

**Lane Regional Air Protection Agency  
Standard Air Contaminant Discharge Permit**

**Review Report  
Addendum No. 2  
Non-NSR/PSD Simple Technical Permit Modification**

**Delta Sand & Gravel Co.**  
999 Division Avenue  
Eugene, Oregon 97404  
Website: <https://deltasg.com/>

**Permit No. 202119**

**Source Information:**

Primary SIC	1442
Secondary SIC	--
Primary NAICS	212321
Secondary NAICS	--
Public Notice Category	I

Source Category (LRAPA section 37-8010 Table 1)	B:61. Rock, Concrete or Asphalt Crushing both portable and stationary 25,000 or more tons/year crushed
	C.3. Source electing to maintain the netting basis

**Compliance and Emissions Monitoring Requirements:**

Unassigned emissions	N
Emission credits	N
Compliance schedule	N
Source test [date(s)]	See Permit

COMS	N
CEMS	N
CPMS	N
Ambient monitoring	N

**Reporting Requirements**

Annual report (due date)	Feb 15
Emission fee report (due date)	N
Semi-Annual Report (due date)	N
Greenhouse Gas Report (due date)	N

Quarterly report (due dates)	N
Monthly report (due dates)	N
Excess emissions report	Y
Other reports	N

**Air Programs**

NSPS (list subparts)	IIII
NESHAP (list subparts)	N
CAM	N
Regional Haze (RH)	N
TACT	N
40 CFR part 68 Risk Management	N
Synthetic Minor (SM)	N
SM-80	N

Title V	N
Major FHAP Source	N
Federal Major Source	N
Type A State New Source Review	N
Type B State New Source Review	N
Prevention of Significant Deterioration (PSD)	N
Nonattainment New Source Review (NNSR)	N

### **Permittee Identification**

1. Delta Sand & Gravel Co. (Delta or facility) owns and operates a stationary rock crushing facility located at 999 Division Avenue, Eugene Oregon.

### **General Background**

2. Delta owns and operates a rock mining and crushing facility.

The facility operates six (6) rock crushers with ancillary equipment which are regulated by this permit. The types of rock crushers are two (2) cone crushers, one roll crusher, two (2) impact crushers, and a jaw crusher. The 350 ton/hour impact crusher was installed in 1995. The impact crushers are equipped with water sprayers to reduce emissions. The impact crushers are also outfitted with an air recirculation system designed to entrain dust in the processed material until water can be applied.

A jaw crusher was installed in 2016. The jaw crusher is rated at 450 tons per hour and is powered by a constant-speed diesel engine that came as part of the crusher. The diesel engine was manufactured in 2008 by Caterpillar and is rated at 440 hp (328 kW). There is no diesel particulate filter, and the engine was installed according to the manufacturer's emission-related instructions.

A diesel-fired reciprocating internal combustion engine (RICE) that was manufactured in 1970 by Caterpillar and is rated at 750 horsepower is used to power the screening plant located in Cell 5 at the facility.

The ancillary equipment for processing the crushed materials consists of screens, conveyors, and storage piles. The screens and conveyors are outfitted with water sprayers/sprinklers to reduce fugitive emissions.

### **Reason for Permit Action and Fee Basis**

3. Delta applied for a modification to their current permit to replace the 1970 Caterpillar diesel-fired reciprocating internal combustion engine (RICE) with a rated capacity of 750 horsepower with a 2017 Cummins diesel-fired compression ignition internal combustion engine (CI ICE) with a rated capacity of 475 horsepower to power the screening plant.
4. This modification action was designated a Non-PSD/NSR Simple Technical Permit Modification.

### **Attainment Status**

5. Delta is located inside the Eugene-Springfield Air Quality Management Area. The facility is located in an area that has been designated attainment/unclassified for PM<sub>2.5</sub>, ozone (VOC), NO<sub>2</sub>, SO<sub>2</sub>, and Pb and a maintenance area for CO and PM<sub>10</sub>. The facility is located within 100 kilometers of three (3) Class I air quality protection areas: Diamond Peak, Mount Washington and Three Sisters Wilderness areas.

