For compression ignition internal combustion engines manufactured after April 1, 2006 (July 1, 2006 for fire pumps), or modified or reconstructed after July 11, 2005, the individual engines are subject to the requirements of the New Source Performance Standard (NSPS) contained at 40 CFR Part 60, Subpart IIII – *Standards of Performance for Stationary Compression Internal Combustion Engines*. The following requirements apply to these units:

a) Each engine shall meet the emissions criteria as stated in the regulation. Compliance with this requirement can be through any one of the following methods. Any of these methods are presumed effective for the life of the engine (i.e., one-time requirements).

   i) Be certified by the engine manufacturer as meeting the standards;

   ii) Based on manufacturer supplied emission test results or emission factors; or,

   iii) Based on emission testing performed by the permittee.

b) Beginning October 1, 2010, subject engines using diesel fuel shall use fuel meeting the requirements the requirements of 40 CFR §80.510(b), summarized as follows:

   i) Maximum sulfur content of 15 ppm

   ii) Cetane index or aromatic content of

      i) A minimum cetane index of 40; or

      ii) A maximum aromatic content of 35 volume percent.

c) For subject engines classified as emergency stationary engines, the permittee shall install and operate a non-resettable engine hour meter.

d) For engines equipped with a diesel particulate filter, the permittee shall install and operate a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

B.6. For stationary park ignition internal combustion engines manufactured after July 1, 2008 for engines rated less than or equal to 25 hp and after January 1, 2009 for engines rated at greater than 25 hp, or engines modified or reconstructed after July 12, 2006, the individual engines are subject to the requirements of the New Source Performance Standard (NSPS) contained at 40 CFR 60, Subpart JJJJ – *Standards of*

Performance for Stationary spark Ignition Internal Combustion Engines. The following requirements apply to these units:

a) Each engine shall meet the emissions criteria as stated in this regulation. Compliance with this requirement can be through any one of the methods. Any of these three methods are presumed effective for the life of the engine (i.e., one-time requirement)

   i) Be certified by the engine manufacturer

   ii) Based on the manufacturer supplied emission test results or emission facets; or,

   iii) Based on the emission testing performed by the permittee.

b) Subject engines using gasoline fuel shall use fuel meeting the fuel sulfur limit contained in 40 CFR §80.195(a), which is summarized as a maximum of 80 ppm.

c) For the following subject engines that are used for emergency use only and do not meet the emission standards applicable to non-emergency engines; the permittee shall install a non-resettable hour meter.

   i) Greater than 500 hp and built on or after July 1, 2010;

   ii) Greater than or equal to 130 hp and less than 500 hp, and built on or after January 1, 2011; and
   iii) Less than 130 hp and built on or after July 1, 2008.

d) Engines used for emergency use are limited to 100 hours per year for operation for the purposes of maintenance checks and readiness testing. This 100 hour per year limit does not include the use of the engine in emergency situation. The permittee may request from the Department an additional 100 hours for a specific engine for other operation. This request will be made in accordance with the provisions of the NSPS.

e) The permittee shall maintain records of maintenance performed on subject engines.

B.7. Operation and Maintenance. For the engines subject to 40 CFR 60, Subpart IIII, the owner or operator must operate and maintain the stationary CI internal combustion engine according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you. [40 CFR 60.4211(a)]

Test Methods and Procedures

B.8. For the engines not subject to 40 CFR 60, Subpart IIII emissions of PM, SO2, NOx, and CO shall be estimated utilizing either:
a. EPA's AP42 emission factors;
b. Manufacturer supplied emission factors;
c. Test data measured through the use of EPA Reference Test Methods (RTM); or,
d. An alternate method using generally accepted engineering techniques that is submitted to the FDEP for review. [Rule 424.070(1), F.A.C.]

Each unit shall demonstrate compliance with its visible emission limit in accordance with DEP Method 9 prior to permit expiration date if:
a) Burning gaseous fuel(s) in combination with any amount of liquid fuel(s) for 400 hours or more per year, or,
b) Burning only liquid fuel(s) for 400 hours or more per year
The test period shall be a minimum of 30 minutes or the length of the batch/cycle.
[Rules 42-297.40 1 (9)(c), 42-297.3 10(4)(a)2., 42-297.3 10(7)(a)4 .a,, F.A.C .]

B.9. At least 15 days prior to the date on which each formal compliance test is due to begin, the permittee shall provide written notification of the test to the air compliance section of this office. The notification must include the following information: the date, time and location of each test; the name and telephone number of the facility's contact person who will be responsible for coordinating the test; and the name, company, and telephone number of the person conducting the test. [Rule 42-297.3 10(7)(a)9, F.A.C.]

