

**V.C. EQUIPMENT SPECIFIC REQUIREMENTS - APC LANDFILL GAS FLARE NO. 2**

- ii. The project qualifies as a Pollution Control Project if it is environmentally beneficial.
  - iii. The project is environmentally beneficial if all NOx emissions from the project are offset.
- (B) The amount of ERCs to be provided is not in addition to the amount specified in Condition No. 21.

20. The permittee shall surrender (and has surrendered - See Condition No. 24) PM10 ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of Landfill Gas Air Pollution Control System PM10 emissions:

**[Basis: SMAQMD Rule 202]**

Equipment	Amount of PM10 Emissions for which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Landfill Gas Air Pollution Control System consisting of: 1. P/O 23110 Landfill Gas Flare No. 1 2. P/O 23111 Landfill Gas Flare No. 2 3. P/O 23112 IC engine No. 1 4. P/O 23113 IC engine No. 2 5. P/O 23114 IC engine No. 3 6. P/O 23115 IC engine No. 4 7. P/O 23116 IC engine No. 5	5,799	5,909	6,016	6,016

21. The following ROC ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 17:

See Table in Condition No. 21 associated with Landfill Gas Flare No. 1.

22. The following NOx/ROC ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 18:

**[Basis: SMAQMD Rule 202]**

See Table in Condition No. 22 associated with Landfill Gas Flare No. 1.

23. The following NOx/ROC ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the U.S. EPA requirement stated in Condition No. 19:

**[Basis: SMAQMD Rule 202]**

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See Table in Condition No. 23 associated with Landfill Gas Flare No. 1.

24. The following PM10 ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 20:

**[Basis: SMAQMD Rule 202]**

See Table in Condition No. 24 associated with Landfill Gas Flare No. 1.

### **EMISSION TESTING REQUIREMENTS**

25. An emission test shall be conducted each calendar year to demonstrate compliance with Condition Nos. 1, 2, 3, 4 and 9:

- A. Submit a Source Test Plan to the SMAQMD Air Pollution Control Officer for approval at least 30 days before the source test is to be performed.
- B. Notify the SMAQMD Air Pollution Control Officer at least 7 days prior to the source test date if the date has changed from that approved in the Source Test Plan.
- C. Submit the Source Test Results Report to the SMAQMD Air Pollution Control Officer within 60 days from the completion of the source test.
- D. The source test shall be conducted at the exhaust of the landfill gas flare (except for hydrogen sulfide test which shall use the inlet) and shall include a test for:
  - i. Either:
    - a. NMOC destruction efficiency, or
    - b. Total NMOC (ppmvd at 3% O<sub>2</sub> measured as hexane)
  - ii. Nitrogen oxides, NO<sub>x</sub>
  - iii. Carbon monoxide, CO
  - iv. Particulate Matter, PM<sub>10</sub>
  - v. Hydrogen sulfide, H<sub>2</sub>S (inlet)
  - vi. Combustion temperature (as measured by the thermocouple required by Condition No. 8)
  - vii. Landfill gas flow rate
- E. The SMAQMD Air Pollution Control Officer may waive the annual source test requirement for PM<sub>10</sub> if, in the SMAQMD Air Pollution Control Officer's sole judgment,

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previous source test results indicate that an adequate compliance margin has been maintained.

- F. Compliance with the NO<sub>x</sub> emission limit shall be determined using one of the following source test methods:
- i. CARB Method 100;
  - ii. U.S. EPA Method 7E; or
  - iii. Any other method approved by the U.S. Environmental Protection Agency and the SMAQMD Air Pollution Control Officer.

**[Basis: SMAQMD Rule 202]**

### **RACT DETERMINATION REQUIREMENTS**

26. This permit incorporates a Reasonably Available Control Technology (RACT) determination as required by the federal Clean Air Act (as amended 1990) Sections 182(b)(2) and 182(f).  
**[Basis: SMAQMD Rule 202 and 40 CFR 52.220(c)(382)(i)(A)(1)]**

27. For federal enforcement purposes the RACT provisions of this permit that are approved by the U.S. Environmental Protection Agency shall remain in effect as part of the State of California Implementation Plan (SIP) until replaced pursuant to 40 CFR 51 and approved by the U.S. EPA.

**[Basis: SMAQMD Rule 202 and 40 CFR 52.220(c)(382)(i)(A)(1)]**

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**ATTACHMENT C**

Actual Flare Combustion Temperature Observed  
During the Most Recent Landfill Gas Flare No. 2 Source Test

Date of Test	Actual 3-Hour Average Flare Combustion Temperature Observed During Source Test degrees F	Minimum 3-Hour Flare Combustion Temperature to Demonstrate Continuous Compliance degrees F
02-18-2010	1500	1450
Historical Data ↓		

[Basis: SMAQMD Rule 202]

**V.D. EQUIPMENT SPECIFIC REQUIREMENTS - (5) IC ENGINES, LANDFILL GAS CONTROL AND PRIME POWER, DRIVING ELECTRICAL GENERATORS**

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**A. EQUIPMENT DESCRIPTION:** The information specified under this section is enforceable by the SMAQMD, U.S. EPA and the public.

The requirements specified under the following sections apply to the following equipment:

**IC Engine No. 1, Prime Power**

P/O No. 23112  
Manufacturer: Caterpillar  
Model: G3616  
Serial No.: 4CG122  
Horsepower: 4,230 hp at 900 rpm  
Fuel: Landfill gas  
Driving: Electrical generator, 3.05MW

**IC Engine No. 2, Prime Power**

P/O No. 23113  
Manufacturer: Caterpillar  
Model: G3616  
Serial No.: 4CG123  
Horsepower: 4,230 hp at 900 rpm  
Fuel: Landfill gas  
Driving: Electrical generator, 3.05MW

**IC Engine No. 3, Prime Power**

P/O No. 23114  
Manufacturer: Caterpillar  
Model: G3616  
Serial No.: 4CG124  
Horsepower: 4,230 hp at 900 rpm  
Fuel: Landfill gas  
Driving: Electrical generator, 3.05MW

**IC Engine No. 4, Prime Power**

P/O No. 23115  
Manufacturer: Caterpillar  
Model: G3616  
Serial No.: BLB00258  
Horsepower: 4,230 hp at 900 rpm  
Fuel: Landfill gas  
Driving: Electrical generator, 3.05MW

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**IC Engine No. 5, Prime Power**

P/O No. 23116  
 Manufacturer: Caterpillar  
 Model: G3616  
 Serial No.: BLB00259  
 Horsepower: 4,230 hp at 900 rpm  
 Fuel: Landfill gas  
 Driving: Electrical generator, 3.05MW

**B. EQUIPMENT SPECIFIC FEDERALLY ENFORCEABLE REQUIREMENTS:** The requirements specified under this section are enforceable by the SMAQMD, U.S. EPA and the public.

**EMISSION LIMITS:**

1. Emissions from each IC engine shall not exceed the following limits:

- P/O 23112 IC engine No. 1 or
- P/O 23113 IC engine No. 2 or
- P/O 23114 IC engine No. 3 or
- P/O 23115 IC engine No. 4 or
- P/O 23116 IC engine No. 5

Pollutant	Maximum Allowable Emission
ROC (A)	A. 0.17 grams/hp-hour
NOx (B)	<p>B. <b><u>During periods that contain no short-term excursions:</u></b> (D)</p> <ul style="list-style-type: none"> <li>i. 0.40 grams/hp-hour, any consecutive 3 hour average, or</li> <li>ii. 30.0 ppmvd at 15% O<sub>2</sub>, any consecutive 3 hour average.</li> </ul> <p>C. <b><u>During periods that contain short-term excursions:</u></b> (D)</p> <ul style="list-style-type: none"> <li>i. 0.60 grams/hp-hour, any consecutive 3 hour average, or</li> <li>ii. 45.0 ppmvd at 15% O<sub>2</sub>, any consecutive 3 hour average.</li> </ul>
SO <sub>2</sub> (C)	D. 0.29 grams/hp-hour
PM <sub>10</sub> (C)	E. 0.113 grams/hp-hour

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Pollutant	Maximum Allowable Emission
CO (B)	<p>F. <b><u>During periods that contain no short-term excursions:</u></b> (D)</p> <p>i. 2.55 grams/hp-hour, any consecutive 3 hour average, or</p> <p>ii. 366 ppmvd at 15% O<sub>2</sub>, any consecutive 3 hour average.</p> <p>G. <b><u>During periods that contain short-term excursions:</u></b> (D)</p> <p>i. 3.48 grams/hp-hour, any consecutive 3 hour average, or</p> <p>ii. 500 ppmvd at 15% O<sub>2</sub>, any consecutive 3 hour average.</p>

(A) The previous ROC limit is superseded by this permittee requested emission limit

(B) SMAQMD BACT determination.

(C) The previous SMAQMD BACT determination is superseded by this more restrictive permittee requested emission limit.

(D) Short-term excursion is defined as any period, designated by the permittee, that is the direct result of non-uniform density or non-uniform heating value of the landfill gas fuel, when the consecutive 3 hour average NO<sub>x</sub> concentration exceeds 30.0 ppmvd at 15% O<sub>2</sub> (0.4 grams/hp-hour) or the consecutive 3 hour average CO concentration exceeds 366 ppmvd at 15% O<sub>2</sub> (2.55 grams/hp-hour).

2. The number of periods containing short-term excursions for NO<sub>x</sub> and CO shall not exceed the following:

Pollutant	Maximum Allowable Number of Periods (A) Containing Short-Term Excursions (B) (periods/quarter)
NO <sub>x</sub>	20
CO	10

(A) A period is defined as each consecutive 3 hour average.

(B) Short-term excursion is defined in Condition No. 1(D).

