

**AIR QUALITY**  
MANAGEMENT DISTRICT**AUTHORITY TO CONSTRUCT**

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**A/C NO.:** 21893 **ISSUED BY:** \_\_\_\_\_  
Bruce Nixon, P.E.

**DATE ISSUED:** April XX, 2009

**DATE EXPIRES:** April XX, 2011

**ISSUED TO:** Kiefer Landfill  
Department Of Waste Management and Recycling  
Municipal Services Agency  
County Of Sacramento

**LOCATION:** 12701 Kiefer Boulevard, Sloughhouse

**DESCRIPTION:** IC Engine (SS2), auxiliary on street sweeper No. 2, non-road, portable, prime power use:  
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

**Authority to Construct Conditions****START-UP REQUIREMENTS**

- S1. Upon installation of the equipment authorized in this Authority to Construct, the owner/operator shall contact the Sacramento Metropolitan Air Quality Management District (SMAQMD) at (916) 874-4800 to schedule a start-up inspection.
- S2. This Authority to Construct shall serve as a temporary Permit to Operate provided that:
- A. The SMAQMD has been notified for a start-up inspection.
  - B. The equipment installed matches the equipment authorized in the Authority to Construct.

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- C. The equipment is operated in compliance with all conditions listed within the Authority to Construct.

### GENERAL REQUIREMENTS

1. The equipment shall be properly maintained.
2. The SMAQMD Air Pollution Control Officer and/or authorized representatives, upon the presentation of credentials, shall be permitted:
  - A. To enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of this Authority to Construct, and
  - B. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this Authority to Construct, and
  - C. To inspect any equipment, operation or method required in this Authority to Construct, and
  - D. To sample emissions from the source or require samples to be taken.
3. This Authority to Construct does not authorize the emission of air contaminants in excess of those allowed by Division 26, Part 4, Chapter 3, of the California Health and Safety Code or the Rules and Regulations of the SMAQMD.
4. A legible copy of this Authority to Construct shall be maintained on the premises with the equipment.

### EMISSION LIMITS REQUIREMENTS

5. The IC engine (SS2) shall not discharge into the atmosphere any visible air contaminants other than uncombined water vapor, for a period or periods aggregating more than three minutes in any one hour, which are as dark or darker than Ringelmann No. 1 or equivalent to or greater than 20% opacity.
6. Emissions from the IC engine (SS2) shall not exceed the following limits:

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
SOx	0.05 (B)	6	6	6	6
PM10	0.22 (A)	25	25	25	25

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Pollutant	Emission Factor grams/hp-hr	Maximum Allowable Emissions (D) lb/quarter			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4
CO	0.67 (A)	76	76	76	76

(A) The emission factors for ROC+NO<sub>x</sub>, PM<sub>10</sub> and CO are from the CARB Off Road Engine Certification for this engine model and family dated 12-14-2007.

(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

7. The IC engine (SS2) shall not remain at the same location for more than 12 consecutive months.
8. The IC engine (SS2) shall not operate more than the following hours:

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

9. The IC engine (SS2) shall be equipped with a non-resetting totalizing hour meter.
10. 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.

### RECORDKEEPING AND REPORTING REQUIREMENTS

11. 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.

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

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### EMISSION REDUCTION CREDITS (ERCs) REQUIREMENTS

12. The permittee shall surrender ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of project emissions:

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
SOx	6	6	6	6
PM10	25	25	25	25

13. The following ERCs have been proposed to be leased/surrendered to the SMAQMD Air Pollution Control Officer as required in Condition No. 12:

**The ERCs shall be leased/surrendered prior to operating the proposed equipment.**

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 Community Bank PXX-XXXX (A) <b>Lease Expires on: XX-XX-20XX</b>									
NOx	339	339	339	339	1:1	339	339	339	339
SOx	6	6	6	6	1:1	6	6	6	6
PM10	25	25	25	25	1:1	25	25	25	25

(A) Emission Reduction Credits to offset the amount specified in Condition No. 12 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 -

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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

No periodic emission testing requirements.

Your application for this air quality Authority to Construct was evaluated for compliance with Sacramento Metropolitan Air Quality Management District (SMAQMD), state and federal air quality rules. The following listed rules are those that are most applicable to the operation of your equipment. Other rules may also be applicable.

<u>SMAQMD Rule No.</u>	<u>Rule Title</u>
201	General Permit Requirements
202	New Source Review
301	Permit Fees - Stationary Sources
401	Ringelmann Chart
402	Nuisance
406	Specific Contaminants
420	Sulfur Content Of Fuels
CARB ATCM	Airborne Toxic Control Measure For Diesel Particulate Matter From Portable Engines Rated at 50 Horsepower and Greater [California Code of Regulations, Title 17, begin at Section 93116]

In addition, the conditions on this Authority to Construct may reflect some, but not all, requirements of these rules. There may be other conditions that are applicable to the operation of your equipment. Future changes in prohibitory rules may establish more stringent requirements which may supersede the conditions listed here.

For further information please consult your SMAQMD Rulebook or contact the SMAQMD for assistance.

August 28, 2006

Tim Israel  
Department of Waste Management and Recycling  
County of Sacramento  
9850 Goethe Road  
Sacramento, CA 95827-3561

Dear Mr. Israel:

Please refer to your application to construct the equipment described on the attached Authority to Construct.

The Authority to Construct is hereby granted with specified conditions. If you have any questions regarding the permit conditions contact the District. There is an appeal process for any disputed permit conditions, but you must file an appeal within 30 days of the Authority to Construct being issued.

**After this 30 day period, commencing operation under this Authority to Construct shall be deemed acceptance of all the specified conditions.**

This, however, does not constitute a Permit to Operate nor does it guarantee that the proposed equipment will comply with air pollution control regulations.

If you have any questions please contact me.

Sincerely,

Bruce Nixon, P.E.  
Air Quality Engineer  
phone: (916) 874-4855 (Mon. - Tue.)  
fax: (916) 874-4899  
email: [bnixon@airquality.org](mailto:bnixon@airquality.org)

Enclosure