



ALTIVIA Institute Facilities
250 Carbide Road
Dunbar, WV 25064

February 28, 2020

West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Attn: Laura M. Crowder, Director

Re: ALTIVIA Institute Facilities Emergency Services Title V Permit Renewal Application

Permit Number: R30-03900005 Plant ID No: 039-00005

Dear Director:

Permit R30-03900005 expires on September 1, 2020, ALTIVIA is submitting the attached application requesting that the Division of Air Quality renew the permit.

Please assign ALTIVIA Services, LLC (Infrastructure Operations Sector) as the Owner and Operator of this permit.

If you have any questions concerning this matter, contact Jason Patrick at 1019 Haverhill-Ohio Furnace Road PO Box 180, Haverhill, OH 45636, Phone (740)533-5267, Email: jpatrick@altivia.com.

Regards,

A handwritten signature in blue ink that reads 'Jason Patrick'.

Jason Patrick
ESH&S Manager

cc: T. Albert
A. Lewis

| | | |
|--------------------------------------|-------------------|------------|
| 11. Mailing Address | | |
| Street or P.O. Box: 250 Carbide Road | | |
| City: Dunbar | State: WV | Zip: 25064 |
| Telephone Number: (304) 759-1299 | Fax Number: () - | |

| | | |
|---|---|---|
| 12. Facility Location | | |
| Street: 250 Carbide Road | City: Dunbar | County: Kanawha |
| UTM Easting: 432.0 km | UTM Northing: 4,248.310 km | Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18 |
| Directions: Adjacent to Route 25, west of Institute, WV. | | |
| Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| Is facility located within a nonattainment area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If yes, for what air pollutants? | |
| Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | If yes, name the affected state(s). Ohio Kentucky | |
| Is facility located within 100 km of a Class I Area ¹ ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If yes, name the area(s). | |
| If no, do emissions impact a Class I Area ¹ ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| ¹ Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia. | | |

| | | |
|--|--------------------------|--|
| 13. Contact Information | | |
| Responsible Official: Tim Albert | | Title: Vice President - Manufacturing |
| Street or P.O. Box: 1019 Haverhill-Ohio Furnace Rd. | | |
| City: Haverhill | State: OH | Zip: 45636 |
| Telephone Number: (740) 533-5200 | Fax Number: () - | |
| E-mail address: talbert@altivia.com | | |
| Environmental Contact: Jason Patrick | | Title: EHS Manager |
| Street or P.O. Box: 1019 Haverhill-Ohio Furnace Rd. | | |
| City: Haverhill | State: OH | Zip: 45636 |
| Telephone Number: (740) 533-5267 | Fax Number: () - | |
| E-mail address: jpatrick@altivia.com | | |
| Application Preparer: Jason Patrick | | Title: EHS Manager |
| Company: ALTIVIA | | |
| Street or P.O. Box: 1019 Haverhill-Ohio Furnace Rd. | | |
| City: Haverhill | State: OH | Zip: 45636 |
| Telephone Number: (740) 533-5267 | Fax Number: () - | |
| E-mail address: jpatrick@altivia.com | | |

14. Facility Description

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

| Process | Products | NAICS | SIC |
|------------------------|----------------------|--------|------|
| Site Emergency Systems | Emergency Operations | 325199 | 2869 |

Provide a general description of operations.

Emergency Systems

The site has backup generators to operate in the event of power losses, equipment failures or site emergencies. These systems include river water fire pumps, backup generator at Site Emergency Operations Center and waste water treatment process sewer pumps.

- 15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.
- 16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."
- 17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

Section 2: Applicable Requirements

| 18. Applicable Requirements Summary | |
|--|--|
| Instructions: Mark all applicable requirements. | |
| <input type="checkbox"/> SIP | <input type="checkbox"/> FIP |
| <input checked="" type="checkbox"/> Minor source NSR (45CSR13) | <input type="checkbox"/> PSD (45CSR14) |
| <input checked="" type="checkbox"/> NESHAP (45CSR34) | <input type="checkbox"/> Nonattainment NSR (45CSR19) |
| <input checked="" type="checkbox"/> Section 111 NSPS | <input checked="" type="checkbox"/> Section 112(d) MACT standards |
| <input type="checkbox"/> Section 112(g) Case-by-case MACT | <input type="checkbox"/> 112(r) RMP |
| <input type="checkbox"/> Section 112(i) Early reduction of HAP | <input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e) |
| <input type="checkbox"/> Section 129 Standards/Reqts. | <input type="checkbox"/> Stratospheric ozone (Title VI) |
| <input type="checkbox"/> Tank vessel reqt., section 183(f) | <input type="checkbox"/> Emissions cap 45CSR§30-2.6.1 |
| <input type="checkbox"/> NAAQS, increments or visibility (temp. sources) | <input type="checkbox"/> 45CSR27 State enforceable only rule |
| <input checked="" type="checkbox"/> 45CSR4 State enforceable only rule | <input type="checkbox"/> Acid Rain (Title IV, 45CSR33) |
| <input type="checkbox"/> Emissions Trading and Banking (45CSR28) | <input type="checkbox"/> Compliance Assurance Monitoring (40CFR64) |
| <input type="checkbox"/> CAIR NO _x Annual Trading Program (45CSR39) | <input type="checkbox"/> CAIR NO _x Ozone Season Trading Program (45CSR40) |
| <input type="checkbox"/> CAIR SO ₂ Trading Program (45CSR41) | |

| 19. Non Applicability Determinations |
|---|
| <p>List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.</p> <p>SIP/FIP NESHAP Section 111 NSPS – No NSPS standards are applicable Section 112(g) case-by-case MACT Section 112(i) – Early HAP reduction Section 129 – Facilities do not own a solid waste incinerator Section 183(f) – Any tank vessels per section 183(f) are not included NAAQs – Facilities are a permanent source. 45CSR28 – No emissions are banked or traded. 45CSR14 – Facility has no PSD permits. 45CSR19 – Renewal does not trigger thresholds. 112(r) RMP – Not an RMP facility. Section 183 (e) – No 183e listed consumer or commercial products produced. Stratospheric ozone (Title VI) – renewal does not involve any regulated pollutant.</p> |
| <input checked="" type="checkbox"/> Permit Shield |

19. Non Applicability Determinations (Continued) - Attach additional pages as necessary.

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

Emission Cap 45CSR section 30-2.6.1 – Facilities have no emission cap agreement.