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3. Emissions from each IC engine shall not exceed the following limits:

**[Basis: SMAQMD Rule 202]**

P/O 23112 IC engine No. 1 or  
 P/O 23113 IC engine No. 2 or  
 P/O 23114 IC engine No. 3 or  
 P/O 23115 IC engine No. 4 or  
 P/O 23116 IC engine No. 5

Pollutant	Emission Factor grams/hp-hour	Maximum Allowable Emissions (E)					
		Daily	Quarter 1 (90 days)	Quarter 2 (91 days)	Quarter 3 (92 days)	Quarter 4 (92 days)	Yearly
		lb/day	lb/qtr	lb/qtr	lb/qtr	lb/qtr	lb/year
ROC	0.17 (A)	38.0	3424	3462	3500	3500	13,886
NOx	0.40 (B)	89.5	8057	8147	8236	8236	32,676
SO2	0.29 (C)	64.9	5841	5906	5971	5971	23,689
PM10	0.113 (D)	25.3	2276	2301	2327	2327	9,231
PM2.5	0.113 (D)	25.3	2276	2301	2327	2327	9,231
CO	2.55 (B)	570.7	51364	51935	52506	52506	208,311
GHG (F)	55.06 lb/Mcf	43.4 (F) ton/day	3,906 (F) ton/qtr	3,949 (F) ton/qtr	3,993 (F) ton/qtr	3,993 (F) ton/qtr	15,841 (F) ton/yr
GHG (F)	0.001 lb/Mcf	0.0008 ton/day	0.1 ton/qtr	0.1 ton/qtr	0.1 ton/qtr	0.1 ton/qtr	0.4 ton/yr

- (A) Emission factor for ROC is a value requested by the permittee.
- (B) Emission factors for NOx and CO are SMAQMD BACT determinations.
- (C) Emission factor for SO2 is a value requested by the permittee and is 95% of the previous SMAQMD BACT determination.
- (D) Emission factor for PM10 is a value requested by the permittee and is 95% of the previous SMAQMD BACT determination.
- (E) Maximum Allowable Emissions are based on 4,230 hp, 24 hours/day and the number of days in each calendar quarter. Yearly emissions are equal to the cumulative quarterly emissions.
- (F) The potential to emit for GHG is based on the best available CO<sub>2e</sub> emission factor at the time the permit action was taken and a fuel usage rate of 1,094 scfm. Should the

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emission factor change, the potential to emit will be modified accordingly.

The emission factor for total GHG (55.06 lb/mcf) is based on Appendix A of CARB'S Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (CCR, Title 17, Subchapter 10, Article 2, Sections 95100 TO 95133). It includes combustion byproducts (CH<sub>4</sub>, CO<sub>2</sub> and N<sub>2</sub>O) but it does not include pass-through CO<sub>2</sub> or fugitive GHG emissions.

The emission factor for non-biogenic GHG (0.001 lb/mcf) ) is based on Appendix A of CARB'S Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (CCR, Title 17, Subchapter 10, Article 2, Sections 95100 TO 95133) It includes the non-CO<sub>2</sub> combustion byproducts (CH<sub>4</sub>, and N<sub>2</sub>O) but does not include combustion CO<sub>2</sub> or pass-through CO<sub>2</sub> or fugitive GHG emissions.

4. Combined emissions from the Landfill Gas Air Pollution Control System equipment (5 IC engines and 2 landfill gas flares) shall not exceed the following:

**[Basis: SMAQMD Rule 202]**

- P/O 23110 Landfill Gas Flare No. 1 and  
 P/O 23111 Landfill Gas Flare No. 2 and  
 P/O 23112 IC engine No. 1 and  
 P/O 23113 IC engine No. 2 and  
 P/O 23114 IC engine No. 3 and  
 P/O 23115 IC engine No. 4 and  
 P/O 23116 IC engine No. 5

Pollutant	Maximum Allowable Emissions (B)				
	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter	Annually tons/year
ROC	34,573	34,958	35,320	35,320	70.1
NOx	43,151	43,631	44,110	44,110	87.5
SO2	44,698	45,195	45,715	45,715	90.7
PM10	13,350	13,501	13,648	13,648	27.1
CO	219,798	222,258	224,715	224,715	445.7
GHG (A)	85,109.75 ton/qtr	85,109.75 ton/qtr	85,109.75 ton/qtr	85,109.75 ton/qtr	340,439

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Pollutant	Maximum Allowable Emissions (B)				
	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter	Annually tons/year
GHG (A)	6,104.5 ton/qtr	6,104.5 ton/qtr	6,104.5 ton/qtr	6,104.5 ton/qtr	24,418

(A) The potential to emit for GHG is based on the best available emission factors at the time the permit action was taken, the maximum allowed fuel usage rate (10,470 cfm; 5,000 cfm for the flares and 5,470 cfm for the engines), a gas composition of 50% CH<sub>4</sub> and 50% CO<sub>2</sub>, 98% CH<sub>4</sub> control for the flare and a heat content of 500 Btu/scf of landfill gas. Should the emission factors change, the potential to emit will be modified accordingly.

The CO<sub>2</sub> (52.03 kg/MMBtu), CH<sub>4</sub> (0.9 g/MMBtu) and N<sub>2</sub>O (0.1 g/MMBtu) emission factors and global warming potentials used for total GHG calculations are based on Appendix A of CARB'S Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (CCR, Title 17, Subchapter 10, Article 2, Sections 95100 TO 95133). The total GHG emissions include combustion byproducts (CH<sub>4</sub>, CO<sub>2</sub> and N<sub>2</sub>O), pass-through CO<sub>2</sub> and uncontrolled CH<sub>4</sub> emissions, calculated as CO<sub>2</sub>e.

The CH<sub>4</sub> (0.9 g/MMBtu) and N<sub>2</sub>O (0.1 g/MMBtu) emission factors and global warming potentials used for non-biogenic GHG calculations are based on Appendix A of CARB'S Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (CCR, Title 17, Subchapter 10, Article 2, Sections 95100 TO 95133). It includes the non-CO<sub>2</sub> combustion byproducts (CH<sub>4</sub>, and N<sub>2</sub>O) and uncontrolled CH<sub>4</sub> emissions but does not include combustion CO<sub>2</sub> or pass-through CO<sub>2</sub> emissions, calculated as CO<sub>2</sub>e. Biogenic CO<sub>2</sub> emissions are currently deferred.

(B) Quarterly emissions are based on 24 hours/day and the actual number of days in each calendar quarter. Annual emissions are the sum of the quarterly emissions.

5. Combined emissions from the 5 IC engines only (excluding the 2 landfill gas flares) shall not exceed the following:  
**[Basis: SMAQMD Rule 202]**

P/O 23112 IC engine No. 1 and  
 P/O 23113 IC engine No. 2 and  
 P/O 23114 IC engine No. 3 and  
 P/O 23115 IC engine No. 4 and  
 P/O 23116 IC engine No. 5

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Pollutant	Maximum Annual Allowable Emissions (A) tons/year
NOx	79.8

(A) The NOx emissions from the five IC engines are limited by the amount of ERCs provided from sources other than the SMAQMD Priority Reserve Bank Essential Public Services Account. The 7.72 tons of NOx ERCs leased from the Essential Public Services Account (see Condition No. 15) are not allowed to be used for on-site power generation by SMAQMD Rule 205 Section 102.1.

**EQUIPMENT OPERATION AND MONITORING REQUIREMENT**

6. Only landfill gas shall be combusted by IC Engines Nos. 1, 2, 3, 4 and 5.  
**[Basis: SMAQMD Rule 202]**
7. Landfill gas combusted by the IC engines must be routed through a treatment system.
  - A. Treatment system, as interpreted by U.S. EPA, consists of:
    - i. filtering through a 10 micron filter, and
    - ii. compression, and
    - iii. dewatering.
  - B. Approval of the Kiefer Landfill treatment system is contained in the 04-22-2004 letter from Douglas McDaniel, Acting Chief, Air Enforcement, U.S. EPA Region 9 to Gregory Gratz, Derenzo and Associates, on behalf of Kiefer Landfill.  
**[Basis: SMAQMD Rule 202]**
8. The sulfur content of the landfill gas combusted in each engine shall not exceed 16 grains per 100 scf measured as hydrogen sulfide.  
**[Basis: SMAQMD Rule 202]**
9. A sampling port, or other method approved by the SMAQMD Air Pollution Control Officer, shall be installed at the inlet landfill gas line to the IC engines.
  - A. The sampling port shall be located so that an accurate volume flow measurement can be performed.  
**[Basis: SMAQMD Rule 202]**
10. The IC engine exhaust stack sample ports shall be permanent, accessible and located and constructed as per applicable U.S. EPA, CARB and U.S. OSHA requirements.  
**[Basis: SMAQMD Rule 202]**

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11. Each IC engine shall be equipped with a non-resetting totalizing hour meter.  
**[Basis: SMAQMD Rule 202]**
12. An in-stack continuous emission monitoring system (CEMS), that has been approved by the SMAQMD Air Pollution Control Officer, shall be installed, operated and maintained in each IC engine exhaust stack.
  - A. The CEMS shall monitor and record the concentration of nitrogen oxides, carbon monoxide and oxygen.
  - B. The CEMS shall be installed and operated in compliance with the U.S. EPA Monitoring Requirements specified in 40 CFR 60.13.
  - C. The CEMS shall comply with the U.S. EPA Performance Specifications specified in 40 CFR 60 Appendix B, Performance Specifications 2, 3 and 4 (if CO 0-100 ppm) and 4a (if CO 0-200 ppm).
  - D. The CEMS shall comply with the U.S. EPA Quality Assurance Procedures specified in 40 CFR 60 Appendix F.
  - E. The DAS shall have the capability of expressing the measured NO<sub>x</sub> and CO emissions in terms of parts per million by volume dry (ppmvd) corrected to 15% O<sub>2</sub>.
  - F. The DAS shall record NO<sub>x</sub> and CO emissions in the engineering units defined by the Permit to Operate.
  - G. The DAS shall record all data in compliance with U.S. EPA Quality Assurance Procedures specified in 40 CFR 60 Appendix F.
  - H. The CEMS and DAS shall monitor and collect a minimum of data as follows:
    - i. Obtain at least two data points per hour in order to calculate a valid 1-hour arithmetic average. 40 CFR 60.13(e)(2) requires CEMS to complete at least one cycle of operation (sampling, analyzing and data recording) for each 15-minute period.
    - ii. Obtain valid 1-hour averages for 95 percent of the annual operating hours. An operating hour is any hour the IC engine combusts any landfill gas fuel.

**[Basis: SMAQMD Rule 202]**

**RECORDKEEPING AND REPORTING REQUIREMENTS**

13. The following records shall be continuously maintained onsite for the most recent five year period and shall be made available to the SMAQMD Air Pollution Control Officer upon

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request. Quarterly and yearly records shall be made available for inspection within 30 days of the end of the previous reporting period.

**[Basis: SMAQMD Rule 202]**

Frequency	Information to be recorded
At all times	A. Permit number of each IC engine B. Manufacturer, model number and rating in horsepower of each IC engine. C. Continuously monitored NOx, CO and O2 emission concentrations for each IC engine as required by Condition No. 12. D. Most recent source test report.
Upon Occurrence	E. Whenever a period containing a NOx or CO short-term excursion occurs (as defined in Condition No. 1(D)): <ul style="list-style-type: none"> <li>i. The date and time of the period containing the NOx or CO short-term excursion.</li> <li>ii. The monitored NOx concentration during the period containing the NOx short-term excursion.</li> <li>iii. The monitored CO concentration during the period containing the CO short-term excursion.</li> </ul>
Quarterly	F. Comparison of the actual emissions from the Landfill Gas Air Pollution Control System equipment (5 IC engines and 2 LFG flares) with the maximum allowable emissions in Condition No. 4. (lb/quarter) G. Number of periods that contain a short-term NOx excursion. H. Number of periods that contain a short-term CO excursion.

