



Bureau of Air Pollution Control

Facility ID No. A0022

Permit No. AP9711-3419

**CLASS I AIR QUALITY
OPERATING PERMIT TO CONSTRUCT**

Issued to: DEPARTMENT OF THE ARMY, HAWTHORNE ARMY DEPOT, AS PERMITTEE

Section V. Specific Operating Conditions (continued)

B. Emission Unit S2.002 Location North 4,272.87 km, East 361.66 km, UTM (Zone 11, NAD 83)

System 2 – Mobile Mercury Transfer System (MMTS)

S 2.002 Mobile Mercury Transfer System process ventilation system

1. Air Pollution Control Equipment

- a. Exhaust gas shall be ducted to the following control systems with 100% capture:
 - (1) Sieve-type roughing filter (pre-filter for control #2).
 - (2) Activated carbon filter.

b. Descriptive Stack Parameters

Stack Height (ft): 27
Stack Diameter (ft): 0.665
Stack Temperature (°F): 72
Stack Exit Velocity (fps): 89
Exhaust Flow (ACFM): 1,850

2. Emission Limits NAC 445B.3365

On and after the date of startup of S2.002, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of S2.002, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 The discharge of mercury (Hg) to the atmosphere from S2.002 will not exceed 0.000069 pounds per hour, nor more than 0.000072 tons per year, based on a 12-month rolling period.
- b. NAC 445B.22017 State Only Requirement The opacity from the stack discharge of S2.002 will not equal or exceed 20%.

3. Operating Parameters NAC 445B.3365

- a. The following work practice standards will be followed:
 - (1) Room temperature within the MMTS (S2.002) shall be maintained in the range of 21-24°C (70-75°F).
 - (2) The process ventilation/HEGA filter system shall be operated at all times during mercury transfer operations.
 - (3) Maximum process air flow rate through the ventilation and filter system shall not exceed 1,850 cubic feet per minute
 - (4) A minimum airflow velocity of 100 ft/min shall be maintained at the working faces of the 2 fume hoods.
 - (5) Mercury concentration in the air stream shall be measured before entering and after exiting the HEGA carbon adsorption filter system by the Mercury Monitoring System (MMS).
 - (6) During operations in the MMTS, mercury vapor concentrations shall be monitored at 16 locations within the MMTS building by the MMS. The MMS shall be set to trigger an alarm if the mercury concentration at any of the inside measuring locations reaches or exceeds 25 µg/m³.
- b. Hours
 - (1) S2.002 may operate only between the hours of 6:30am and 5:00pm.
 - (2) S2.002 may operate up to 2,080 hours per calendar year.

4. Compliance, Monitoring, Recordkeeping and Reporting NAC 445B.3365

- a. Monitor and record the hours of operation of S2.002 on a daily basis.
- b. Conduct inspections on ventilation and carbon fiber filter systems as recommended by manufacturer specifications and/or engineering design recommendations and record the results and any corrective actions taken.



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Section V. Specific Operating Conditions (continued)

B. Emission Unit S2.002 (continued)

4. Compliance, Monitoring, Recordkeeping and Reporting NAC 445B.3365 (continued)

- c. Permittee shall Conduct and record a weekly visible emission inspection on **S2.002**; record the time of the survey and indicate whether any visible emissions that are not normal for the process, were observed. If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test will be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.
- d. Initial Performance Tests: Within 60 days after achieving the maximum production rate at which **S2.002** will be operated, but no later than 180 days after initial startup of the facility, the Permittee will conduct and record the following performance tests on the exhaust stack of **S2.002**
 - (1) Conduct and record a US EPA Method 29 of 40 CFR Part 60 compliance test for mercury on the single exhaust stack (post controls). Each of the three test runs must collect a sample volume of 1.7 dry standard cubic meters (60 dscf) or be conducted for up to two hours in an effort to collect this sample volume.
 - (2) Performance tests required under this section that are conducted below the maximum allowable throughput, as established in B.3.c. of this section, shall be subject to the director's review to determine if the throughputs during the performance tests were sufficient to provide adequate compliance demonstration. Should the director determine that the performance tests do not provide adequate compliance demonstration; the director may require additional performance testing.

5. Class I Operating Permit Application NAC 445B.3366

An operating permit to construct expires if a complete application for a Class I operating permit or a modification of an existing Class I operating permit is not submitted within 12 months after the date of initial startup.



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Section V. Specific Operating Conditions (continued)

C. Emission Unit S2.003 Location North 4,272.87 km, East 361.66 km, UTM (Zone 11, NAD 83)

System 3 – Emergency Generator for MMTS

S 2.003 147 HP Cummins emergency diesel generator, mdl# 100DSGAA, s/n J13057368, mfd 2013

1. Air Pollution Control Equipment

S2.003 has no add-on controls.