### **Permitting History**

6. LRAPA has reviewed and issued the following permitting actions to this facility since the last permit renewal:

Date(s) Approved/Valid	Permit Action Type	Description
01/03/2020-01/03/2025	Standard ACDP	Renewal
08/10/2023	Modification	Incorporating one (1) diesel generator for the screening plant and an agency-

Date(s) Approved/Valid	Permit Action Type	Description
		initiated action to incorporate unpaved roads and the Jaw Crusher Engine recordkeeping and reporting requirements.
Upon Issuance	Modification	Replacement of screening plant generator (EU: M-86) with new generator (EU: SCE)

### **Emission Unit Descriptions**

7. The emission units (EU) regulated by the permit are the following:

Emission Unit	Emission Units ID	Pollution Control Device
Crushing Plant Operation with six (6) rock crushers with Ancillary Equipment – 500 ton/hour maximum	CPO	Water spray
Jaw Crusher Stationary Engine: 2008 diesel-fired Caterpillar 440 horsepower engine	JCE	None
<b>*Screening Plant Stationary Engine: 2017 diesel-fired Cummins 475 horsepower engine</b>	<b>SCE</b>	None
Unpaved Roads	UPR	Water application, chemical suppressant, gravel application (as applicable) and/or track-out reduction measures
Aggregate Insignificant Activities – Gasoline Dispensing Facility (GDF)	AIA	Submerged filling and work practices

**\*Emission units being added to the permit.**

### **Production and Operating Limits**

8. Emission Unit (EU) SCE newly added to the permit has operating limits of 1,000 hours per year.

### **Performance Standards and Limitations**

9. The facility is subject to the visible emission limitations under subsection 32-030(2). For new combustion sources, no person may emit or allow to be emitted any visible emissions that equal or exceed an average of 20 percent opacity. Compliance is demonstrated through a plant survey of visible emissions using EPA Method 22 to be completed at least once a quarter. The permittee is required to take corrective action if any visible emissions are identified and contact LRAPA or conduct an EPA Method 9 test if the visible emission cannot be eliminated.
10. Emission Unit SCE (EU: SCE) is subject to 40 CFR part 60 subpart IIII – Standard of performance for Stationary Compression Ignition Internal Combustion Engines. This modification inserts the 40 CFR part 63 subpart IIII requirements that apply to the EU: SCE and removes all 40 CFR part 63 subpart ZZZZ requirements.

### **Typically Achievable Control Technology (TACT)**

11. Subsection 32-008(2) requires new units installed or existing emission units modified on or after January 1, 1994, meet TACT if the emission unit meets the following criteria: The emission unit is not subject to Major NSR or Type A State NSR in title 38, and applicable NSPS in title 46, or any other standard applicable to only new or modified sources in title 30, title 33, title 39, or title 46 for the regulated pollutant; the source is required to have a permit; if new, the emission unit has emissions of any criteria pollutant equal to or greater than one (1) ton per year of any criteria pollutant; if modified, the emission unit would have an increase in emissions of any criteria pollutant equal to or greater than one (1) ton per year; and LRAPA determines that the proposed air pollution control devices and emission reduction processes do not represent TACT.
- 11.a. The Cummins generator (EU: SCE) is not subject to TACT because it is subject to an applicable Standard of Performance for New Stationary Sources in title 46.

### **New Source Performance Standards (NSPS)**

12. 40 CFR part 60 subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines is applicable to Delta because the new Cummins generator engine (EU: SCE) was manufactured after the 2007 applicability date for CI ICE.

<b>40 CFR part 60, subpart IIII Citation</b>	<b>Description</b>	<b>Applicable to Source (Yes/No)</b>	<b>Comments</b>	<b>Permit Condition</b>
60.4200	Applicability	Yes	None.	NA
60.4201	Emission standards	Yes	Subject to (e) by reference.	21.a
60.4202	Emission standards	No	None.	NA
60.4203	Emission standards	No	None.	NA
60.4204	Emission standards	Yes	Subject to (b).	21
60.4205	Emission standards	No	None.	NA
60.4206	Emission standards	Yes	None.	22
60.4207	Fuel requirements	Yes	Subject to (b).	21.a.ii.
60.4208	Other requirements	No	None.	NA
60.4209	Monitoring requirements	No	None.	NA
60.4210	Compliance requirements	No	None.	NA
60.4211	Compliance requirements	Yes	Subject to (a), (c) & (g)(2).	23-25
60.4212	Testing requirements	No	None.	NA
60.4213	Test methods	No	None.	NA
60.4214	Notification, reporting, and recordkeeping	Yes	Subject to (a).	26
60.4215	Special requirements	No	None.	NA
60.4216	Special requirements	No	None.	NA
60.4217	Special requirements	No	None.	NA
60.4218	General provisions	No	None.	NA
60.4219	Definitions	Yes	None.	NA

13. 40 CFR part 60 subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines is not applicable to Delta because none of the generator engines are a spark ignition internal combustion engine.

### **National Emission Standards for Hazardous Air Pollutants (NESHAP)**

14. 40 CFR part 63 subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines is applicable to Delta because they operate a stationary RICE at an area source of HAP emissions. Under 40 CFR 63.6590(c)(1), a new stationary RICE located at an area source of HAP emissions must meet the requirements of 40 CFR part 63 subpart ZZZZ by meeting the requirements under 40 CFR part 60 subpart IIII. No further requirements apply for this engine (EU: SCE) under 40 CFR part 63 subpart ZZZZ.