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Frequency	Information to be recorded
Yearly	I. Comparison of the actual emissions from the Landfill Gas Air Pollution Control System equipment (5 IC engines and 2 LFG flares) with the maximum allowable emissions in Condition No. 4. (tons/year)  J. Comparison of the actual emissions from the 5 IC engines only (excluding the 2 LFG flares) with the maximum allowable emissions in Condition No. 5. (tons/year)

**EMISSION REDUCTION CREDIT (ERC) REQUIREMENTS**

**14. For SMAQMD Rule 202 New Source Review purposes:**

The permittee shall surrender (and has surrendered - See Condition No. 18) ROC ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of Landfill Gas Air Pollution Control System ROC emissions:

**[Basis: SMAQMD Rule 202]**

Equipment	Amount of ROC Emissions for which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Landfill Gas Air Pollution Control system consisting of: 1. P/O 23110 Landfill Gas Flare No. 1 2. P/O 23111 Landfill Gas Flare No. 2 3. P/O 23112 IC engine No. 1 4. P/O 23113 IC engine No. 2 5. P/O 23114 IC engine No. 3 6. P/O 23115 IC engine No. 4 7. P/O 23116 IC engine No. 5	3726	3768	3809	3809

**15. For SMAQMD Rule 202 New Source Review purposes:**

The permittee shall surrender (and has surrendered - See Condition No. 19) NOx ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of Landfill Gas Air Pollution Control System NOx emissions:

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[Basis: SMAQMD Rule 202]

Equipment	Amount of NOx Emissions for which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Landfill Gas Air Pollution Control system consisting of: 1. P/O 23110 Landfill Gas Flare No. 1 2. P/O 23111 Landfill Gas Flare No. 2 3. P/O 23112 IC engine No. 1 4. P/O 23113 IC engine No. 2 5. P/O 23114 IC engine No. 3 6. P/O 23115 IC engine No. 4 7. P/O 23116 IC engine No. 5	20,484	20,711	20,938	20,938

**16. For U.S. EPA Pollution Control Project purposes:**

The permittee shall surrender (and has surrendered - See Condition No. 20) NOx ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of Landfill Gas Air Pollution Control System NOx emissions:

[Basis: SMAQMD Rule 202]

Equipment	Amount of NOx Emissions for which ERCs are to be Provided (A) (B) tons/year
Landfill Gas Air Pollution Control system consisting of: 1. P/O 23110 Landfill Gas Flare No. 1 2. P/O 23111 Landfill Gas Flare No. 2 3. P/O 23112 IC engine No. 1 4. P/O 23113 IC engine No. 2 5. P/O 23114 IC engine No. 3 6. P/O 23115 IC engine No. 4 7. P/O 23116 IC engine No. 5	87.5

(A) The requirement for these ERCs is a result of U.S. EPA's Pollution Control Project offsetting policy:

- i. U.S. EPA excludes the project from Federal New Source Review rules if it qualifies as a Pollution Control Project.

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- ii. The project qualifies as a Pollution Control Project if it is environmentally beneficial.
  - iii. The project is environmentally beneficial if all NOx emissions from the project are offset.
- (B) The amount of ERCs to be provided is not in addition to the amount specified in Condition No. 15.

17. The permittee shall surrender (and has surrendered - See Condition No. 21) PM10 ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of Landfill Gas Air Pollution Control System PM10 emissions:  
**[Basis: SMAQMD Rule 202]**

Equipment	Amount of PM10 Emissions for which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Landfill Gas Air Pollution Control system consisting of: 1. P/O 23110 Landfill Gas Flare No. 1 2. P/O 23111 Landfill Gas Flare No. 2 3. P/O 23112 IC engine No. 1 4. P/O 23113 IC engine No. 2 5. P/O 23114 IC engine No. 3 6. P/O 23115 IC engine No. 4 7. P/O 23116 IC engine No. 5	5,799	5,909	6,016	6,016

18. The following ROC ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 14:

See Table in Condition No. 21 associated with Landfill Gas Flare No. 1.

19. The following NOx/ROC ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 15:

**[Basis: SMAQMD Rule 202]**

See Table in Condition No. 22 associated with Landfill Gas Flare No. 1.

**V.D. EQUIPMENT SPECIFIC REQUIREMENTS - (5) IC ENGINES, LANDFILL GAS CONTROL AND PRIME POWER, DRIVING ELECTRICAL GENERATORS**

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20. The following NOx/ROC ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the U.S. EPA requirement stated in Condition No. 16:  
**[Basis: SMAQMD Rule 202]**

See Table in Condition No. 23 associated with Landfill Gas Flare No. 1.

21. The following PM10 ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 17:  
**[Basis: SMAQMD Rule 202]**

See Table in Condition No. 24 associated with Landfill Gas Flare No. 1.

**EMISSION TESTING REQUIREMENTS:**

22. An emission test shall be conducted each calendar year to demonstrate compliance with Condition Nos. 1, 3, 4, 5 and 8:
- A. Submit a Source Test Plan to the SMAQMD Air Pollution Control Officer for approval at least 30 days before the source test is to be performed.
  - B. Notify the SMAQMD Air Pollution Control Officer at least 7 days prior to the source test date if the date has changed from that approved in the Source Test Plan.
  - C. Submit the Source Test Report to the SMAQMD Air Pollution Control Officer within 60 days from the completion of the source test.
  - D. Each IC engine shall be operated at full load (>90%) during the source test.
  - E. The source test shall be conducted at the exhaust of each IC engine (except for hydrogen sulfide test which shall use the fuel inlet) and shall include a test for:
    - i. Reactive organic compounds, ROC
    - ii. Nitrogen oxides, NOx
    - iii. Carbon monoxide, CO
    - iv. Particulate Matter less than 10um, PM10
    - v. Hydrogen sulfide, H2S, (fuel inlet)
  - F. A Relative Accuracy Test of the Continuous Emissions Monitoring System, as specified

**V.D. EQUIPMENT SPECIFIC REQUIREMENTS - (5) IC ENGINES, LANDFILL GAS CONTROL AND PRIME POWER, DRIVING ELECTRICAL GENERATORS**

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in Condition No. 12.B, shall be performed at the time of the yearly emissions test.

- G. The SMAQMD Air Pollution Control Officer may waive the annual source test requirement for up to two years and for up to two of the five IC engines if, in the SMAQMD Air Pollution Control Officer's sole judgment, three consecutive source test results indicate that an adequate compliance margin has been maintained.
- i. If there is a subsequent exceedance of the emission limits during a source test, the frequency of testing for all five IC engines shall return to annually.
  - ii. In no case shall an IC engine operate more than 8,760 hours or 5 years without a source test as required by SMAQMD Rule 412 Stationary Internal Combustion Engines Located at Major Stationary Sources of NOx, Section 402 Source Testing Frequency (NOx, CO and NMHC).

**[Basis: SMAQMD Rule 202]**

**V.E. EQUIPMENT SPECIFIC REQUIREMENTS - GASOLINE DISPENSING FACILITY**

**A. EQUIPMENT DESCRIPTION:** The information specified under this section is enforceable by the SMAQMD, U.S. EPA and the public.

The requirements specified under the following sections apply to the following equipment:

**Gasoline Dispensing Facility**

P/O No.: 20266

Phase I Equipment		Phase II Equipment	
Number of and Capacity of Tanks	Phase I Type	Number of Nozzles	Phase II Type
(1) 2,500 gallon (aboveground)	Two Point	1	Balance

**B. EQUIPMENT SPECIFIC FEDERALLY ENFORCEABLE REQUIREMENTS:** The requirements specified under this section are enforceable by the SMAQMD, U.S. EPA and the public.

**EMISSION LIMIT REQUIREMENTS**

1. Emissions from the gasoline dispensing facility shall not exceed the following limits:  
**[Basis: SMAQMD Rule 202]**

Pollutant	Emission Factor (A) lb/1000 gallons throughput	Maximum Allowable Emissions (B) lb/quarter
ROC	1.52	46

(A) Emission factor for ROC from *Gasoline Service Station Industrywide Risk Assessment Guidelines*, California Air Pollution Control Officer's Association (CAPCOA), December 1997, Appendix A, Scenario 3B.

(B) Based on a maximum gasoline throughput of 30,000 gallons/quarter.

**EQUIPMENT OPERATION AND MONITORING REQUIREMENTS**

2. The gasoline dispensing facility throughput shall not exceed the following limit:  
**[Basis: SMAQMD Rule 202]**

Equipment	Maximum Allowable Gasoline Throughput gallons/calendar quarter
Gasoline Dispensing Facility	30,000

### V.E. EQUIPMENT SPECIFIC REQUIREMENTS - GASOLINE DISPENSING FACILITY

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3. The gasoline dispensing facility shall be maintained, and operated in accordance with the following California Air Resources Board (CARB) Executive Orders. Section 41954(f) of the California Health and Safety Code prohibits the installation of any vapor control system unless the system has been certified by the state board.

**[Basis: SMAQMD Rule 448 and Rule 449]**

Number	Description
G-70-116	Convault Aboveground Gasoline Tank with Phase I and II Vapor Recovery

4. Any person(s) engaged in the installation, alteration, repair, or replacement of a vapor recovery system or its components shall meet the following requirements.
- A. Are certified by the International Code Council (ICC) for vapor recovery system testing and repair.
  - B. If required by the CARB Executive Order, be certified by the system manufacturer.
  - C. Maintain and make available any and all certifications as required in paragraph a and b.

**[Basis: SMAQMD Rule 448 and Rule 449]**

5. The requirements of Condition No. 4 shall not apply to the owner/operator of a gasoline dispensing facility or his/her direct employee(s) when replacing any defective nozzles, hoses and breakaways with new or carb certified re-manufactured components of the same make and model, or alternatives specifically identified in the latest applicable CARB Executive Order. Any replacement allowed under this condition must be performed in accordance with the applicable CARB Executive Order.

**[Basis: SMAQMD Rule 448 and Rule 449]**

6. The vapor recovery system shall be operated in accordance with the applicable CARB Certification, the manufacturer's specification and maintained to be leak-free, vapor tight and in good working order.

**[Basis: SMAQMD Rule 448 and Rule 449]**

7. All vapor recovery system equipment shall be operated and maintained without any of the applicable defects listed in the Vapor Recovery Equipment Defects (VRED) list (California Administrative Code Title 17, Part III, Chapter 1, Subchapter 8, Section 94006).