2. Emission Limits NAC 445B.3365

On and after the date of startup of S2.003, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of S2.003, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.036 pounds per hour, nor more than 0.002 tons per year, based on a 12-month rolling period.
- b. NAC 445B.305 The discharge of PM (particulate matter) to the atmosphere will not exceed 0.036 pounds per hour, nor more than 0.002 tons per year, based on a 12-month rolling period.
- c. NAC 445B.22047 State Only Requirement The maximum allowable discharge of sulfur to the atmosphere will not exceed 0.79 pounds per hour.
- d. NAC 445B.305 The discharge of SO₂ (sulfur dioxide) to the atmosphere will not exceed 0.055 pounds per hour, nor more than 0.003 tons per year, based on a 12-month rolling period. The SO₂ emission limit applies at all times, including periods of startup, shut down, and malfunction.
- e. NAC 445B.305 The discharge of NO_x (nitrogen oxides) to the atmosphere will not exceed 0.622 pounds per hour, nor more than 0.031 tons per year, based on a 12-month rolling period.
- f. NAC 445B.305 The discharge of CO (carbon monoxide) to the atmosphere will not exceed 0.334 pounds per hour, nor more than 0.012 tons per year, based on a 12-month rolling period.
- g. NAC 445B.305 The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 0.049 pounds per hour, nor more than 0.005 tons per year, based on a 12-month rolling period.
- h. NAC 445B.22017 State Only Requirement - The opacity from the stack discharge of S2.003 will not equal or exceed 20%.
- i. New Source Performance Standards – Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60.4200 et. seq; 40 CFR Part 89.112)
 - (1) Non-methane Hydrocarbons plus Nitrogen Oxides (NMCH+NO_x) shall not exceed 4.0 grams/kW-hr (3.0 grams/hp-hr).
 - (2) Carbon Monoxide (CO) shall not exceed 5.0 grams/kW-hr (3.7 grams/hp-hr).
 - (3) Particulate Matter (PM) shall not exceed 0.30 grams/kW-hr (0.22 grams/hp-hr).

3. Operating Parameters NAC 445B.3365

- a. S2.003 will combust diesel as the primary fuel and will not exceed 8.1 gallons of diesel combusted per hour.
- b. The sulfur content of the diesel fuel combusted n S2.003 will not exceed 0.0015% by weight.
- c. Hours
Maintenance checks and readiness testing of S2.003 is limited to 100 hours per year. There is no time limit on the use of S2.003 in emergency situations.
- d. On or before the date of startup of S2.003, Permittee will install, calibrate, operate, and maintain a fuel flow meter to monitor the amount of diesel fuel combusted in S2.003.



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Section V. Specific Operating Conditions (continued)

C. Emission Unit S2.003 (continued)

3. Operating Parameters NAC 445B.3365 (continued)

e. New Source Performance Standards – Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60.4200 et. seq.)

- (1) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for non-road diesel fuel (40 CFR Part 60.4207):
 - (a) Sulfur content – 15 ppm (0.0015 wt%) maximum for non-road diesel fuel.
 - (b) Cetane index or aromatic content – minimum cetane index of 40 or maximum aromatic content of 35 volume percent.
- (2) Permittee must install a non-resettable hour meter prior to startup of S2.003 (40CFR60.4209(a)).
- (3) Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR Part 60.4205(b), according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine (40 CFR Part 60.4206).

f. 40 CFR Part 63.6590 – Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE)(40 CFR Part 63.6590 (c))

- (1) An affected source that is a new or reconstructed stationary RICE located at an area source, must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines. No further requirements apply for such engines under this part.

4. Compliance, Monitoring, Recordkeeping and Reporting NAC 445B.3365

a. On and after the date of startup of S2.003, the Permittee will:

- (1) Monitor and record the fuel consumption rate of #2 diesel fuel as measured by the fuel flow meter on a daily basis when operated.
- (2) Monitor and record the hours of operation of S2.003 while burning #2 diesel fuel on a daily basis when operated.
- (3) Monitor the sulfur content of the #2 diesel combusted in S2.003.
- (4) Monitor and record that the maintenance and operation of S2.003 is in accordance with best management practices and maintenance guidelines, on a monthly basis.
- (5) The requirement monitoring and recordkeeping established in (1) through (4) above will be maintained in a contemporaneous log containing, at a minimum, the following recordkeeping:
 - (a) The calendar date of any required monitoring.
 - (b) The total daily fuel consumption value.
 - (c) The total daily hours of operation for S2.003.
 - (d) The monthly hours of operation, and the corresponding sum of hours of operation for the calendar year. The monthly hours of operation will be determined at the end of each calendar month as the sum of daily hours of operation as determined in (c) above for each day of the calendar month. The monthly hours of operation shall be added beginning in January of each year to insure compliance with 3.e. of this section.
 - (e) Fuel supplier certification consisting of the name of the oil supplier, and a statement from the oil supplier that the #2 diesel complies with the sulfur limit as specified in 3.c of this section for each #2 diesel delivery.
 - (f) Observations made and any corrective actions taken on S2.003 for operation and maintenance in accordance with best management practices.