40 CFR part 63, subpart ZZZZ Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition
63.6580	Purpose	Yes	None.	NA
63.6585	Applicability	Yes	None.	NA
63.6590	Applicability	Yes	Subject to limited requirements.	34
63.6600	Emission limitations	No	None.	NA
63.6601	Emission limitations	No	None.	NA
63.6602	Emission limitations	No	None.	NA
63.6603	Emission limitations	No	None.	NA
63.6604	Fuel requirements	No	None.	NA
63.6605	General requirements	No	None.	NA
63.6610	Initial compliance	No	None.	NA
63.6611	Initial performance test	No	None.	NA
63.6612	Initial performance test	No	None.	NA
63.6615	Subsequent performance tests	No	None.	NA
63.6620	Performance test procedures	No	None.	NA
63.6625	Monitoring and maintenance requirements	No	None.	NA
63.6630	Initial compliance	No	None.	NA
63.6635	Continuous compliance	No	None.	NA
63.6640	Continuous compliance	No	None.	NA
63.6645	Notifications	No	None.	NA
63.6650	Reports	No	None.	NA
63.6655	Records	No	None.	NA
63.6660	Record retention	No	None.	NA
63.6665	General provisions	No	None.	NA
63.6670	Implementation and enforcement	No	None.	NA
63.6675	Definitions	No	None.	NA

#### **Plant Site Emission Limits (PSELs)**

15. Provided below is a summary of the baseline emission rate, netting basis, plant site emission limits, and potential-to-emit (PTE):

Pollutant	Baseline Emission Rate (tpy)	Netting Basis		Plant Site Emission Limits (PSEL)		PTE (tpy)
		Previous (tpy)	Proposed (tpy)	Previous PSEL (tpy)	Proposed PSEL (tpy)	
PM	60.70	60.70	60.70	75	74	73.88
PM <sub>10</sub>	21.62	21.62	21.62	30	29	28.82
PM <sub>2.5</sub>	NA	0.5	0.5	3.0	2.3	2.31
CO	0	0	0	4.5	4.0	3.98
NO <sub>x</sub>	0	0	0	14	5.0	5.05
SO <sub>2</sub>	0	0	0	1.5	1.2	1.21
VOC	0	0	0	3.3	2.9	2.91
GHG	0	0	0	de minimis	de minimis	483

- 15.a. The BER for PM<sub>2.5</sub> was not established in accordance with LRAPA 42-0048(3).
- 15.b. The BER for CO, NO<sub>x</sub>, SO<sub>2</sub> and VOC was set at zero (0) tons per year for criteria pollutants. Though the facility was in operation in 1978, these pollutants were not evaluated at that time.
- 15.c. For GHGs, these pollutants were not evaluated prior to this permitting action.
- 15.d. There are no proposed changes to the netting basis from the netting basis established in the Standard ACDP issued on August 10, 2023.
- 15.e. PSELs are set at the facility potential to emit in accordance with section 42-0041(2) for all pollutants.
- 15.f. The PSEL is a federally enforceable limit on the potential to emit.

#### **Significant Emission Rate (SER)**

16. The PSEL increase over the netting basis is less than the Significant Emission Rate (SER) as defined in LRAPA title 12 for all pollutants as shown below.

Pollutant	Proposed PSEL (tpy)	PSEL Increase Over Netting Basis (tpy)	PSEL Increase Due to Utilizing Existing Baseline Period Capacity (tpy)	PSEL Increase Due to Modification (tpy)	SER (tpy)
PM	74	14	0	0	25
PM <sub>10</sub>	29	7.2	0	0	15
PM <sub>2.5</sub>	2.3	1.8	0	0	10
CO	4.0	4.0	0	0	100
NO <sub>x</sub>	5.0	5.0	0	0	40
SO <sub>2</sub>	1.2	1.2	0	0	40
VOC	2.91	2.91	0	0	40
GHG	de minimis	0	0	0	75,000

### **Type A and Type B State NSR**

17. The proposed modification did not increase the PSEL over the netting basis of any pollutant above the SER and therefore, the facility is not subject to Type A or Type B State NSR for either a nonattainment or designated area under LRAPA 38-0010(2)(d).

### **New Source Review (NSR) and Prevention of Significant Deterioration (PSD)**

18. This facility is located in an area that is designated attainment or unclassified for all regulated pollutants other than CO and PM<sub>10</sub>. For pollutants other than CO and PM<sub>10</sub>, the proposed PSELs are less than the federal major source threshold for non-listed sources of 250 tons per year per regulated pollutant and are not subject to Major NSR. For CO and PM<sub>10</sub>, the source is located in a maintenance area. The proposed PSELs for CO and PM<sub>10</sub>, are less than the 100 tons per year threshold that determines the applicability of Major NSR.