**[Basis: SMAQMD Rule 448 and Rule 449]**

8. The owner/operator of a vapor recovery system shall have available an Operation and Maintenance manual. The manual shall be kept on-site and made available to any person who operates, inspects, maintains, repairs or test the vapor recovery equipment as well as the SMAQMD Air Pollution Control Officer upon request. The manual shall, at a minimum, include the following current information:

- A. All applicable CARB Executive Orders, approval letters and SMAQMD permits.

## **V.E. EQUIPMENT SPECIFIC REQUIREMENTS - GASOLINE DISPENSING FACILITY**

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- B. Manufacturer's manual(s) for installation, operation and maintenance procedures as required to be provided by CARB Certification Procedure CP-201 and any additional instruction provided by the manufacturer.
  - C. System and/or component testing requirements, including test schedules and passing criteria for each of the standard tests listed in SMAQMD Rules 448 and 449.
  - D. Protocol for performing daily maintenance inspections, including the components to be inspected and the defects requiring repair.  
**[Basis: SMAQMD Rule 448 and Rule 449]**
9. The owner/operator of a gasoline dispensing facility shall, at a minimum, verify the following on each day that fuel is delivered:
- A. The spill container is clean and does not contain gasoline. The spill containment drain valve is seating properly.
  - B. The fill caps and gaskets are not missing, damaged or loose.
  - C. The spring-loaded submerged fill pipe seals properly against the coaxial fitting.
  - D. The dry break (poppet valve) is not missing or damaged.
  - E. The submerged fill pipe is not missing or damaged.  
**[Basis: SMAQMD Rule 448]**
10. Maintenance inspections, except as provided in Condition No. 11, shall be conducted for each day the Phase II vapor recovery system is operated to ensure that vapor recovery system components that are verifiable through direct measurement or observation are in proper working order. Any equipment with a major defect listed in the VRED list (California Code of Regulations, Title 17, Part III, Chapter 1, Subchapter 8, Section 94006), shall be removed from service and tagged to ensure that it is not used until it is repaired and brought into compliance before being returned to service.  
**[Basis: SMAQMD Rule 449]**
11. The maintenance inspection requirements in Condition No. 10 shall not be required on Saturdays, Sundays and holidays for gasoline dispensing facilities with a six month average monthly gasoline throughput of less than 100,000 gallons.  
**[Basis: SMAQMD Rule 449]**
12. The owner or operator of a vapor recovery system shall ensure that the removal from service of one component of a vapor recovery system with multiple components will not result in gasoline liquid or vapors entering the atmosphere.  
**[Basis: SMAQMD Rule 448 and Rule 449]**

## **V.E. EQUIPMENT SPECIFIC REQUIREMENTS - GASOLINE DISPENSING FACILITY**

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13. Defects discovered during the maintenance inspection and repaired in accordance with Title 17, Division 3, Subchapter 7.5, Chapter 1, Section 93101 of the California Code of Regulations such that after repair gasoline liquid or vapors do not enter the atmosphere shall not constitute a violation of SMAQMD Rule 449.

**[Basis: SMAQMD Rule 448 and Rule 449]**

14. Gasoline shall not be handled in a manner that would result in vapor release to the atmosphere for an extended period of time. Measures to be taken include, but are not limited to the following:

- A. Minimize gasoline spills.
- B. Clean up spills as expeditiously as practicable.
- C. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use.
- D. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

**[Basis: 40 CFR 63.11116]**

### **NOTIFICATION AND REPORTING REQUIREMENTS**

15. A. At least 7 days prior to the performance of reverification testing, the owner or operator shall notify the SMAQMD Air Pollution Control Officer of the exact date and time of the applicable test.
- B. If the vapor recovery system fails any of the applicable tests and the necessary repairs are performed that same day, the owner or operator may retest the vapor recovery system on the same day without re-notification, provided that the reasons for the test failure and any repairs performed are properly documented in the test reports and repair records.

**[Basis: SMAQMD Rule 202]**

16. Results of the reverification tests shall be delivered to the SMAQMD Air Pollution Control Officer within thirty days of completion of the test. The test results shall contain the following information:

- A. Name, location, address and telephone number of the facility tested and SMAQMD permit number.
- B. Name, address and phone number of the person or company performing the test.
- C. Date of the test.

**V.E. EQUIPMENT SPECIFIC REQUIREMENTS - GASOLINE DISPENSING FACILITY**

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- D. Test data.
- E. Number of nozzles tested.
- F. Number of tanks tested.
- G. Statement of Pass or fail.  
**[Basis: SMAQMD Rule 202]**

**RECORDKEEPING REQUIREMENTS**

17. The following record shall be continuously maintained onsite for the most recent five year period and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Monthly and quarterly records shall be made available for inspection within 30 days of the end of the previous month or quarter, respectively.  
**[Basis: SMAQMD Rule 202]**

Frequency	Information to be recorded
At all times	<ul style="list-style-type: none"> <li>A. Maintenance records for the vapor recovery system.</li> <li>B. Repair records for the vapor recovery system.</li> <li>C. Maintenance inspection reports.</li> <li>D. Records of repairs performed as a result of defects discovered during daily maintenance inspections.</li> <li>E. Performance test results.</li> <li>F. Reverification of performance test results.</li> </ul>
Daily	<ul style="list-style-type: none"> <li>G. Daily maintenance inspection reports including at least the following:                             <ul style="list-style-type: none"> <li>i. Date and time of inspection.</li> <li>ii. List of defects from the California Code of Regulations, Title 17, Part III, Chapter 1, Subchapter 8, Section 94006 that are applicable to the vapor recovery equipment and have a verification procedure of "direct observation" or "direct measurement".</li> <li>iii. Notation by person performing inspection whether each defect is present.</li> <li>iv. Description of any defects discovered.</li> </ul> </li> </ul>

**V.E. EQUIPMENT SPECIFIC REQUIREMENTS - GASOLINE DISPENSING FACILITY**

Frequency	Information to be recorded
	v. Action taken upon discovery of a defect. vi. Name and signature of person performing inspection.
Monthly	H. Total gasoline throughput. (gallons/month)
Quarterly	I. Total gasoline throughput (gallons/quarter)

**EMISSION TESTING REQUIREMENTS**

18. The following performance and reverification tests shall be conducted and passed once every 12 months.

A. Static pressure (leak decay) test according to the CARB Test Procedure TP-201.3B.

B. Any other tests required by an applicable CARB Executive Order.

**[Basis: SMAQMD Rule 448]**

19. Any person who conducts performance and reverification tests shall meet all of the following:

A. Be certified by the International Code Council (ICC) for vapor recovery system testing and repair.

B. If required by the CARB Executive Order, be certified by the system manufacturer.

C. Maintain and make available any and all certifications as required in Condition No. 21.A and B.

**[Basis: SMAQMD Rule 448]**

**EMISSION REDUCTION CREDIT (ERC) REQUIREMENTS**

20. ROC ERCs shall be surrendered (and have been surrendered - see Condition No. 21) to the SMAQMD Air Pollution Control Officer to offset the following amount of project ROC emissions for SMAQMD Rule 202 New Source Review purposes:

**[Basis: SMAQMD Rule 202]**

Equipment	Amount of Project ROC Emissions For Which ERCs Are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Gasoline Dispensing	45	46	46	46

**V.E. EQUIPMENT SPECIFIC REQUIREMENTS - GASOLINE DISPENSING FACILITY**

21. The following ROC ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 20:

**[Basis: SMAQMD Rule 202]**

Emission Reduction Credit Certificate No.	Face Value of ROC ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project ROC Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
C07-1010 SMAQMD Community Bank Lease <b>Lease expires on: 07-01-2012</b>	46	46	46	46	N/A	1.0:1	46	46	46	46

- (A) Emission Reduction Credits in the amount specified shall be provided at all times that the permitted equipment is allowed to operate:
- i. The permit shall expire on the date that the ERCs expire unless replacement ERCs have been provided as specified in (ii) below.
  - ii. When ERCs are provided that have an expiration date, **and prior to their expiration only**, the permittee can provide replacement ERCs. The permittee shall submit a valid permit application to modify the current SMAQMD Permit to Operate and shall pay the required permit fees. The application shall be filed prior to the ERC expiration date such that sufficient time is available to SMAQMD staff to process the application.
    - a. The application shall be evaluated in accordance with the requirements of the current SMAQMD Rule 202 - New Source Review and Rule 204 - Emission Reduction Credits.
    - b. ERCs shall be required in an amount which is the larger of:
      - (1) The originally specified amount, or
      - (2) The amount specified by the current SMAQMD Rule 202 - New Source Review at the time of replacement.
  - iii. Failure to provide replacement ERCs prior to the expiration date of the current ERCs associated with the SMAQMD Permit to Operate shall require that the permittee reapply for an Authority to Construct and Permit to Operate for the subject equipment if continued operation of the equipment is desired. The equipment will be subject to Best Available Control Technology requirements and offsetting requirements of SMAQMD Rule 202 - New Source Review at the time of repermitting.

**V.F. EQUIPMENT SPECIFIC REQUIREMENTS - TROMMEL SCREEN AND IC ENGINE (TSA)**

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**A. EQUIPMENT DESCRIPTION:** The information specified under this section is enforceable by the SMAQMD, U.S. EPA and the public.

The requirements specified under the following sections apply to the following equipment:

**Trommel Screen**

P/O No. 19188  
 Manufacturer: Powerscreen  
 Model: 830

**IC Engine (TSA) (driving Trommel Screen)**

P/O No. 21262  
 Make: Deutz  
 Model: BF6L914C  
 Serial No.: 8738125  
 Engine BHP: 158 HP at 2150 rpm  
 Model Year: 2005  
 EPA Family No.: 5DZXL06.5037  
 Emissions Certification: Tier 2  
 Engine Type: 4-cycle, turbocharged  
 Fuel: CARB diesel  
 Equipment Driven: Trommel screen

**B. EQUIPMENT SPECIFIC FEDERALLY ENFORCEABLE REQUIREMENTS:** The requirements specified under this section are enforceable by the SMAQMD, U.S. EPA and the public.

**EMISSION LIMIT REQUIREMENTS**

1. Emissions from the Trommel Screen shall not exceed the following limits:  
**[Basis: SMAQMD Rule 202]**

P/O 19188 Trommel Screen

Pollutant	Emission Factor (A) lb/ton	Maximum Allowable Emissions (B)				
		Daily lb/day	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter
ROC	NA	NA	NA	NA	NA	NA
NOx	NA	NA	NA	NA	NA	NA
SO2	NA	NA	NA	NA	NA	NA
PM10	0.01	4.5	334	334	334	334

**V.F. EQUIPMENT SPECIFIC REQUIREMENTS - TROMMEL SCREEN AND IC ENGINE (TSA)**

Pollutant	Emission Factor (A) lb/ton	Maximum Allowable Emissions (B)				
		NA	NA	NA	NA	NA
CO	NA	NA	NA	NA	NA	NA

- (A) Emission factor for PM10 is from the Title V permit evaluation conducted by the BAAQMD for a similar trommel screen process at a composting facility.  
 (B) Maximum Allowable Emissions are based on 450 tons/day and 33,436 tons/quarter.