45CSR27 – Facilities do not have TAP emissions.

45CSR33 – Facilities are not subject to Acid Rain provisions.

40CFR64 – Monitoring requirements have already been established.

45CSR26 - Emissions units in this permit not subject to NOx Budget Trading.

Permit Shield

20. Facility-Wide Applicable Requirements

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements).

Open Burning 45CSR§6-3.1
Asbestos 40 C.F.R. §61.145(b) and 45CSR34
Odor 45CSR§4-3.1 State-Enforceable only
Standby plan for reducing emissions 45CSR§11-5.2
Emission Inventory – WV Code 22-5-4(a)(14)
Ozone-depleting substances 40 CFR Part 82, Subpart F
Operating permit requirement 45CSR30

Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Monitoring – N/A
Testing – WV Code §§ 22-5-4(a)(14-15) and 45CSR13

Recordkeeping Requirements

Monitoring information 45CSR§30-5.1.c.2.A
Retention of records 45CSR§30-5.1.c.2.B
Odors 45CSR§30-5.1.c. State-Enforceable only

Reporting Requirements

Responsible official 45CSR§§30-4, 5.1.c.3.D, and 45CSR§30-5.1.c.3.E
Certified emissions statement 45CSR§30-8
Compliance certification 45CSR§30-5.3.e
Semi-annual monitoring reports 45CSR§30-5.1.c.3.A
Emergencies 45CSR§30-5.7
Deviations 45CSR§30-5.1.c.3.C, 45CSR§30-5.1.c.3.B
New applicable requirements 45CSR§30-4.3.h.1.B

Are you in compliance with all facility-wide applicable requirements? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

| 21. Active Permits/Consent Orders | | |
|-----------------------------------|--------------------------------|--|
| Permit or Consent Order Number | Date of Issuance MM/DD/YYYY | List any Permit Determinations that Affect the Permit <i>(if any)</i> |
| R30-03900005-2015 (Group 6 of 7) | 09/01/2015 | N/A |
| G60-C023A | / / | N/A |
| G60-C054A | / / | N/A |
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22. Inactive Permits/Obsolete Permit Conditions

| Permit Number | Date of Issuance | Permit Condition Number |
|---------------|------------------|-------------------------|
| N/A | N/A | N/A |
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Section 3: Facility-Wide Emissions

| 23. Facility-Wide Emissions Summary [Tons per Year] | |
|--|---------------------|
| Criteria Pollutants | Potential Emissions |
| Carbon Monoxide (CO) | 1.4 |
| Nitrogen Oxides (NO _x) | 6.2 |
| Particulate Matter (PM _{2.5}) ¹ | 0.006 |
| Particulate Matter (PM ₁₀) ¹ | 0.22 |
| Total Particulate Matter (TSP) | 0.96 |
| Sulfur Dioxide (SO ₂) | 0.25 |
| Volatile Organic Compounds (VOC) | 0.25 |
| Hazardous Air Pollutants ² | Potential Emissions |
| Total HAPs | < 0.1 |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions |
| | |
| | |
| | |
| | |

¹PM_{2.5} and PM₁₀ are components of TSP.
²For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

Section 4: Insignificant Activities

| 24. Insignificant Activities (Check all that apply) | |
|--|---|
| <input checked="" type="checkbox"/> | 1. Air compressors and pneumatically operated equipment, including hand tools. |
| <input checked="" type="checkbox"/> | 2. Air contaminant detectors or recorders, combustion controllers or shutoffs. |
| <input checked="" type="checkbox"/> | 3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment. |
| <input checked="" type="checkbox"/> | 4. Bathroom/toilet vent emissions. |
| <input checked="" type="checkbox"/> | 5. Batteries and battery charging stations, except at battery manufacturing plants. |
| <input checked="" type="checkbox"/> | 6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description. |
| <input type="checkbox"/> | 7. Blacksmith forges. |
| <input checked="" type="checkbox"/> | 8. Boiler water treatment operations, not including cooling towers. |
| <input checked="" type="checkbox"/> | 9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source. |
| <input type="checkbox"/> | 10. CO ₂ lasers, used only on metals and other materials which do not emit HAP in the process. |
| <input type="checkbox"/> | 11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources. |
| <input type="checkbox"/> | 12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel. |
| <input type="checkbox"/> | 13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment. |
| <input type="checkbox"/> | 14. Demineralized water tanks and demineralizer vents. |
| <input checked="" type="checkbox"/> | 15. Drop hammers or hydraulic presses for forging or metalworking. |
| <input checked="" type="checkbox"/> | 16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam. |
| <input type="checkbox"/> | 17. Emergency (backup) electrical generators at residential locations. |
| <input checked="" type="checkbox"/> | 18. Emergency road flares. |
| <input type="checkbox"/> | 19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO _x , SO ₂ , VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis: _____ _____ _____ _____ _____ _____ _____ _____ _____ |

| 24. Insignificant Activities (Check all that apply) | |
|--|--|
| <input type="checkbox"/> | <p>20. Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> |
| <input type="checkbox"/> | 21. Environmental chambers not using hazardous air pollutant (HAP) gases. |
| <input checked="" type="checkbox"/> | 22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption. |
| <input type="checkbox"/> | 23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment. |
| <input checked="" type="checkbox"/> | 24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis. |
| <input checked="" type="checkbox"/> | 25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP. |
| <input checked="" type="checkbox"/> | 26. Fire suppression systems. |
| <input checked="" type="checkbox"/> | 27. Firefighting equipment and the equipment used to train firefighters. |
| <input type="checkbox"/> | 28. Flares used solely to indicate danger to the public. |
| <input checked="" type="checkbox"/> | 29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted. |
| <input checked="" type="checkbox"/> | 30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation. |
| <input checked="" type="checkbox"/> | 31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic. |
| <input type="checkbox"/> | 32. Humidity chambers. |
| <input checked="" type="checkbox"/> | 33. Hydraulic and hydrostatic testing equipment. |
| <input type="checkbox"/> | 34. Indoor or outdoor kerosene heaters. |
| <input checked="" type="checkbox"/> | 35. Internal combustion engines used for landscaping purposes. |
| <input type="checkbox"/> | 36. Laser trimmers using dust collection to prevent fugitive emissions. |
| <input type="checkbox"/> | 37. Laundry activities, except for dry-cleaning and steam boilers. |
| <input type="checkbox"/> | 38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities. |
| <input checked="" type="checkbox"/> | 39. Oxygen scavenging (de-aeration) of water. |
| <input type="checkbox"/> | 40. Ozone generators. |