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Section V. Specific Operating Conditions (continued)

C. Emission Unit S2.003 (continued)

4. Compliance, Monitoring, Recordkeeping and Reporting NAC 445B.3365 (continued)

b. 40 CFR Part 60, Subpart IIII Notification, Reporting, and Recordkeeping Requirements (40 CFR 60.4214)

If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in Table 5 to 40 CFR Part 60, Subpart IIII, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time (40 CFR 60.4214(b)).

5. 40 CFR Part 60, Subpart IIII Compliance Requirements for Owners and Operators (40 CFR 60.4211)

- a. The Permittee must comply with the emission standards specified in 40 CFR Part 60, Subpart IIII. The Permittee must operate and maintain the stationary CI internal combustion engine and control device 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 (40 CFR 60.4211(a)).
- b. The Permittee must comply with the emission standards specified in 40 CFR 60.4205(b), as set forth in C.2.j of this section. The Permittee must comply by purchasing an engine certified to the emission standards in 40 CFR 60.4205(b), as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications (40 CFR 60.4211(c)).
- c. Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited (40 CFR 60.4211(f)).

6. Class I Operating Permit Application NAC 445B.3366

An operating permit to construct expires if a complete application for a Class I operating permit or a modification of an existing Class I operating permit is not submitted within 12 months after the date of initial startup.

*******End of Specific Operating Conditions*******



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Section VI. Emission Caps

A. S2.001 is subject to the Emission Cap in AP9711-0863.02, Section VII.A.

*******End of Emission Caps*******



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Section VII. Surface Area Disturbance Conditions

Surface area disturbance in excess of 20 acres.

A. Dust Control Plan (NRS 445B.230.6)

The Permittee may not cause or permit the construction, repair, or demolition work, or the use of unpaved or untreated areas without applying all such measures as may be required by the Director to prevent particulate matter from becoming airborne.

B. Permittee will control fugitive dust in accordance with the dust control plan entitled "Plan for Control of Fugitive Particulate Matter Emissions from Surface Area Disturbance Activities at Hawthorne Army Depot (HWAD) Main Base", as contained in Appendix 8 of the Class I-B Operating Permit Renewal Application dated November 7, 2008.

C. NAC 445B.22037

Fugitive Dust

1. The Permittee may not cause or permit the handling, transporting, or storing of any material in a manner which allows or may allow controllable particulate matter to become airborne.
2. Except as otherwise provided in subsection 4, the Permittee may not cause or permit the construction, repair, demolition, or use of unpaved or untreated areas without first putting into effect an ongoing program using the best practical methods to prevent particulate matter from becoming airborne. As used in this subsection, "best practical methods" includes, but is not limited to, paving, chemical stabilization, watering, phased construction, and revegetation.
3. Except as provided in subsection 4, the Permittee may not disturb or cover 5 acres or more of land or its topsoil until the permittee has obtained an Permit to construct for surface area disturbance to clear, excavate, or level the land or to deposit any foreign material to fill or cover the land.
4. The provisions of subsections 2 and 3 do not apply to:
 - a. Agricultural activities occurring on agricultural land; or
 - b. Surface disturbances authorized by a permit issued pursuant to NRS 519A.180 which occur on land which is not less than 5 acres or more than 20 acres.

*******End of Surface Area Disturbance Conditions *******



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Section VIII. Amendments

January 31, 2014 – New OPTC. Application submitted 11/14/2013. Application Log# 13AP7729

This Permit to construct:

1. **Is non-transferable. (NAC 445B.287)**
2. **Will be posted conspicuously at or near the stationary source. (NAC 445B.318)**
3. **Will expire if construction is not commenced within 18 months after the date of issuance or if construction of the facility is delayed for 18 months after initiated. (NAC 445B.3366)**
4. **Will expire if a complete application for a Class I operating permit or modification of an existing Class I operating permit is not submitted within 12 months after the initial start-up. (NAC 445B.3366)**
5. **Any party aggrieved by the Department's decision to issue this permit may appeal to the State Environmental Commission (SEC) within ten days after the date of notice of the Department's action. (NRS 445B.340)**
6. **The Permittee shall submit a complete Class I application within 12 months after the notification date of commencement of operation as required in this permit to construct. (NAC 445B.3361)**

Signature _____

Issued by: Jeffrey Kinder, P.E.
Supervisor, Permitting Branch
Bureau of Air Pollution Control

Phone: (775) 687-9475 **Date:** March 10, 2014



Bureau of Air Pollution Control

CLASS I NON-PERMIT EQUIPMENT LIST

Appended to DEPARTMENT OF THE ARMY, HAWTHORNE ARMY DEPOT, A0022, AP9711-3088 (OPTC)

Emission Unit #	Emission Unit Description
N/A	No additional Non-Permit Equipment proposed as part of this OPTC.

Note: The equipments listed on this attachment are subject to all applicable requirements of the NAC and ASIP.