2. Emissions from the IC Engine (TSA) shall not exceed the following limits:  
**[Basis: SMAQMD Rule 202]**

P/O 21262 IC Engine (TSA)

Pollutant	Emission Factor (A) grams/hp-hr	Maximum Allowable Emissions (B)			
		Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter
ROC	0.27	41	41	41	41
NOx	4.33	661	661	661	661
SO2	0.05	8	8	8	8
PM10	0.16	24	24	24	24
CO	0.89	137	137	137	137

- (A) The emission factor for ROC was supplied by Duetz USA because the CARB Off Road Engine Certification only lists the emission factor for the combined NMHC+NOx.  
 (B) The emission factor for NOx was supplied by Duetz USA because the CARB Off Road Engine Certification only lists the emission factor for the combined NMHC+NOx.  
 (C) The emission factor for SO2 is based on 0.015% sulfur by weight in the diesel fuel.  
 (D) The emission factor for PM10 is from the CARB Off Road Engine Certification for this engine model and family U-R-013-0155, dated 09-20-2004.  
 (E) The emission factor for CO is from the CARB Off Road Engine Certification for this engine model and family U-R-013-0155, dated 09-20-2004.  
 (F) Maximum Allowable Emissions are based on 158 hp, 24 hours/day and 439 hours/calendar quarter.

**EQUIPMENT OPERATION REQUIREMENTS**

3. The IC Engine (TSA) shall not remain at the same location for more than 12 consecutive months.  
**[Basis: SMAQMD Rule 202]**

**V.F. EQUIPMENT SPECIFIC REQUIREMENTS - TROMMEL SCREEN AND IC ENGINE (TSA)**

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4. The maximum amount of material processed in the Trommel Screen shall not exceed:  
**[Basis: SMAQMD Rule 202]**

Equipment	Maximum Allowable Material Processed	
	tons/day	tons/quarter
Trommel Screen	450	33,436

5. The IC Engine (TSA) shall not operate more than the following hours:  
**[Basis: SMAQMD Rule 202]**

Equipment	Maximum Allowable Operating Hours hours/quarter
IC Engine (TSA)	439.0

6. Material processed by the Trommel Screen shall have sufficient moisture to comply with SMAQMD Rule 401 for visible emissions limits.  
**[Basis: SMAQMD Rule 202]**
7. The IC Engine (TSA) shall be equipped with a non-resetting totalizing hour meter.  
**[Basis: SMAQMD Rule 202]**
8. The IC Engine (TSA) shall be fueled with:
- A. CARB diesel fuel, or
  - B. Alternative diesel fuel that has been verified through the CARB Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines, or
  - C. CARB diesel fuel utilizing fuel additives that have been verified through the CARB Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines.
- [Basis: SMAQMD Rule 202]**

**V.F. EQUIPMENT SPECIFIC REQUIREMENTS - TROMMEL SCREEN AND IC ENGINE (TSA)**

**RECORDKEEPING AND REPORTING REQUIREMENTS**

9. The following records shall be continuously maintained onsite for the most recent five year period and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Quarterly records shall be made available for inspection within 30 days of the end of the previous quarter.

**[Basis: SMAQMD Rule 202]**

Frequency	Information to be recorded
When IC Engine (TSA) is moved	A. The location that the IC Engine (TSA) is moved from. B. The location that the IC Engine (TSA) is moved to. C. The length of time the IC Engine (TSA) operated at the prior location.
Daily	D. The amount of material processed by the trommel screen. (tons/day)
Quarterly	E. The amount of material processed by the trommel screen. (tons/quarter) F. The number of hours that the IC Engine (TSA) operated. (hours/quarter)

**EMISSION REDUCTION CREDIT (ERC) REQUIREMENTS**

10. ERCs shall be surrendered (and have been surrendered – see Condition No. 11) to the SMAQMD Air Pollution Control Officer to offset the following amount of project emissions for SMAQMD Rule 202 New Source Review purposes :

**[Basis: SMAQMD Rule 202]**

Equipment	Amount of Project Emissions for Which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Trommel Screen				
PM10	334	334	334	334
IC Engine (TSA)				
ROC	41	41	41	41

**V.F. EQUIPMENT SPECIFIC REQUIREMENTS - TROMMEL SCREEN AND IC ENGINE (TSA)**

Equipment	Amount of Project Emissions for Which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
NOx	661	661	661	661
SO2	24	24	24	24
PM10	24	24	24	24

11. The following ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 10:

**[SMAQMD Permit to Operate Nos. 19188, 21262]**

Emission Reduction Credit Certificate No.	Face Value of ERC Certificates Surrendered lb/quarter				Offset Ratio	Value Applied to the Project Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4		Qtr 1	Qtr 2	Qtr 3	Qtr 4
<b>Trommel Screen</b>									
2005-04 (A) Placer APCD Lincoln Brand Feeds									
PM10	501	501	501	501	1.5:1	334	334	334	334
<b>IC Engine (TS)</b>									
No. P081005 (B) Essential Public Services Account Lease SMAQMD Priority Reserve Bank <b>Lease Expires on: 10-01-2012</b>									
ROC	50	50	50	50	1.0:1	50	50	50	50
NOx	861	861	861	861	1.3:1	662	662	662	662
SO2	24	24	24	24	1.0:1	24	24	24	24

**V.F. EQUIPMENT SPECIFIC REQUIREMENTS - TROMMEL SCREEN AND IC ENGINE (TSA)**

Emission Reduction Credit Certificate No.	Face Value of ERC Certificates Surrendered lb/quarter				Offset Ratio	Value Applied to the Project Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4		Qtr 1	Qtr 2	Qtr 3	Qtr 4
2005-04 (A) Placer APCD Lincoln Brand Feeds									
PM10	42	42	42	42	1.5:1	28	28	28	28

(A) The single PCAPCD ERC certificate No. 2005-04 is shown here split into two certificates for comparison with the ERC requirements of Condition No. 10 for the Trommel Screen and IC Engine.

NOTE: The amount of permanent PM10 ERCs provided for the IC engine is enough to offset 28 lb PM10/quarter. This is more than the 24 lb PM10/quarter maximum allowable emissions of the IC engine. This difference resulted from the permittee replacing the original IC engine (P/O 17921) in 2006 with the current IC engine (P/O 21262) but requesting in the 2006 permit action that the ERCs be transferred with no change to their value.

- (B) ERCs in the amount specified shall be provided at all times that the permitted equipment is allowed to operate:
1. The Permit to Operate, after issuance, shall expire on the date the ERCs expire unless replacement ERCs have been provided as specified in (2) below.
  2. When ERCs are provided that have an expiration date, **and prior to their expiration only**, the permittee can provide replacement ERCs. The permittee shall submit a valid permit application to modify the current Permit to Operate and shall pay the required permit fees. The application shall be filed prior to the ERC expiration date such that sufficient time is available to SMAQMD staff to process the application.
    - (a) The application shall be evaluated in accordance with the requirements of the current SMAQMD Rule 202 - New Source Review and SMAQMD Rule 204 - Emission Reduction Credits.
    - (b) ERCs shall be required in an amount which is the larger of:
      - (1) The originally specified amount, or
      - (2) The amount specified by the current SMAQMD Rule 202 - New Source Review at the time of replacement.
  3. Failure to provide replacement ERCs prior to the expiration date of the current ERCs associated with the Permit to Operate shall require that the permittee reapply for an Authority to Construct and Permit to Operate for the subject equipment if continued operation of the equipment is desired. The equipment will be subject to Best Available Control Technology requirements and offsetting requirements of SMAQMD Rule 202 - New Source Review at the time of repermitting.

**V.F. EQUIPMENT SPECIFIC REQUIREMENTS - TROMMEL SCREEN AND IC  
ENGINE (TSA)**

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**EMISSION TESTING REQUIREMENTS**

There are no periodic emission testing requirements.

**V.G. EQUIPMENT SPECIFIC REQUIREMENTS - TROMMEL SCREEN AND IC ENGINE (TSB)**

**A. EQUIPMENT DESCRIPTION:** The information specified under this section is enforceable by the SMAQMD, U.S. EPA and the public.

The requirements specified under the following sections apply to the following equipment:

**Trommel Screen**

P/O No. 22922  
 Manufacturer: McCloskey  
 Model: 733 RE  
 Serial No.: 80169

**IC Engine (TSB) (driving Trommel Screen)**

P/O No. 22923  
 Make: Caterpillar/Perkins  
 Model: 2478  
 ID No: 66614944  
 EPA Family No.: APKXL06.6PJ1  
 Manufactured: 5/6/10  
 Engine Type: 4-cycle  
 Aspiration: Turbocharged  
 Engine BHP: 225 at 2200 RPM  
 Displacement: 6.6 liter (402.8 Cubic inch)  
 Fuel: Diesel  
 Equipment Driven: Trommel screen

**B. EQUIPMENT SPECIFIC FEDERALLY ENFORCEABLE REQUIREMENTS:** The requirements specified under this section are enforceable by the SMAQMD, U.S. EPA and the public.

**EMISSION LIMIT REQUIREMENTS**

1. Emissions from the Trommel Screen shall not exceed the following limits:

**[Basis: SMAQMD Rule 202]**

P/O 22922 Trommel Screen

Pollutant	Emission Factor (A) lb/ton	Maximum Allowable Emissions (B)				
		Daily lb/day	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter
ROC	NA	NA	NA	NA	NA	NA
NOx	NA	NA	NA	NA	NA	NA
SO2	NA	NA	NA	NA	NA	NA

**V.G. EQUIPMENT SPECIFIC REQUIREMENTS - TROMMEL SCREEN AND IC ENGINE (TSB)**

Pollutant	Emission Factor (A) lb/ton	Maximum Allowable Emissions (B)				
		9.9	293	293	293	293
PM10	0.01	9.9	293	293	293	293
CO	NA	NA	NA	NA	NA	NA

(A) Emission factor for PM10 is from the Title V permit evaluation conducted by the BAAQMD for a similar trommel screen process at a composting facility.  
 (B) Maximum Allowable Emissions are based on 990 tons/day and 29,250 tons/quarter.