| 24. Insignificant Activities (Check all that apply) | |
|--|--|
| <input checked="" type="checkbox"/> | 41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.) |
| <input checked="" type="checkbox"/> | 42. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device. |
| <input checked="" type="checkbox"/> | 43. Process water filtration systems and demineralizers. |
| <input checked="" type="checkbox"/> | 44. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification. |
| <input checked="" type="checkbox"/> | 45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified. |
| <input checked="" type="checkbox"/> | 46. Routing calibration and maintenance of laboratory equipment or other analytical instruments. |
| <input type="checkbox"/> | 47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers. |
| <input type="checkbox"/> | 48. Shock chambers. |
| <input type="checkbox"/> | 49. Solar simulators. |
| <input type="checkbox"/> | 50. Space heaters operating by direct heat transfer. |
| <input type="checkbox"/> | 51. Steam cleaning operations. |
| <input checked="" type="checkbox"/> | 52. Steam leaks. |
| <input type="checkbox"/> | 53. Steam sterilizers. |
| <input checked="" type="checkbox"/> | 54. Steam vents and safety relief valves. |
| <input checked="" type="checkbox"/> | 55. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized. |
| <input checked="" type="checkbox"/> | 56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list. |
| <input type="checkbox"/> | 57. Such other sources or activities as the Director may determine. |
| <input type="checkbox"/> | 58. Tobacco smoking rooms and areas. |
| <input checked="" type="checkbox"/> | 59. Vents from continuous emissions monitors and other analyzers. |

Section 5: Emission Units, Control Devices, and Emission Points

| |
|---|
| 25. Equipment Table |
| Fill out the Title V Equipment Table and provide it as ATTACHMENT D . |
| 26. Emission Units |
| For each emission unit listed in the Title V Equipment Table , fill out and provide an Emission Unit Form as ATTACHMENT E . |
| For each emission unit not in compliance with an applicable requirement, fill out a Schedule of Compliance Form as ATTACHMENT F . |
| 27. Control Devices |
| For each control device listed in the Title V Equipment Table , fill out and provide an Air Pollution Control Device Form as ATTACHMENT G . |
| For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the Compliance Assurance Monitoring (CAM) Form(s) for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as ATTACHMENT H . |

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

*Note: This Certification must be signed by a responsible official. The **original**, signed in **blue ink**, must be submitted with the application. Applications without an **original** signed certification will be considered as incomplete.*

a. Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

b. Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

Responsible official (type or print)

Name: Tim Albert

Title: 02/27/2020

Responsible official's signature:

Signature:

Signature Date:

2/27/2020

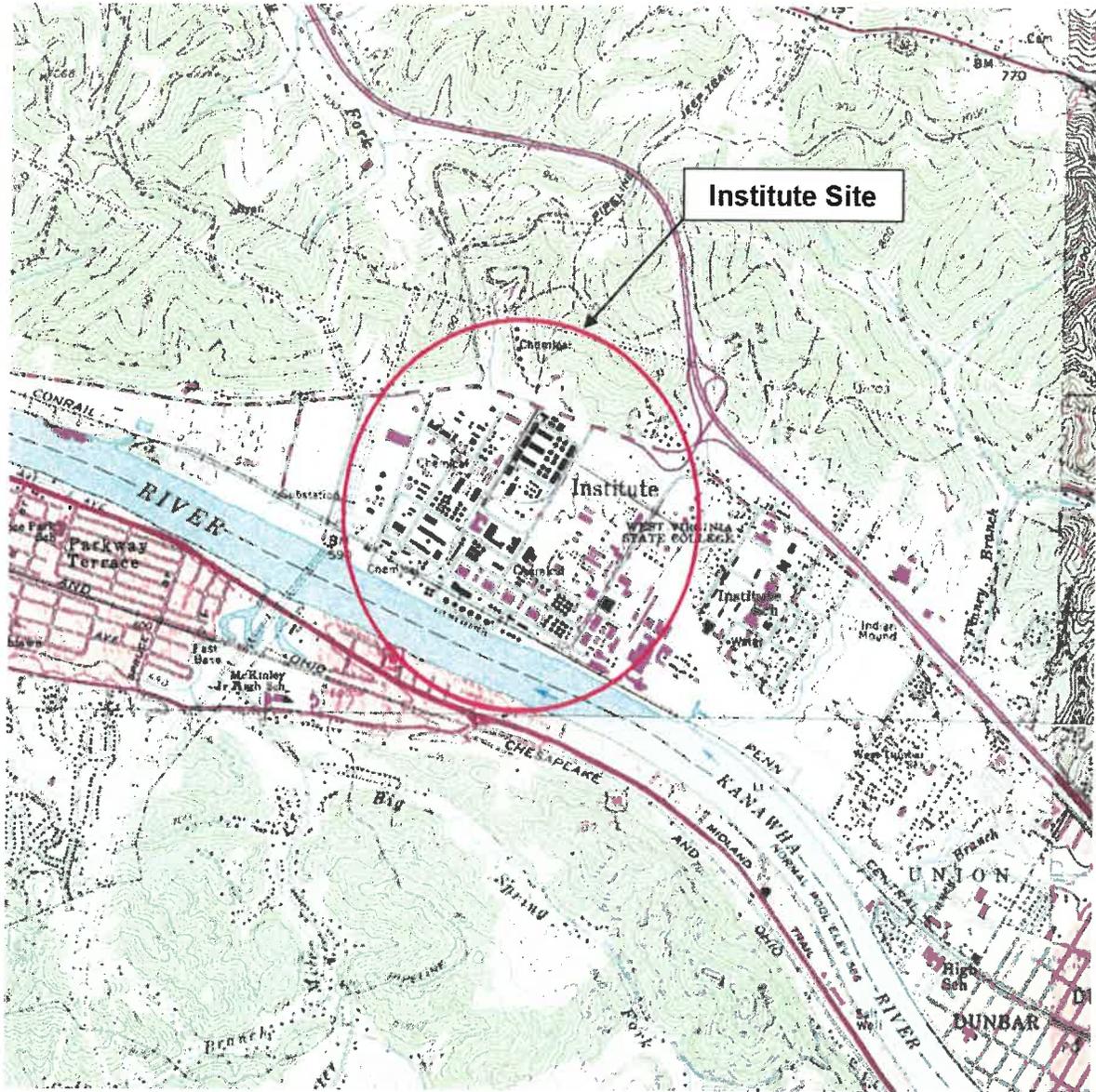
(Must be signed and dated in blue ink)