B.10. Testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 42-297.3 10(2) & (2) (b), F.A.C .]

B.11. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units when burning:
a. only gaseous fuel(s); or
b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year, or
c. only liquid fuel(s) for less than 400 hours per year.
[Rule 42-297.3 10(7)(a)4 ., F.A.C .]

Monitoring of Operations

B.12. Determination of Process Variables.
a. Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
b. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 42-297.3 10(5), F.A.C.]

Compliance

B.13. Compliance Requirements. For the engines subject to 40 CFR 60, Subpart IIII, the permittee has indicated that compliance for these engines is demonstrated by the engines being certified according to 40 CFR Part 89 or Part 94, as applicable, for the same model year and maximum engine power. [40 CFR 60.4211(b)]

Recordkeeping Requirements

B.14. Monthly Recordkeeping Requirement. In order to demonstrate compliance with Specific Conditions No. **B.1., B.2.** and **B.3,** the permittee shall maintain a log at the facility for a period of at least five (5) years from the date the data is recorded. The log, at a minimum, shall contain the following:

Monthly
a. Date (month/year);
b. Type of fuel used;
c. Consecutive twelve-month total of each fuel combusted; and
d. Consecutive twelve-month total of hours of operation for EU 088 only.
The monthly logs shall be completed by the end of the following month.

Note: A consecutive 12 months total is equal to the total for the month in question plus the totals for the eleven months previous to the month in question. A consecutive 12-months total treats each month of the year as the end of a 12-months period. A 12-months total is not a year-to-date total. Facilities or emission units that have not been operating for 12-months should retain 12-months totals using whatever number of months of data are available until such a time as a consecutive 12-months total can be maintained each month. [Rule 62-4.070(3), F.A.C.]

B.15. The permittee shall maintain a current copy of Attachment 3-A and Attachment 5-A at facility . The facility shall review the inventory contained in Attachment 3-A and Attachment 5-A annually in conjunction with the AOR preparation. This inventory shall be submitted to the FDEP for review at the specific request of FDEP.

B.16. Record Retention.
a. The owner or operator must keep records in a suitable and readily available form for expeditious reviews.
b. The owner or operator must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.[40 CFR 63.6660 and 40 CFR 63.10(b)(1)]

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B.17. For new internal combustion engines installed at the facility that meet the criteria of units required to be listed in Attachment 3-A and Attachment 5-A (i.e., exceeds the rating thresholds of 480 kilowatts and 34 kilowatts), the Permittee shall submit to this Office four copes of a construction permit application for the unit on the appropriate FDEP permit application forms (e .g., FDEP Form No. 42-2 10.900(1)). The permittee shall obtain a permit to construct the unit prior to the installation and operation of the unit.

B.18. The permittee shall submit a current copy of Attachment 3-A with Title V operating permit revision applications that address Emission Unit 086.

B.19. The permittee shall submit a current copy of Attachment 5-A with Title V operating permit revision applications that address Emission Unit 088.

B.20. The permittee shall submit current copies of Attachment 3-A and Attachment 5-A with each Title V operating permit renewal application.

Subsection C. The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
-091	This emission unit is comprised of surface coating operations performed in paint booths or similar structures located at the facility.

C.1. Attachment 2-A is a list of the existing operations that comprise this unit. As required in Condition No. **C.9.**, the permittee shall maintain and update a copy of Attachment 2-A at the facility. This updated copy shall include the following information for equipment comprising this Emission Unit:

a. The current inventory of operational paint booths and similar structures comprising this emission unit;

b. Listing of paint booths and similar structures removed from this emission unit during the prior five years;

c. For each paint booth or similar structure, the;

1. Unique identifier (e.g., number);
2. Source location (e.g., building number);
3. Source description (e.g., Corrosion Control Booth Number 1);
4. Manufacturer and model number (if applicable);
5. Type of particulate matter control (e.g., filters or water wall);
4. Date of installation (if installed after June 2008); and
7. Date of removal (if applicable, and if removed after June 2008).

C.2. Hours of Operation. Each unit is allowed to operate continuously. [Rule 42-2 10.200, (PTE), F. A.C .]

Emission Limitations and Standards

C.3. The permitted VOC emission rate from Emission Unit 091 is limited to less than 69.0 tons per year per consecutive twelve months, including the emissions from the air drying of empty cans and excess two-part epoxy paints prior to their disposal. Usage or purchasing records shall be maintained as provided in Specific Condition No. C.6. [Rule 62-296.320(b)1.]