2. Emissions from the IC Engine (TSB) shall not exceed the following limits:  
**[Basis: SMAQMD Rule 202]**

P/O 22923 IC Engine (TSB)

Pollutant	Emission Factor (A) grams/hp-hr	Maximum Allowable Emissions (B)				
		Daily lb/day	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter
ROC	1.14	13.6	294	294	294	294
NOx	2.76	32.9	712	712	712	712
ROC+NOx	2.76	32.9	712	712	712	712
SO2	0.005	0.1	1	1	1	1
PM10	0.13	1.5	34	34	34	34
PM2.5	0.13	1.5	34	34	34	34
CO	1.12	13.3	289	289	289	289
GHG	1.13 lb CO <sub>2</sub> e /hp-hr	3.1 ton/day	66 ton/qtr	66 ton/qtr	66 ton/qtr	66 ton/qtr

(A) The emission factor for ROC and NOx combined is 2.76 g/hp-hr from the CARB Off Road Engine Certification (CARB Executive Order U-R-022-015), dated January 16, 2009.

The emission factor used for NOx is 2.76 g/hp-hr because it is the worst case emission factor.

The emission factor used for ROC is from AP-42 Table 3.3-1 (10/96).

The emission factors for PM10 and CO are from the CARB Off Road Engine Certification, dated January 16, 2009. PM2.5 is assumed to be equal to PM10.

The emission factor for SO2 is based on 0.0015% sulfur by weight in the diesel fuel.

The emission factor for GHG is the CO<sub>2</sub>e emission factor as per Appendix A of CARB's Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (CCR, Title 17, Subchapter 10, Article 2, sections 95100 to 95133).

**V.G. EQUIPMENT SPECIFIC REQUIREMENTS - TROMMEL SCREEN AND IC ENGINE (TSB)**

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(B)Maximum Allowable Emissions are based on 225 hp, 24 hours/day and 520 hours/calendar quarter.

**EQUIPMENT OPERATION REQUIREMENTS**

3. The IC Engine (TSB) shall not remain at the same location for more than 12 consecutive months.

**[Basis: SMAQMD Rule 202]**

4. The maximum amount of material processed in the Trommel Screen shall not exceed:

**[Basis: SMAQMD Rule 202]**

Equipment	Maximum Allowable Material Processed	
	tons/day	tons/quarter
Trommel Screen	990	29,250

5. The IC Engine (TSB) shall not operate more than the following hours:

**[Basis: SMAQMD Rule 202]**

Equipment	Maximum Allowable Operating Hours hours/quarter
IC Engine (TSB)	520

6. Material processed by the Trommel Screen shall have sufficient moisture to comply with SMAQMD Rule 401 for visible emissions limits.

**[Basis: SMAQMD Rule 202]**

7. The IC Engine (TSB) shall be equipped with a non-resetting totalizing hour meter.

**[Basis: SMAQMD Rule 202]**

8. The IC engine (SS1) shall be fueled with:

A. CARB diesel fuel, or

B. Alternative diesel fuel that has been verified through the CARB Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines, or

C. CARB diesel fuel utilizing fuel additives that have been verified through the CARB Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines.

**[Basis: SMAQMD Rule 202]**

**V.G. EQUIPMENT SPECIFIC REQUIREMENTS - TROMMEL SCREEN AND IC ENGINE (TSB)**

**RECORDKEEPING AND REPORTING REQUIREMENTS:**

9. The following records shall be continuously maintained onsite for the most recent five year period and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Quarterly records shall be made available for inspection within 30 days of the end of the previous quarter.

**[Basis: SMAQMD Rule 202]**

Frequency	Information to be recorded
When equipment is moved	A. The location that the equipment is moved from. B. The location that the equipment is moved to. C. The length of time the equipment operated at the prior location.
Daily	D. The amount of material processed by the trommel screen. (tons/day)
Quarterly	E. The amount of material processed by the trommel screen. (tons/quarter)

**EMISSION REDUCTION CREDIT (ERC) REQUIREMENTS**

10. ERCs shall be surrendered (and have been surrendered – see Condition No. 11) to the SMAQMD Air Pollution Control Officer to offset the following amount of project emissions for SMAQMD Rule 202 New Source Review purposes :

**[Basis: SMAQMD Rule 202]**

Equipment	Amount of Project Emissions for Which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
<b>Trommel Screen</b>				
PM10	293	293	293	293
<b>IC Engine (TSB)</b>				
NOx	712	712	712	712
ROC	294	294	294	294
PM10	34	34	34	34
SO2	1	1	1	1

**V.G. EQUIPMENT SPECIFIC REQUIREMENTS - TROMMEL SCREEN AND IC ENGINE (TSB)**

11. The following ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 10:

**[Basis: SMAQMD Rule 202]**

Emission Reduction Credit Certificate No.	Face Value of ERC Certificates Surrendered lb/quarter				Offset Ratio	Value Applied to the Project Emission Liability lb/quarter				
	Qtr 1	Qtr 2	Qtr 3	Qtr 4		Qtr 1	Qtr 2	Qtr 3	Qtr 4	
<b>Trommel Screen</b>										
Essential Public Services Account SMAQMD Priority Reserve Bank P11-1004 <b>5 year Lease</b> <b>Expires on:</b> <b>04-01-2016</b>										
PM10	293	293	293	293	1:1	293	293	293	293	
<b>IC Engine (TSB)</b>										
Essential Public Services Account SMAQMD Priority Reserve Bank P11-1004 <b>5 year Lease</b> <b>Expires on:</b> <b>04-01-2016</b>										
NOx	712	712	712	712	1:1	712	712	712	712	
ROC	294	294	294	294		294	294	294	294	
PM10	31	31	31	31	1:1	31	31	31	31	
SO2	1	1	1	1	1:1	1	1	1	1	

(A)ERCs in the amount specified shall be provided at all times that the permitted equipment is allowed to operate:

1. The Permit to Operate, after issuance, shall expire on the date the ERCs expire unless replacement ERCs have been provided as specified in (2) below.

## **V.G. EQUIPMENT SPECIFIC REQUIREMENTS - TROMMEL SCREEN AND IC ENGINE (TSB)**

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2. When ERCs are provided that have an expiration date, **and prior to their expiration only**, the permittee can provide replacement ERCs. The permittee shall submit a valid permit application to modify the current Permit to Operate and shall pay the required permit fees. The application shall be filed prior to the ERC expiration date such that sufficient time is available to SMAQMD staff to process the application.
  - (a) The application shall be evaluated in accordance with the requirements of the current SMAQMD Rule 202 - New Source Review and SMAQMD Rule 204 - Emission Reduction Credits.
  - (b) ERCs shall be required in an amount which is the larger of:
    - (1) The originally specified amount, or
    - (2) The amount specified by the current SMAQMD Rule 202 - New Source Review at the time of replacement.
3. Failure to provide replacement ERCs prior to the expiration date of the current ERCs associated with the Permit to Operate shall require that the permittee reapply for an Authority to Construct and Permit to Operate for the subject equipment if continued operation of the equipment is desired. The equipment will be subject to Best Available Control Technology requirements and offsetting requirements of SMAQMD Rule 202 - New Source Review at the time of repermitting.

### **EMISSION TESTING REQUIREMENTS**

There are no periodic emission testing requirements.

**V.H. EQUIPMENT SPECIFIC REQUIREMENTS - IC ENGINE (SS1), AUXILIARY ON STREET SWEEPER**

**A. EQUIPMENT DESCRIPTION:** The information specified under this section is enforceable by the SMAQMD, U.S. EPA and the public.

The requirements specified under the following sections apply to the following equipment:

**IC Engine, Auxiliary on Street Sweeper (SS1), non-road, portable, prime power use**

P/O No. 23105  
 Manufacturer: John Deere  
 Model: 4045TF270  
 Serial No.: PE4045T533975  
 Type: 4 cycle, turbocharged  
 Displacement: 4.5 liters  
 Horsepower: 99 hp at 2500 rpm  
 Fuel: Diesel  
 EPA Family No.: 5JDXL04.5083  
 Use: Auxiliary on street sweeper powering vacuum system and brushes

**B. EQUIPMENT SPECIFIC FEDERALLY ENFORCEABLE REQUIREMENTS:** The requirements specified under this section are enforceable by the SMAQMD, U.S. EPA and the public.

**EMISSION LIMIT REQUIREMENTS**

- Emissions from the IC Engine (SS1) shall not exceed the following limits:  
**[Basis: SMAQMD Rule 202]**

P/O 23105 IC Engine (SS1)

Pollutant	Emission Factor (A) grams/hp-hr	Maximum Allowable Emissions (B) lb/quarter		
		Daily lb/day	Quarterly lb/quarter	Yearly lb/year
ROC	0.34	1.8	39	156
NOx	3.98	20.9	452	1,808
SO2	0.005	0.0	19	4
PM10	0.18	0.9	20	80
PM2.5	0.18	0.9	20	80
CO	1.04	5.5	118	472
GHG	511.75	1.3 ton/day	29 ton/quarter	116 ton/year

(A) Emission factors for ROC and NOx were supplied by John Deere because the CARB Off Road Engine Certification only lists the emission factor for the combined NMHC+NOx. The emission factors for PM10 and CO are from the CARB Off Road Engine Certification for this engine model and family dated 10-04-2004. PM2.5 is assumed to be equal to

## V.H. EQUIPMENT SPECIFIC REQUIREMENTS - IC ENGINE (SS1), AUXILIARY ON STREET SWEEPER

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PM10. The emission factor for SO<sub>2</sub> is based on 0.0015% sulfur by weight in the diesel fuel. The emission factor for GHG is the CO<sub>2e</sub> emission factor as per Appendix A of CARB's Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (CCR, Title 17, Subchapter 10, Article 2, sections 95100 to 95133). All emission limits are in English units.

- (B) Maximum Allowable Emissions are based on 99 hp and 520 hours/calendar quarter. The yearly emissions are based on the cumulative quarterly emissions.

### EQUIPMENT OPERATION REQUIREMENTS

2. The IC Engine (SS1) shall not remain at the same location for more than 12 consecutive months.

**[Basis: SMAQMD Rule 202]**

3. The IC engine (SS1) shall not operate more than the following hours:

**[Basis: SMAQMD Rule 202]**

Equipment	Maximum Allowable Operating Hours hours/quarter
IC engine (SS1)	520

4. The IC engine (SS1) shall be equipped with a non-resetting totalizing hour meter.

**[Basis: SMAQMD Rule 202]**

5. The IC engine (SS1) shall be fueled with:

A. CARB diesel fuel, or

B. Alternative diesel fuel that has been verified through the CARB Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines, or

C. CARB diesel fuel utilizing fuel additives that have been verified through the CARB Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines.

**[Basis: SMAQMD Rule 202]**

### RECORDKEEPING AND REPORTING REQUIREMENTS:

6. The following records shall be continuously maintained onsite for the most recent five year period and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Quarterly records shall be made available for inspection within 30 days of the end of the previous quarter.