Note: Please check all applicable attachments included with this permit application:

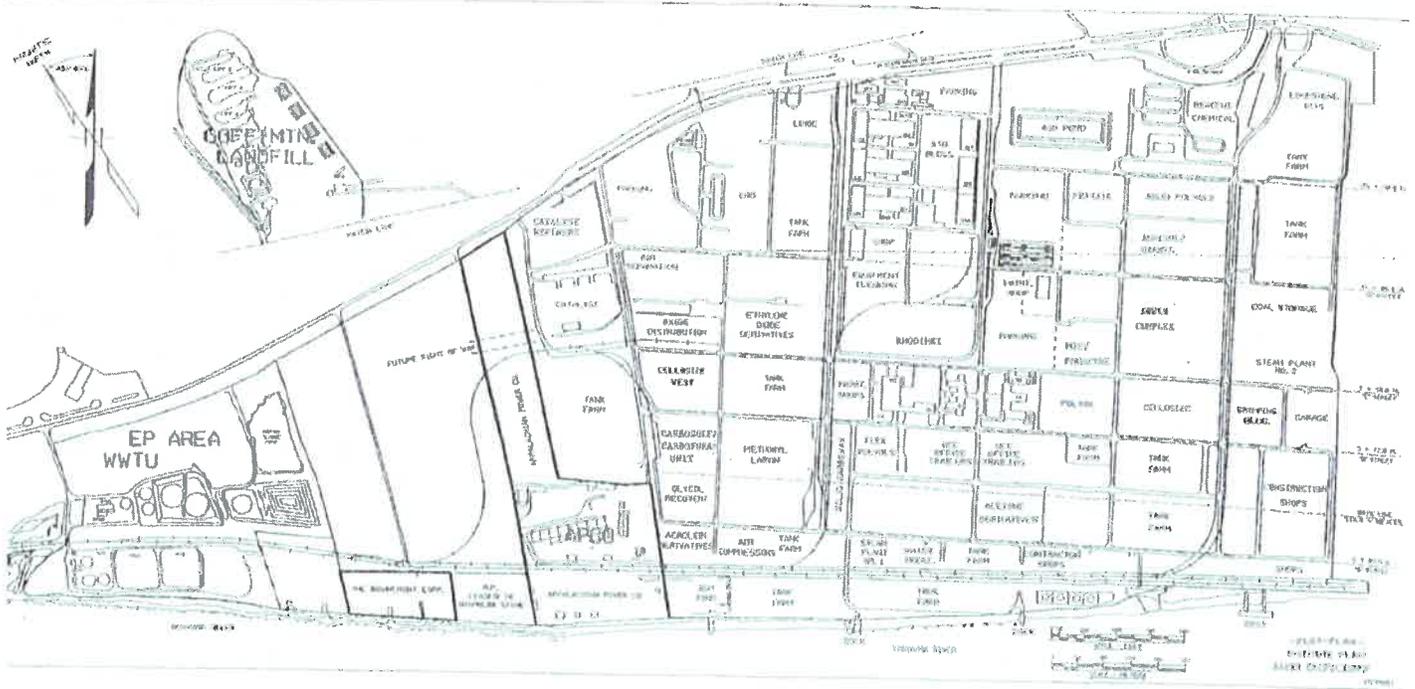
- | | |
|-------------------------------------|---|
| <input checked="" type="checkbox"/> | ATTACHMENT A: Area Map |
| <input checked="" type="checkbox"/> | ATTACHMENT B: Plot Plan(s) |
| <input type="checkbox"/> | ATTACHMENT C: Process Flow Diagram(s) |
| <input checked="" type="checkbox"/> | ATTACHMENT D: Equipment Table |
| <input checked="" type="checkbox"/> | ATTACHMENT E: Emission Unit Form(s) |
| <input type="checkbox"/> | ATTACHMENT F: Schedule of Compliance Form(s) |
| <input type="checkbox"/> | ATTACHMENT G: Air Pollution Control Device Form(s) |
| <input type="checkbox"/> | ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s) |

All of the required forms and additional information can be found and downloaded from, the DEP website at www.dep.wv.gov/daq, requested by phone (304) 926-0475, and/or obtained through the mail.

Attachment A Area Map



Attachment E - Plot Plan



ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

| Emission Point ID ¹ | Control Device ¹ | Emission Unit ID ¹ | Emission Unit Description | Design Capacity | Year Installed/Modified |
|--------------------------------|-----------------------------|-------------------------------|--|---|-------------------------|
| EG-1 | N/A | EG-1 | Incident Command Center – Emergency Generator Cummins, Inc. Model QSM11-G4 | 470 bhp/1,800 rpm CI 1.8 liters/cylinder displacement Diesel Fuel | 2010 |
| E-TEG | N/A | T-EG | EG-1 Fuel Tank | 550 gallons | 2010 |
| E-302 | N/A | P-302 | #2 Fire Water Pump | 3,000 gpm @ 420hp | 2002 |
| E-1019 | N/A | P-1019 | #3 Fire Water Pump | 2,000 gpm @ 246 hp | 2004 |
| E-1020 | N/A | P-1020 | #4 Fire Water Pump | 2,000 gpm @ 246 hp | 2004 |
| E-699 | N/A | T-699 | #2 Fire Water Pump Diesel Fuel Storage Tank | 750 gallons | Prior to 1984 |
| E-154 | N/A | T-154 | #3/#4 Fire Water Pump Diesel Fuel Storage Tank | 440 gallons | Mid to late 1990s |
| E-155 | N/A | T-155 | #3/#4 Fire Water Pump Diesel Fuel Storage Tank | 440 gallons | Mid to late |