C.4. The combined HAP emission rate from EU 091 is limited to less than 20.0 tons per any consecutive twelve months and single HAP emissions are limited to less than 8.0 tons per any consecutive twelve months, updated monthly. Usage or purchasing records shall be maintained as provided in Specific Condition No. **C.6.**

C.5. Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). [Rule 62-296.320(b)1.]

Recordkeeping and Reporting Requirements

C.6. Emissions of VOC and HAP from this emission unit shall be estimated monthly utilizing any one or combination of the following methods:

a. Material balance approach based on either:
1. Purchase data; or
2. Usage data;

b. VOC and HAP content as obtained from any of the following methods:
1. MSDS;
2. Manufacturer data (e.g., certified product data sheet);

3. As analytically measured using generally accepted methods; or,
4. Using default values (e.g., 7.38 lbs/gallon VOC) for low use materials.

c. An alternate method using generally accepted engineering techniques that is submitted to the FDEP for review.

Monthly logs shall be completed by the end of the following month. The logs and supporting documents shall be maintained at the facility for at least 5 years and made available to the Department upon request. [Rule 424.070(1), F.A.C.]

C.7. Monthly Recordkeeping Requirement. In order to demonstrate compliance with Specific Conditions No. **C.3.** and **C.4,** the permittee shall maintain a log at the facility for a period of at least five (5) years from the date the data is recorded. The log, at a minimum, shall contain the following:

Monthly

a. Date (month/year);
b. Consecutive twelve-month total of VOC emissions
c. Consecutive twelve-month total of total HAP emissions and;
d. Consecutive twelve-month total of individual HAP emissions for each individual HAP with emissions of at least 0.5 tons during the current twelve-month period.

The monthly logs shall be completed by the end of the following month.

Note: A consecutive 12 months total is equal to the total for the month in question plus the totals for the eleven months previous to the month in question. A consecutive 12-months total treats each month of the year as the end of a 12-months period. A 12-months total is not a year-to-date total. Facilities or emission units that have not been operating for 12-months should retain 12-months totals using whatever number of months of data are available until such a time as a consecutive 12-months total can be maintained each month. [Rule 62-4.070(3), F.A.C.]

Logs must document the method, calculations, and formulas used in determining the usage rate and the emission rate. This includes, but is not limited to, the product name, density, individual and total HAP contents, and individual and total VOC content. All calculations, including those used to derive emission credits for mass balance, must be clearly documented and may be presented in the form of a template of sample calculations, which is filed with the logs required in this specific condition and available for review on site by regulatory inspectors. [Rule 424.070(3), F.A.C.]

C.8. The permittee shall maintain a current copy of Attachment 2-A, at facility . The facility shall review the inventory contained in Attachment 2-A annually in conjunction with the AOR preparation. This inventory shall be submitted to the FDEP for review at the specific request of FDEP.

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C.9. If a new paint booth or similar structure is installed at the facility that meets the criteria of units comprising EU 091, the permittee shall submit to this office four copes of a construction permit application for the unit on the appropriate FDEP permit application forms (e.g., FDEP Form No. 42-210.900(1)). The permittee shall obtain a permit to construct the unit prior to the installation and operation of the unit.

C.10. After completion of construction of a new unit that is part of EU 091, the permittee shall update Attachment 2-A. The permittee shall submit a copy of the updated Attachment 2-A to this office within 60 days after completion of construction of the new unit. A Title V operating permit revision is not required upon completion of construction.

C.11. The permittee shall submit a current copy of Attachment 2-A with Title V operating permit revision applications that address Emission Unit 091.

C.12. The permittee shall submit a current copy of Attachment 2-A with each Title V operating permit renewal application.

Subsection D. The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
-089	This emission unit is comprised of hypergol servicing operations and activities. These operations include fueling operations, purging, fume hoods and scrubbers located at the facility.

D.1. Attachment 6-A is a list of the existing operations that comprise this unit. As required in Condition No. **D.4**., the permittee shall maintain and update a copy of Attachment 6-A at the facility. This updated copy shall include the following information for equipment comprising this Emission Unit:

a. The current inventory of operations and activities comprising this emission unit;
b. Listing of operations and activities removed from this emission unit during the prior five years;
c. For each operations and activity, the;
1. Unique identifier (e.g., number);
2. Source location (e.g., building number);
3. Source description (e.g., manufacturer and model number);

D.2. Hours of Operation. Each unit is allowed to operate continuously.

Emission Limitations and Standards

D.3. Visible Emissions. The visible emission limitation for hypergol servicing operations and activities shall be one hundred (100) percent opacity.