**[Basis: SMAQMD Rule 202]**

**V.H. EQUIPMENT SPECIFIC REQUIREMENTS - IC ENGINE (SS1), AUXILIARY ON STREET SWEEPER**

Frequency	Information to be recorded
Quarterly	A. The number of hours that the IC Engine (SS) operated. (hours/quarter)

**EMISSION REDUCTION CREDIT (ERC) REQUIREMENTS**

7. ERCs shall be surrendered (and have been surrendered - see Condition No. 8) to the SMAQMD Air Pollution Control Officer to offset the following amount of project emissions for SMAQMD Rule 202 New Source Review purposes :

**[Basis: SMAQMD Rule 202]**

Pollutant	Amount of Project Emissions for which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
ROC	39	39	39	39
NOx	452	452	452	452
SO2	19	19	19	19
PM10	20	20	20	20

8. The following ERCs have been surrendered to the SMAQMD Air Pollution Control Officer as required in Condition No. 7:

**[Basis: SMAQMD Rule 202]**

Emission Reduction Credit Certificate No.	Face Value of ERC Certificates Surrendered lb/quarter				Offset Ratio	Value Applied to the Project Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4		Qtr 1	Qtr 2	Qtr 3	Qtr 4
Essential Public Services Account SMAQMD Priority Reserve Bank P11-1009 (A) <b>Lease Expires on: 10-01-2014</b>									
ROC	39	39	39	39	1.0:1	39	39	39	39

**V.H. EQUIPMENT SPECIFIC REQUIREMENTS - IC ENGINE (SS1), AUXILIARY ON STREET SWEEPER**

Emission Reduction Credit Certificate No.	Face Value of ERC Certificates Surrendered lb/quarter				Offset Ratio	Value Applied to the Project Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4		Qtr 1	Qtr 2	Qtr 3	Qtr 4
NOx	452	452	452	452	1.0:1	452	452	452	452
SO2	19	19	19	19	1.0:1	19	19	19	19
PM10	20	20	20	20	1.0:1	20	20	20	20

- (A) Emission Reduction Credits in the amount specified shall be provided at all times that the permitted equipment is allowed to operate:
- i. The permit shall expire on the date that the ERCs expire unless replacement ERCs have been provided as specified in (ii) below.
  - ii. When ERCs are provided that have an expiration date, **and prior to their expiration only**, the permittee can provide replacement ERCs. The permittee shall submit a valid permit application to modify the current Permit to Operate and shall pay the required permit fees. The application shall be filed prior to the ERC expiration date such that sufficient time is available to SMAQMD staff to process the application.
    - a. The application shall be evaluated in accordance with the requirements of the current SMAQMD Rule 202 - New Source Review and SMAQMD Rule 204 - Emission Reduction Credits.
    - b. ERCs shall be required in an amount which is the larger of:
      - (1) The originally specified amount, or
      - (2) The amount specified by the current SMAQMD Rule 202 - New Source Review at the time of replacement.
  - iii. Failure to provide replacement ERCs prior to the expiration date of the current ERCs associated with the Permit to Operate shall require that the permittee reapply for an Authority to Construct and Permit to Operate for the subject equipment if continued operation of the equipment is desired. The equipment shall be subject to Best Available Control Technology requirements and offsetting requirements of SMAQMD Rule 202 - New Source Review at the time of repermitting.

**EMISSION TESTING REQUIREMENTS**

There are no periodic emission testing requirements.

**V.I. EQUIPMENT SPECIFIC REQUIREMENTS - IC ENGINE (SS2), AUXILIARY ON STREET SWEEPER**

**A. EQUIPMENT DESCRIPTION:** The information specified under this section is enforceable by the SMAQMD, U.S. EPA and the public.

The requirements specified under the following sections apply to the following equipment:

**IC Engine (SS2), Auxiliary on Street Sweeper No. 2, non-road, portable, prime power use**

P/O No. 21893

Make: John Deere  
 Model: Model 4045HF280B  
 Serial No.: PE4045L074663  
 Model Year: 2008  
 EPA Family No.: 8JDXL04.5111  
 Emissions Certification: Tier 3  
 Engine Type: 4-cycle  
 Aspiration: Turbocharged  
 Engine BHP: 99 HP at 2400 RPM  
 Displacement: 4.5 liter  
 Fuel: CARB diesel  
 Equipment Driven: Vacuum system and brushes on street sweeper

**B. EQUIPMENT SPECIFIC FEDERALLY ENFORCEABLE REQUIREMENTS:** The requirements specified under this section are enforceable by the SMAQMD, U.S. EPA and the public.

**EMISSION LIMITS:**

1. Emissions from the IC Engine (SS2) shall not exceed the following limits:  
**[Basis: SMAQMD Rule 202]**

Pollutant	Emission Factor grams/hp -hr	Maximum Allowable Emissions (D) lb/quarter			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4
ROC+NOx	3.0 (A)	NA	NA	NA	NA
ROC	1.0 (C)	113	113	113	113
NOx	3.0 (C)	339	339	339	339
SO2	0.05 (B)	6	6	6	6
PM10	0.22 (A)	25	25	25	25
CO	0.67 (A)	76	76	76	76

(A) The emission factors for ROC+NOx, PM10 and CO are from the CARB Off Road Engine Certification for this engine model and family dated 12-14-2007.

**V.I. EQUIPMENT SPECIFIC REQUIREMENTS - IC ENGINE (SS2), AUXILIARY ON STREET SWEEPER**

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- (B) The emission factor for SO<sub>2</sub> is based on 0.015% sulfur by weight in the diesel fuel.
- (C) For the purpose of calculating NO<sub>x</sub> and ROC individually, ROC emissions are assessed at the worse case scenario of the uncontrolled U.S. EPA AP-42 emission factor of 1.0 gram/hp-hr and NO<sub>x</sub> emissions are assessed at the worse case limit of 3.0 gram/hp-hr.
- (D) Maximum Allowable Emissions are based on 99 hp, 24 hours/day and 520 hours/calendar quarter.

**EQUIPMENT OPERATION REQUIREMENTS:**

- 2. The IC Engine (SS2) shall not remain at the same location for more than 12 consecutive months.  
**[Basis: SMAQMD Rule 202]**
- 3. The IC engine (SS2) shall not operate more than the following hours:  
**[Basis: SMAQMD Rule 202]**

Equipment	Maximum Allowable Operating Hours hours/quarter
IC engine (SS2)	520

- 4. The IC engine (SS2) shall be equipped with a non-resetting totalizing hour meter.  
**[Basis: SMAQMD Rule 202]**
- 5. The IC engine (SS2) shall be fueled with:
  - A. CARB diesel fuel, or
  - B. Alternative diesel fuel that has been verified through the CARB Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines, or
  - C. CARB diesel fuel utilizing fuel additives that have been verified through the CARB Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines.**[Basis: SMAQMD Rule 202]**

**RECORDKEEPING AND REPORTING REQUIREMENTS:**

- 6. The following records shall be continuously maintained onsite for the most recent five year period and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Quarterly records shall be made available for inspection within 30 days of the end of the previous quarter.  
**[Basis: SMAQMD Rule 202]**

**V.I. EQUIPMENT SPECIFIC REQUIREMENTS - IC ENGINE (SS2), AUXILIARY ON STREET SWEEPER**

Frequency	Information to be recorded
Quarterly	A. The number of hours that the IC Engine (SS2) operated. (hours/quarter)

**EMISSION REDUCTION CREDIT (ERC) REQUIREMENTS:**

7. ERCs shall be surrendered (and have been surrendered - see Condition No. 8) to the SMAQMD Air Pollution Control Officer to offset the following amount of project emissions for SMAQMD Rule 202 New Source Review purposes :  
**[Basis: SMAQMD Rule 202]**

Pollutant	Amount of Project Emissions for which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
NOx	339	339	339	339
SO2	6	6	6	6
PM10	25	25	25	25

8. The following ERCs have been surrendered to the SMAQMD Air Pollution Control Officer as required in Condition No. 7:  
**[Basis: SMAQMD Rule 202]**

Emission Reduction Credit Certificate No.	Face Value of ERC Certificates Surrendered lb/quarter				Offset Ratio	Value Applied to the Project Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4		Qtr 1	Qtr 2	Qtr 3	Qtr 4
Essential Public Services Account SMAQMD Priority Reserve Bank P09-1013 (A) <b>4 Year Lease Expires on: 04-01-2013</b>									
NOx	339	339	339	339	1.0:1	339	339	339	339
SO2	6	6	6	6	1.0:1	6	6	6	6

**V.I. EQUIPMENT SPECIFIC REQUIREMENTS - IC ENGINE (SS2), AUXILIARY ON STREET SWEEPER**

Emission Reduction Credit Certificate No.	Face Value of ERC Certificates Surrendered lb/quarter				Offset Ratio	Value Applied to the Project Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4		Qtr 1	Qtr 2	Qtr 3	Qtr 4
PM10	25	25	25	25	1.0:1	25	25	25	25

- (A) Emission Reduction Credits in the amount specified shall be provided at all times that the permitted equipment is allowed to operate:
1. The permit shall expire on the date that the ERCs expire unless replacement ERCs have been provided as specified in (ii) below.
  2. When ERCs are provided that have an expiration date, **and prior to their expiration only**, the permittee can provide replacement ERCs. The permittee shall submit a valid permit application to modify the current Permit to Operate and shall pay the required permit fees. The application shall be filed prior to the ERC expiration date such that sufficient time is available to SMAQMD staff to process the application.
    - a. The application shall be evaluated in accordance with the requirements of the current SMAQMD Rule 202 - New Source Review and SMAQMD Rule 204 - Emission Reduction Credits.
    - b. ERCs shall be required in an amount which is the larger of:
      - (1) The originally specified amount, or
      - (2) The amount specified by the current SMAQMD Rule 202 - New Source Review at the time of replacement.
  3. Failure to provide replacement ERCs prior to the expiration date of the current ERCs associated with the Permit to Operate shall require that the permittee reapply for an Authority to Construct and Permit to Operate for the subject equipment if continued operation of the equipment is desired. The equipment shall be subject to Best Available Control Technology requirements and offsetting requirements of SMAQMD Rule 202 - New Source Review at the time of repermitting.

**EMISSION TESTING REQUIREMENTS**

There are no periodic emission testing requirements.

**V.J. EQUIPMENT SPECIFIC REQUIREMENTS - IC ENGINE, STANDBY,  
 POWERING AN EMERGENCY  
 ELECTRICAL GENERATOR**

**A. EQUIPMENT DESCRIPTION:** The information specified under this section is enforceable by the SMAQMD, U.S. EPA and the public.