¹For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

| | | |
|---|--|---|
| Emission unit ID number: EG-1 | Emission unit name: Emergency Generator #1 | List any control devices associated with this emission unit: None |
|---|--|---|

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Emergency backup electric generator for the Emergency Operations Center (EOC).

| | | |
|----------------------|----------------------|-----------------------|
| Manufacturer: | Model number: | Serial number: |
|----------------------|----------------------|-----------------------|

| | | |
|-----------------------------------|-----------------------------------|--|
| Construction date: 2010 | Installation date: 2010 | Modification date(s): MM/DD/YYYY |
|-----------------------------------|-----------------------------------|--|

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
420 hp

| | | |
|-----------------------------------|-----------------------------------|------------------------------------|
| Maximum Hourly Throughput: | Maximum Annual Throughput: | Maximum Operating Schedule: |
|-----------------------------------|-----------------------------------|------------------------------------|

Fuel Usage Data (fill out all applicable fields)

| | |
|--|---|
| Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired |
|--|---|

| | |
|--|---|
| Maximum design heat input and/or maximum horsepower rating: | Type and Btu/hr rating of burners: |
|--|---|

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Diesel

Describe each fuel expected to be used during the term of the permit.

| Fuel Type | Max. Sulfur Content | Max. Ash Content | BTU Value |
|-----------|---------------------|------------------|-----------|
| Diesel | | | |
| | | | |
| | | | |
| | | | |

| Emissions Data | | |
|---|---------------------|-----|
| Criteria Pollutants | Potential Emissions | |
| | PPH | TPY |
| Carbon Monoxide (CO) | NA | NA |
| Nitrogen Oxides (NO _x) | NA | NA |
| Lead (Pb) | NA | NA |
| Particulate Matter (PM _{2.5}) | NA | NA |
| Particulate Matter (PM ₁₀) | NA | NA |
| Total Particulate Matter (TSP) | NA | NA |
| Sulfur Dioxide (SO ₂) | NA | NA |
| Volatile Organic Compounds (VOC) | NA | NA |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| NA | NA | NA |
| | | |
| | | |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| NA | NA | NA |
| | | |
| | | |
| <p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>NA</p> | | |

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

The affected engine is used to provide power in the event of an unexpected electric outage of the emergency operations center.

Engines are subject to 40 CFR Part 60, Subpart IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. Subpart IIII provisions are referenced by 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT)

Applicable Subpart IIII provisions listed in Regulation 13 Class II General Permit G60-C023. A copy of Permit G60-C054 is attached to this emission unit form.

Summary of Subpart IIII Requirements

- Fuel Requirements:
Sulfur content: 15 ppm maximum for non-road diesel fuel and either
 - minimum Cetane index of 40 or
 - a maximum aromatic content of 35 volume percent.
- Emission Standards
 - Table 1 to Subpart IIII of Part 60 - Must have manufacturer's certification.
- Monitoring Requirements
 - engine must be equipped with a non-resettable run hours meter.
- Recordkeeping
 - Maintain a copy of engine manufacturer's data indicating compliance with the emission standards.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

A copy of the manufacturer's certification data will be maintained.
A record of the engine hours of operation will be maintained.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

| | | |
|--|--|---|
| Emission unit ID number: P-302 | Emission unit name: #2 Emergency Fire Water Pump | List any control devices associated with this emission unit: None |
|--|--|---|

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fire pump used for site emergency services.

| | | |
|----------------------|----------------------|-----------------------|
| Manufacturer: | Model number: | Serial number: |
|----------------------|----------------------|-----------------------|

| | | |
|---|---|------------------------------|
| Construction date: Prior to June 2006 | Installation date: Prior to June 2006 | Modification date(s): |
|---|---|------------------------------|

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
420 hp

| | | |
|-----------------------------------|-----------------------------------|------------------------------------|
| Maximum Hourly Throughput: | Maximum Annual Throughput: | Maximum Operating Schedule: |
|-----------------------------------|-----------------------------------|------------------------------------|

Fuel Usage Data (fill out all applicable fields)

| | |
|--|---|
| Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired |
|--|---|

| | |
|--|---|
| Maximum design heat input and/or maximum horsepower rating: | Type and Btu/hr rating of burners: |
|--|---|

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Diesel

Describe each fuel expected to be used during the term of the permit.

| Fuel Type | Max. Sulfur Content | Max. Ash Content | BTU Value |
|-----------|---------------------|------------------|-----------|
| Diesel | | | |
| | | | |
| | | | |
| | | | |

| <i>Emissions Data</i> | | |
|---|---------------------|-----|
| Criteria Pollutants | Potential Emissions | |
| | PPH | TPY |
| Carbon Monoxide (CO) | NA | NA |
| Nitrogen Oxides (NO _x) | NA | NA |
| Lead (Pb) | NA | NA |
| Particulate Matter (PM _{2.5}) | NA | NA |
| Particulate Matter (PM ₁₀) | NA | NA |
| Total Particulate Matter (TSP) | NA | NA |
| Sulfur Dioxide (SO ₂) | NA | NA |
| Volatile Organic Compounds (VOC) | NA | NA |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| NA | NA | NA |
| | | |
| | | |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| NA | NA | NA |
| | | |
| | | |
| <p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>NA</p> | | |

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Diesel fueled (compression ignition) internal combustion engines for emergency use (less than or equal to 500 bhp) constructed prior to June 12, 2006, are covered by the following provisions of 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT). These provisions apply to #2, #3, and #4 diesel fueled firewater pumps.

Emission Limits and Other Requirements - 63.6602, Table 2c

Monitoring, Installation, Collection, Operation and Maintenance Requirements - 63.6625(e), (f), (h), and (i)

Continuous Compliance - 63.6605 & 63.6640(f)

Recordkeeping Requirements - 63.6655(a)(1), (a)(2), (a)(4), (a)(5), (e)(2), (f)(1) and 63.6660

General Provisions (40 CFR part 63) - Yes, except per 63.6645(a)(5), the following do not apply: 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b)-(e), (g) and (h).