{Permitting Note: Given the 100 percent VE limit for this emission unit, compliance is inherent. Hence periodic VE testing is not required}

Recordkeeping and Reporting Requirements

D.4. The permittee shall maintain a current copy of Attachment 6-A, at facility . The facility shall review the inventory contained in Attachment 6-A annually in conjunction with the AOR preparation. This inventory shall be submitted to the FDEP for review at the specific request of FDEP.

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D.5. Construction permits are not required for the installation and operation of hypergol servicing operations and activities such as fueling operations, purging, and fume hoods. See Condition numbers **D.4, D.8,** and **D.9.** for recordkeeping requirements associated with the installation and operations of new hypergol servicing operations and activities.

D.6. For the installation and operation of a new hypergol scrubbing system, the permittee shall submit to this office four copes of a construction permit application for the unit on the appropriate FDEP permit application forms (e.g., FDEP Form No. 42-210.900(1)). The permittee shall obtain a permit to construct the unit prior to the installation and operation of the unit.

D.7. After completion of construction of a new scrubber that is part of EU 089, the permittee shall update Attachment 6-A. The permittee shall submit a copy of the updated Attachment 6-A to this office within 60 days after completion of construction of the new unit. A Title V operating permit revision is not required upon completion of construction.

D.8. The permittee shall submit a current copy of Attachment 6-A with Title V operating permit revision applications that address Emission Unit 091.

D.9. The permittee shall submit a current copy of Attachment 6-A with each Title V operating permit renewal application.

Subsection E. The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
-092	This emission unit provides for the operation of a portable material crushing operation. This portable material crushing operation will be used to recycle a variety of construction materials (e.g., concrete and porcelain plumbing fixtures such as sinks and toilets).

E.1. General Recordkeeping Requirements - The permittee shall keep records for each crushing system operated on site as follows:

a. Owner Name;

b. General and Title V Air Operation Permit number(s) (e.g., 7771234-XXX-AX) and permit effective date(s);

c. Latest arrival date on site;

d. Manufacturer's maximum rated capacity for any material; and

e. Date of most recent visible emissions (VE) test and a copy of the test report. The test report shall include the permitted capacity of the crusher and the actual operating rate of the crusher.

[Rule 62-4.070(3), F.A.C.]

E.2. Hours of Operation. Each unit is allowed to operate continuously. [Rule 42-2 10.200, (PTE), F. A.C .]

E.3. Visible Emission (VE) Limitation: Visible emissions from any crusher, grinding mill, screening operation, bucket elevator, transfer point on belt conveyors, bagging operation, storage bin, enclosed truck or railcar loading station, or any other emission point not subject to 40 CFR 60, Subpart OOO, shall be less than 20 percent opacity.
[Rule 62-296.320(4)(b)1., F.A.C.]

E.4. Additional VE Limitations: Visible emissions from any crusher, grinding mill, screening operation, bucket elevator, transfer point on belt conveyors, bagging operation, storage bin, enclosed truck or railcar loading station, or any other emission point subject to 40 CFR 60, Subpart OOO, shall comply with the following opacity limits:

Pollutant	With Capture System (opacity)	Without Capture System (opacity)
VE	10 percent	15 percent

[40 CFR 60 Subpart OOO and adopted by reference in Rule 62-204.800(8)(b), F.A.C.]

E.5. Unconfined Emissions of Particulate Matter: Unconfined emissions shall be controlled by using a water suppression system with spray bars located wherever unconfined emissions occur at the feeder, the entrance and exit of the crusher, screen, and the conveyor drop points.
[Rule 62-296.320(4)(c), F.A.C.]

E.6. Test Reports: If the Department requests to see a recent valid emission test report (does not have to be tested at the site) for a crusher, the test report shall be submitted to the Department no later than 14 days from the date requested by the Department.
[Rule 62-4.070(3), F.A.C.]

SECTION IV. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Attachments 1-A, 2-A, 3-A, 5-A, and 6-A
Appendix NESHAP, Subpart A – General Provisions.
Appendix NESHAP, Subpart JJJJJJ - Industrial, Commercial, and Institutional Boilers.
Appendix NSPS, Subpart A – General Provisions.
Appendix NSPS, Subpart IIII - Stationary Compression Ignition (CI) Internal Combustion Engines.
Appendix NSPS, Subpart JJJJ, Stationary Spark Ignition (SI) Internal Combustion Engines
Appendix NSPS, Subpart OOO, Nonmetallic Mineral Processing Plants
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.
Appendix U, List of Unregulated Emission Units and/or Activities