The requirements specified under the following sections apply to the following equipment:

**IC Engine, Standby, Powering an emergency electrical generator**

P/O No. 22419

Make: Detroit Diesel  
 Model: 6063HV35  
 Serial No.: 06R1044275  
 Model Year: 2010  
 EPA Family No.: ADDXL14.0VLD  
 Emissions Certification: Tier 3  
 Engine Type: 4-cycle  
 Aspiration: Turbocharged and Aftercooled  
 Engine BHP: 550 HP at 1800 RPM  
 Displacement: 855 cu. In.  
 Equipment Driven: emergency electrical generator

**B. EQUIPMENT SPECIFIC FEDERALLY ENFORCEABLE REQUIREMENTS:** The requirements specified under this section are enforceable by the SMAQMD, U.S. EPA and the public.

**EMISSION LIMIT REQUIREMENTS**

- The emissions from the IC engine shall not exceed the following limits:  
**[Basis: SMAQMD Rule 202]**

Pollutant	Emission Factor (A) g/hp-hr	Maximum Allowable Emissions (B)		
		lb/day	lb/quarter	lb/year
ROC	1.0	29.1	243	243
NO <sub>x</sub>	3.0	87.3	728	728
ROC + NO <sub>x</sub> (C)	3.0	87.3	728	728
SO <sub>x</sub>	0.005	0.1	1	1
PM10	0.149	4.3	36	36
CO	2.6	75.7	631	631
GHG	22.35 lb CO <sub>2</sub> e/gal	7 ton/day	60 ton/qtr	60 ton/yr

(A) Emission factors for ROC, NO<sub>x</sub>, ROC + NO<sub>x</sub>, and CO are based on the District's BACT standards (Tier 3 standard). PM emissions are based on T-BACT standards. SO<sub>x</sub> emissions are based on 0.0015% Sulfur by weight in the fuel. GHG emission factor is the CO<sub>2</sub>e emission factor as per Appendix A of CARB's Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (CCR, Title 17, Subchapter 10, Article 2,

## V.J. EQUIPMENT SPECIFIC REQUIREMENTS - IC ENGINE, STANDBY, POWERING AN EMERGENCY ELECTRICAL GENERATOR

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sections 95100 to 95133).

- (B) Emissions based on 550 hp, 200 hours/quarter and 200 hours/year of operation.
- (C) The engine is required to comply with the combined NO<sub>x</sub> + ROC emission standard. For the purpose of calculating NO<sub>x</sub> and ROC individually, ROC emissions are assessed at the worse case scenario of the uncontrolled AP-42 emission factor of 1.0 g/bhp-hr and NO<sub>x</sub> emissions are assessed at the worse case limit of 3.0 g/bhp-hr. BACT is only triggered for individual pollutants.

### EQUIPMENT OPERATION REQUIREMENTS

2. The IC engine shall operate only for the following purposes and shall not operate more than the following hours:

**[Basis: SMAQMD Rule 202]**

Type of Operational Hours	Maximum Allowable Operation	
	hours/quarter	Hours/year
Maintenance Purposes (A)	50	50
All Operation – Maintenance and Emergency (B)	200	200

- (A) Maintenance purposes is defined as: The operation of an IC engine in order to preserve the integrity of the IC engine and its associated generator, the facility's electrical distribution system or when required by the District to verify compliance with the applicable rules and regulations.
- (B) Emergency is defined as: when electrical service from the serving utility is interrupted by an unforeseeable event.

3. The IC engine shall be equipped with a non-resetting hour meter, with a minimum display capability of 9,999 hours, to ensure compliance with condition numbers 1 and 2.

**[Basis: SMAQMD Rule 202]**

4. Upon request of the Air Pollution Control Officer or designee, once each year, during daylight hours, the IC engine shall be run at maximum anticipated load, from a cold start condition, for observation of compliance with opacity limitations.

**[Basis: SMAQMD Rule 202]**

### V.J. EQUIPMENT SPECIFIC REQUIREMENTS - IC ENGINE, STANDBY, POWERING AN EMERGENCY ELECTRICAL GENERATOR

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5. The IC engine shall be fueled with CARB diesel fuel, or an alternative diesel fuel that meets the requirements of the verification procedure (as codified in Title 13, CCR, sections 2700-2710), or an alternative fuel, or CARB diesel fuel used with fuel additives that meets the requirements of the verification procedure, or any combination of fuels listed in this condition.

**[Basis: SMAQMD Rule 202]**

#### RECORD KEEPING

6. The following record shall be continuously maintained onsite for the most recent five year period and shall be made available to the Air Pollution Control Officer upon request. Quarterly and yearly records shall be made available within 30 days following the end of the quarter and year respectively.

**[Basis: SMAQMD Rule 202]**

Frequency	Information to be recorded
When Operated	A. Date. B. Purpose – either maintenance (M) or emergency (E). C. Number of hours of operation.
Monthly	D. Total number of hours of operation for each operating mode (hours/month).
Quarterly	E. Total number of hours of operation for each operating mode (hours/quarter).
Yearly	F. Total number of hours of operation for each operating mode (hours/year).
All Fuel Deliveries	G. Retain fuel purchase records that account for all fuel purchased for use in the engine: Fuel purchase records shall include: 1. Identification of type of fuel (i.e. CARB diesel, alternative diesel, etc.). 2. Quantity of fuel purchased. 3. Date of fuel purchase. 4. Signature of person receiving fuel. 5. Signature of fuel provider indicating that fuel was delivered.

#### EMISSION TESTING REQUIREMENTS

There are no periodic emission testing requirements.

## VI. INSIGNIFICANT EMISSIONS UNITS

The following systems are considered insignificant emissions units and are not subject to equipment specific requirements. However, these units are required to comply with all applicable general requirements.

The permittee may supplement, modify or remove insignificant emissions units without requesting a Title V permit modification as long as the basis for the insignificant emissions unit designation remains valid. The list of insignificant emissions units shall be updated when a Title V permit modification occurs.

Equipment Description	Basis for the Determination of Insignificant Emissions Unit is made based on SMAQMD "List and Criteria", Part B, Section 5 modified April 2001.
Vehicles used to transport passengers or freight	I. General criteria for insignificant activities. a. Not subject to a preconstruction permit.
Small internal combustion engines used for welders, compressors and generators.	II.B.2 Any piston-type IC engine with a manufacturer's maximum continuous rating of no more than 50 bhp.
Diesel fuel tank	II.H.1 Any equipment used exclusively for the storage of unheated organic material with: a. An initial boiling point of 302 degrees F or greater; or b. A vapor pressure of no more than 0.1 psia.
Naptha/water storage tank	II.H.3 Any equipment with a capacity of no more than 6,077 gallons used for the storage of unheated organic liquids with a vapor pressure of no more than 1.5 psia.
Small degreasers	II.O.2 Unheated, non-conveyorized solvent rinsing tanks or unheated non-conveyorized coating dip tanks of 100 gallons or less and not using a halogenated solvent.
Maintenance shop	I. General criteria for insignificant activities. a. General repair and maintenance.
Air Stripping System	I. General criteria for insignificant activities. a. Emits no more than 0.5 tons/year of a HAP or 2 tons/year of a regulated pollutant.

## **VII. ACRONYMS, ABBREVIATIONS AND UNITS OF MEASURE**

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Acronyms, abbreviations and units of measure used in this permit are defined as follows:

### **ASTM**

American Society for Testing and Materials

### **BACT**

Best Available Control Technology.

### **CAA**

The federal Clean Air Act.

### **CARB**

California Air Resources Board.

### **CFC**

Chloro-fluoro-carbons. A class of compounds responsible for destroying ozone in the upper atmosphere.

### **CFR**

The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

### **CO**

Carbon monoxide.

### **CO<sub>2</sub>**

Carbon dioxide.

### **ERC**

Emission reduction credit.

### **Federally Enforceable**

All limitations and conditions which are enforceable by the Administrator of the U.S. EPA including those requirements developed pursuant to 40 CFR Part 51, Subpart I (NSR), Part 52.21 (PSD), Part 60 (NSPS), Part 61 (NESHAPs), Part 63 (HAP) and Part 72 (Permits Regulation, Acid Rain) including limitations and conditions contained in operating permits issued under a U.S. EPA approved program that has been incorporated into the California SIP.

### **NESHAP**

National Emission Standards for Hazardous Air Pollutants (see 40 CFR Parts 61 and 63).

### **NO<sub>x</sub>**

Nitrogen oxides.

## **VII. ACRONYMS, ABBREVIATIONS AND UNITS OF MEASURE**

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### **NSPS**

New Source Performance Standards. U.S. EPA standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the federal Clean Air Act and implemented by 40 CFR Part 60 and SMAQMD Regulation 8.

### **NSR**

New Source Review. A federal program for pre-construction review and permitting of new and modified sources of pollutants for which criteria have been established in accordance with Section 108 of the Federal Clean Air Act. Mandated by Title I of the federal Clean Air Act and implemented by 40 CFR Parts 51 and 52 and SMAQMD Rule 202. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

### **O<sub>2</sub>**

Oxygen.

### **Offset Requirement**

A New Source Review requirement to provide federally enforceable emission offsets for the emissions from a new or modified source. Applies to emissions of ROC, NO<sub>x</sub>, SO<sub>2</sub> and PM<sub>10</sub>.

### **PM**

Particulate matter.

### **PM<sub>10</sub>**

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns.

### **PSD**

Prevention of Significant Deterioration. A federal program for permitting new and modified sources of those air pollutants for which the SMAQMD is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the federal Clean Air Act and implemented by 40 CFR Part 52.

### **ROC**

Reactive organic compounds.

### **SIP**

State Implementation Plan. CARB and SMAQMD programs and regulations approved by U.S. EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the federal Clean Air Act.

### **SMAQMD**

Sacramento Metropolitan Air Quality Management District.

### **SO<sub>2</sub>**

Sulfur dioxide.

## **VII. ACRONYMS, ABBREVIATIONS AND UNITS OF MEASURE**

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### **Title V**

Title V of the federal Clean Air Act. Title V requires the SMAQMD to operate a federally enforceable operating permit program for major stationary sources and other specified sources.

### **TSP**

Total suspended particulate.

### **U.S. EPA**

The federal Environmental Protection Agency.

### **VOC**

Volatile Organic Compounds.

### **UNITS OF MEASURE:**

BTU	=	British Thermal Unit
cfm	=	cubic feet per minute
cm	=	centimeter
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inch
kg	=	kilogram
max	=	maximum
m <sup>2</sup>	=	square meter
min	=	minute
mm	=	millimeter
MM	=	million
ppmv	=	parts per million by volume
ppmw	=	parts per million by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
quarter	=	calendar quarter
RVP	=	Reid vapor pressure
scfm	=	standard cubic feet per minute
yr	=	year