Summary of Requirements:

Operational, testing and maintenance checks limited to 100 hour/yr.

Non-emergency use is allowed but for only 50 hours per year that is applied to the 100 hrs/yr limit.

All hours of operation must be logged/documented.

Non-resettable hour meters must be installed.

Change oil and filter every 500 hours of operation or annually, whichever comes first.

Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first.

Inspect hoses and belts every 1,000 hours of operation or annually, whichever comes first

Operate the engine in accordance with the manufacturer's emission-related written instructions or develop your own maintenance plan.

See attachment to this form for proposed permit language.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Records will be maintain of engine use and maintenance conducted.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

Proposed Permit Language for Existing Emergency Compression Ignition Stationary Reciprocating Internal Combustion Engines Less Than or Equal to 500 bhp Located at Major HAP Sources

Requirements for [Emergency Engines under 40 C.F.R. 63, Subpart ZZZZ (RICE); Firewater Pumps – Emission Unit Ids. P302, P1019 and P1020

1. Limitations and Standards

- 1.1. For emergency stationary CI RICE¹, you must meet the following requirements, except during periods of startup:
- a. Change oil and filter every 500 hours of operation or annually, whichever comes first;²
 - b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;
 - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.³

During periods of startup you must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

¹ If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of 40 C.F.R. 63 Subpart ZZZZ, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

² Sources have the option to utilize an oil analysis program as described in 40 C.F.R. §63.6625(i) in order to extend the specified oil change requirement in Table 2c of 40 C.F.R. 63 Subpart ZZZZ.

³ Sources can petition the Administrator pursuant to the requirements of 40 C.F.R. §63.6(g) for alternative work practices.

[40 C.F.R. §63.6602, Table 2c, Row 1]

- 1.2. At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 C.F.R. §63.6605(b)]

- 1.3. If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own 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.

[40 C.F.R. §63.6640(a), Table 6, Row 9]

- 1.4. If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.
[40 C.F.R. §63.6625(f)]

- 1.5. If you own or operate a stationary CI engine that is subject to the work, operation or management practices in item 1 of Table 2c to 40 C.F.R. 63 Subpart ZZZZ (permit condition 13.1.2.), you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c to 40 C.F.R. 63 Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c to 40 C.F.R. 63 Subpart ZZZZ (permit condition 13.1.2.a.). The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base 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 all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the 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 (permit condition 13.1.4.).
[40 C.F.R. §63.6625(i)]

- 1.6. *Requirements for emergency stationary RICE.* If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (i) through (iii) of this permit condition. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (i) through (iii) of this permit condition, is prohibited. If you do not operate the engine according to the requirements in paragraphs (i) through (iii) of this permit condition, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.
 - (i) There is no time limit on the use of emergency stationary RICE in emergency situations.

 - (ii) You may operate your emergency stationary RICE 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. 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 RICE beyond 100 hours per year.

 - (iii) You may operate your emergency stationary RICE 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 power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and

transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this condition as long as the power provided by the financial arrangement is limited to emergency power.

[40 C.F.R. §63.6640(f)(1) through (f)(4)]

2. Recordkeeping Requirements

- 2.1. You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate an existing stationary emergency RICE.
[40 C.F.R. §§63.6655(e) and 63.6655(e)(2)]
- 2.2. If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator 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.
[40 C.F.R. §§63.6655(f) and 63.6655(f)(1)]

3.0. Reporting Requirements

- 3.1. You must report each instance in which you did not meet each limitation in Table 2c to 40 C.F.R. 63 Subpart ZZZZ (condition 1.1.). These instances are deviations from the emission and operating limitations in 40 C.F.R. 63 Subpart ZZZZ. These deviations must be reported according to the requirements in 40 C.F.R. §63.6650 (permit condition 13.5.3.).
[40 C.F.R. §63.6640(b)]
- 3.2. You must also report each instance in which you did not meet the requirements in Table 8 to 40 C.F.R. 63 Subpart ZZZZ (Applicability of General Provisions to Subpart ZZZZ) that apply to you.
[40 C.F.R. §63.6640(e)]
- 3.3. The permittee must report all deviations as defined in 40 C.F.R. 63 Subpart ZZZZ in the semiannual monitoring report.
[40 C.F.R. §63.6650(f)]

ATTACHMENT E - Emission Unit Form

Emission Unit Description

| | | |
|---|--|---|
| Emission unit ID number: P-1019 | Emission unit name: #3 Emergency Fire Water Pump | List any control devices associated with this emission unit: None |
|---|--|---|

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fire pump used for site emergency services.

| | | |
|----------------------|----------------------|-----------------------|
| Manufacturer: | Model number: | Serial number: |
|----------------------|----------------------|-----------------------|

| | | |
|---|---|------------------------------|
| Construction date: Prior to June 2006 | Installation date: Prior to June 2006 | Modification date(s): |
|---|---|------------------------------|

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

420 hp

| | | |
|-----------------------------------|-----------------------------------|------------------------------------|
| Maximum Hourly Throughput: | Maximum Annual Throughput: | Maximum Operating Schedule: |
|-----------------------------------|-----------------------------------|------------------------------------|

Fuel Usage Data (fill out all applicable fields)

| | |
|--|---|
| Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired |
|--|---|

| | |
|--|---|
| Maximum design heat input and/or maximum horsepower rating: | Type and Btu/hr rating of burners: |
|--|---|

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Diesel

Describe each fuel expected to be used during the term of the permit.

| Fuel Type | Max. Sulfur Content | Max. Ash Content | BTU Value |
|-----------|---------------------|------------------|-----------|
| Diesel | | | |
| | | | |
| | | | |
| | | | |

| <i>Emissions Data</i> | | |
|---|---------------------|-----|
| Criteria Pollutants | Potential Emissions | |
| | PPH | TPY |
| Carbon Monoxide (CO) | NA | NA |
| Nitrogen Oxides (NO _x) | NA | NA |
| Lead (Pb) | NA | NA |
| Particulate Matter (PM _{2.5}) | NA | NA |
| Particulate Matter (PM ₁₀) | NA | NA |
| Total Particulate Matter (TSP) | NA | NA |
| Sulfur Dioxide (SO ₂) | NA | NA |
| Volatile Organic Compounds (VOC) | NA | NA |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| NA | NA | NA |
| | | |
| | | |
| | | |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| NA | NA | NA |
| | | |
| | | |
| <p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>NA</p> | | |

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Diesel fueled (compression ignition) internal combustion engines for emergency use (less than or equal to 500 bhp) constructed prior to June 12, 2006, are covered by the following provisions of 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT). These provisions apply to #2, #3, and #4 diesel fueled firewater pumps.

Emission Limits and Other Requirements - 63.6602, Table 2c

Monitoring, Installation, Collection, Operation and Maintenance Requirements - 63.6625(e), (f), (h), and (i)

Continuous Compliance - 63.6605 & 63.6640(f)

Recordkeeping Requirements - 63.6655(a)(1), (a)(2), (a)(4), (a)(5), (e)(2), (f)(1) and 63.6660

General Provisions (40 CFR part 63) - Yes, except per 63.6645(a)(5), the following do not apply: 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b)-(e), (g) and (h).

Summary of Requirements:

Operational, testing and maintenance checks limited to 100 hour/yr.

Non-emergency use is allowed but for only 50 hours per year that is applied to the 100 hrs/yr limit.

All hours of operation must be logged/documented.

Non-resettable hour meters must be installed.

Change oil and filter every 500 hours of operation or annually, whichever comes first.

Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first.

Inspect hoses and belts every 1,000 hours of operation or annually, whichever comes first

Operate the engine in accordance with the manufacturer's emission-related written instructions or develop your own maintenance plan.

See attachment to this form for proposed permit language.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Records will be maintain of engine use and maintenance conducted.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

Proposed Permit Language for Existing Emergency Compression Ignition Stationary Reciprocating Internal Combustion Engines Less Than or Equal to 500 bhp Located at Major HAP Sources

Requirements for [Emergency Engines under 40 C.F.R. 63, Subpart ZZZZ (RICE); Firewater Pumps – Emission Unit Ids. P302, P1019 and P1020

1. Limitations and Standards

- 1.1. For emergency stationary CI RICE¹, you must meet the following requirements, except during periods of startup:
- a. Change oil and filter every 500 hours of operation or annually, whichever comes first;²
 - b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;
 - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.³

During periods of startup you must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

¹ If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of 40 C.F.R. 63 Subpart ZZZZ, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

² Sources have the option to utilize an oil analysis program as described in 40 C.F.R. §63.6625(i) in order to extend the specified oil change requirement in Table 2c of 40 C.F.R. 63 Subpart ZZZZ.

³ Sources can petition the Administrator pursuant to the requirements of 40 C.F.R. §63.6(g) for alternative work practices.

[40 C.F.R. §63.6602, Table 2c, Row 1]

- 1.2. At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 C.F.R. §63.6605(b)]

- 1.3. If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own 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.

[40 C.F.R. §63.6640(a), Table 6, Row 9]

- 1.4. If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.
[40 C.F.R. §63.6625(f)]

- 1.5. If you own or operate a stationary CI engine that is subject to the work, operation or management practices in item 1 of Table 2c to 40 C.F.R. 63 Subpart ZZZZ (permit condition 13.1.2.), you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c to 40 C.F.R. 63 Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c to 40 C.F.R. 63 Subpart ZZZZ (permit condition 13.1.2.a.). The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base 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 all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the 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 (permit condition 13.1.4.).
[40 C.F.R. §63.6625(i)]

- 1.6. *Requirements for emergency stationary RICE.* If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (i) through (iii) of this permit condition. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (i) through (iii) of this permit condition, is prohibited. If you do not operate the engine according to the requirements in paragraphs (i) through (iii) of this permit condition, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.
 - (i) There is no time limit on the use of emergency stationary RICE in emergency situations.

 - (ii) You may operate your emergency stationary RICE 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. 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 RICE beyond 100 hours per year.

 - (iii) You may operate your emergency stationary RICE 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 power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and

transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this condition as long as the power provided by the financial arrangement is limited to emergency power.

[40 C.F.R. §63.6640(f)(1) through (f)(4)]

2. Recordkeeping Requirements

- 2.1. You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate an existing stationary emergency RICE.
[40 C.F.R. §§63.6655(e) and 63.6655(e)(2)]
- 2.2. If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator 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.
[40 C.F.R. §§63.6655(f) and 63.6655(f)(1)]

3.0. Reporting Requirements

- 3.1. You must report each instance in which you did not meet each limitation in Table 2c to 40 C.F.R. 63 Subpart ZZZZ (condition 1.1.). These instances are deviations from the emission and operating limitations in 40 C.F.R. 63 Subpart ZZZZ. These deviations must be reported according to the requirements in 40 C.F.R. §63.6650 (permit condition 13.5.3.).
[40 C.F.R. §63.6640(b)]
- 3.2. You must also report each instance in which you did not meet the requirements in Table 8 to 40 C.F.R. 63 Subpart ZZZZ (Applicability of General Provisions to Subpart ZZZZ) that apply to you.
[40 C.F.R. §63.6640(e)]
- 3.3. The permittee must report all deviations as defined in 40 C.F.R. 63 Subpart ZZZZ in the semiannual monitoring report.
[40 C.F.R. §63.6650(f)]

ATTACHMENT E - Emission Unit Form

Emission Unit Description

| | | |
|---|--|---|
| Emission unit ID number: P-1020 | Emission unit name: #4 Emergency Fire Water Pump | List any control devices associated with this emission unit: None |
|---|--|---|

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fire pump used for site emergency services.

| | | |
|----------------------|----------------------|-----------------------|
| Manufacturer: | Model number: | Serial number: |
|----------------------|----------------------|-----------------------|

| | | |
|---|---|------------------------------|
| Construction date: Prior to June 2006 | Installation date: Prior to June 2006 | Modification date(s): |
|---|---|------------------------------|

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

420 hp

| | | |
|-----------------------------------|-----------------------------------|------------------------------------|
| Maximum Hourly Throughput: | Maximum Annual Throughput: | Maximum Operating Schedule: |
|-----------------------------------|-----------------------------------|------------------------------------|

Fuel Usage Data (fill out all applicable fields)

| | |
|--|---|
| Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired |
|--|---|

| | |
|--|---|
| Maximum design heat input and/or maximum horsepower rating: | Type and Btu/hr rating of burners: |
|--|---|

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Diesel

Describe each fuel expected to be used during the term of the permit.

| Fuel Type | Max. Sulfur Content | Max. Ash Content | BTU Value |
|-----------|---------------------|------------------|-----------|
| Diesel | | | |
| | | | |
| | | | |
| | | | |

| Emissions Data | | |
|---|---------------------|-----|
| Criteria Pollutants | Potential Emissions | |
| | PPH | TPY |
| Carbon Monoxide (CO) | NA | NA |
| Nitrogen Oxides (NO _x) | NA | NA |
| Lead (Pb) | NA | NA |
| Particulate Matter (PM _{2.5}) | NA | NA |
| Particulate Matter (PM ₁₀) | NA | NA |
| Total Particulate Matter (TSP) | NA | NA |
| Sulfur Dioxide (SO ₂) | NA | NA |
| Volatile Organic Compounds (VOC) | NA | NA |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| NA | NA | NA |
| | | |
| | | |
| | | |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| NA | NA | NA |
| | | |
| | | |
| <p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>NA</p> | | |

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Diesel fueled (compression ignition) internal combustion engines for emergency use (less than or equal to 500 bhp) constructed prior to June 12, 2006, are covered by the following provisions of 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT). These provisions apply to #2, #3, and #4 diesel fueled firewater pumps.

Emission Limits and Other Requirements - 63.6602, Table 2c

Monitoring, Installation, Collection, Operation and Maintenance Requirements - 63.6625(e), (f), (h), and (i)

Continuous Compliance - 63.6605 & 63.6640(f)

Recordkeeping Requirements - 63.6655(a)(1), (a)(2), (a)(4), (a)(5), (e)(2), (f)(1) and 63.6660

General Provisions (40 CFR part 63) - Yes, except per 63.6645(a)(5), the following do not apply: 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b)-(e), (g) and (h).

Summary of Requirements:

Operational, testing and maintenance checks limited to 100 hour/yr.

Non-emergency use is allowed but for only 50 hours per year that is applied to the 100 hrs/yr limit.

All hours of operation must be logged/documented.

Non-resettable hour meters must be installed.

Change oil and filter every 500 hours of operation or annually, whichever comes first.

Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first.

Inspect hoses and belts every 1,000 hours of operation or annually, whichever comes first

Operate the engine in accordance with the manufacturer's emission-related written instructions or develop your own maintenance plan.

See attachment to this form for proposed permit language.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Records will be maintain of engine use and maintenance conducted.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

Proposed Permit Language for Existing Emergency Compression Ignition Stationary Reciprocating Internal Combustion Engines Less Than or Equal to 500 bhp Located at Major HAP Sources

Requirements for [Emergency Engines under 40 C.F.R. 63, Subpart ZZZZ (RICE); Firewater Pumps – Emission Unit Ids. P302, P1019 and P1020

1. Limitations and Standards

- 1.1. For emergency stationary CI RICE¹, you must meet the following requirements, except during periods of startup:
- a. Change oil and filter every 500 hours of operation or annually, whichever comes first;²
 - b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;
 - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.³

During periods of startup you must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

¹ If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of 40 C.F.R. 63 Subpart ZZZZ, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

² Sources have the option to utilize an oil analysis program as described in 40 C.F.R. §63.6625(i) in order to extend the specified oil change requirement in Table 2c of 40 C.F.R. 63 Subpart ZZZZ.

³ Sources can petition the Administrator pursuant to the requirements of 40 C.F.R. §63.6(g) for alternative work practices.

[40 C.F.R. §63.6602, Table 2c, Row 1]

- 1.2. At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
[40 C.F.R. §63.6605(b)]
- 1.3. If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own 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.
[40 C.F.R. §63.6640(a), Table 6, Row 9]

- 1.4. If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.
[40 C.F.R. §63.6625(f)]
- 1.5. If you own or operate a stationary CI engine that is subject to the work, operation or management practices in item 1 of Table 2c to 40 C.F.R. 63 Subpart ZZZZ (permit condition 13.1.2.), you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c to 40 C.F.R. 63 Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c to 40 C.F.R. 63 Subpart ZZZZ (permit condition 13.1.2.a.). The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base 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 all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the 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 (permit condition 13.1.4.).
[40 C.F.R. §63.6625(i)]
- 1.6. *Requirements for emergency stationary RICE.* If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (i) through (iii) of this permit condition. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (i) through (iii) of this permit condition, is prohibited. If you do not operate the engine according to the requirements in paragraphs (i) through (iii) of this permit condition, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.
 - (i) There is no time limit on the use of emergency stationary RICE in emergency situations.
 - (ii) You may operate your emergency stationary RICE 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. 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 RICE beyond 100 hours per year.
 - (iii) You may operate your emergency stationary RICE 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 power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and

transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this condition as long as the power provided by the financial arrangement is limited to emergency power.

[40 C.F.R. §63.6640(f)(1) through (f)(4)]

2. Recordkeeping Requirements

- 2.1. You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate an existing stationary emergency RICE.
[40 C.F.R. §§63.6655(e) and 63.6655(e)(2)]
- 2.2. If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator 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.
[40 C.F.R. §§63.6655(f) and 63.6655(f)(1)]

3.0. Reporting Requirements

- 3.1. You must report each instance in which you did not meet each limitation in Table 2c to 40 C.F.R. 63 Subpart ZZZZ (condition 1.1.). These instances are deviations from the emission and operating limitations in 40 C.F.R. 63 Subpart ZZZZ. These deviations must be reported according to the requirements in 40 C.F.R. §63.6650 (permit condition 13.5.3.).
[40 C.F.R. §63.6640(b)]
- 3.2. You must also report each instance in which you did not meet the requirements in Table 8 to 40 C.F.R. 63 Subpart ZZZZ (Applicability of General Provisions to Subpart ZZZZ) that apply to you.
[40 C.F.R. §63.6640(e)]
- 3.3. The permittee must report all deviations as defined in 40 C.F.R. 63 Subpart ZZZZ in the semiannual monitoring report.
[40 C.F.R. §63.6650(f)]