### **Federal Hazardous Air Pollutants (FHAP)/Toxic Air Contaminants (TAC)**

19. Delta has modified their current permit to include diesel engines, which must be assessed for FHAP and TAC emissions. LRAPA used DEQ Toxics ATEI Combustion Emission Factor Search Tool for the FHAP/TAC emission factors from the 'Pre-2006 Tier 0 and Tier 1 Diesel Internal Combustion Engines, all engine less than 750 kW' for EU: M-86 and 'Post-2006 Tier 2, 3, and 4 Diesel Internal Combustion Engines' for EU: JCE.
20. Under the Cleaner Air Oregon program, only existing sources that have been notified by LRAPA and new sources are required to perform risk assessments. The facility has not been notified by LRAPA and is therefore not yet required to perform a risk assessment or report annual emissions of toxic air contaminants. LRAPA required reporting of approximately 600 toxic air contaminants in 2016 and regulates approximately 260 toxic air contaminants that have Risk Based Concentrations established in rule. All FHAPs are on the list of approximately 600 toxic air contaminants. The FHAPs and toxic air contaminants listed below are based upon source testing and/or standard emission factors for the types of emission units at this facility. After the source is notified by LRAPA, Delta must update their inventory and perform a risk assessment to see if they must reduce risk from their toxic air contaminant emissions. Until then, sources will be required to report toxic air contaminant emissions triennially.
21. The table below represents only the potential emissions of FHAPs/TACs from Delta's two (2) engines, including the combustion of diesel with limited hours of operation under this modification. The current permit has the FHAPs/TACs for the sand and gravel operation.

CAS Number or DEQ ID*	Pollutant	PTE (tpy)	FHAP	CAO TAC
106-99-0	1,3-Butadiene	4.65E-03	Yes	Yes
91-57-6	2-Methyl naphthalene	2.63E-04	No	Yes
83-32-9	Acenaphthene	1.57E-05	Yes	Yes
208-96-8	Acenaphthylene	1.73E-05	Yes	Yes
75-07-0	Acetaldehyde	1.68E-02	Yes	Yes
107-02-8	Acrolein	7.25E-04	Yes	Yes
7664-41-7	Ammonia	6.21E-02	No	Yes
120-12-7	Anthracene	9.67E-06	No	Yes
7440-36-0	Antimony	6.81E-06	Yes	Yes
7440-38-2	Arsenic	5.92E-06	Yes	Yes
7440-39-3	Barium	8.00E-06	No	Yes
56-55-3	Benzo[a]anthracene	1.04E-06	Yes	Yes

CAS Number or DEQ ID*	Pollutant	PTE (tpy)	FHAP	CAO TAC
71-43-2	Benzene	3.99E-03	Yes	Yes
50-32-8	Benzo[a]pyrene	3.08E-07	Yes	Yes
205-99-2	Benzo[b]fluoranthene	9.49E-07	Yes	Yes
192-97-2	Benzo[e]pyrene	7.03E-07	No	Yes
191-24-2	Benzo[g,h,i]perylene	4.68E-07	Yes	Yes
207-08-9	Benzo[k]fluoranthene	2.79E-07	Yes	Yes
7440-41-7	Beryllium	1.02E-07	Yes	Yes
7440-43-9	Cadmium	1.73E-06	Yes	Yes
18540-29-9	Chromium (VI)	7.51E-06	Yes	Yes
218-01-9	Chrysene	1.43E-06	Yes	Yes
7440-48-4	Cobalt	3.37E-07	Yes	Yes
7440-50-8	Copper	1.07E-05	No	Yes
53-70-3	Dibenz[a,h]anthracene	2.22E-08	Yes	Yes
200*	DPM (Filt+Cond)	3.63E-01	No	Yes
100-41-4	Ethylbenzene	2.33E-04	Yes	Yes
206-44-0	Fluoranthene	7.92E-06	Yes	Yes
86-73-7	Fluorene	4.67E-05	Yes	Yes
50-00-0	Formaldehyde	5.81E-02	Yes	Yes
110-54-3	Hexane	5.76E-04	Yes	Yes
7647-01-0	Hydrochloric acid	3.99E-03	Yes	Yes
193-39-5	Indeno[1,2,3-cd]pyrene	2.29E-07	Yes	Yes
7439-92-1	Lead	7.78E-06	Yes	Yes
7439-96-5	Manganese	8.99E-06	Yes	Yes
7439-97-6	Mercury	3.23E-07	Yes	Yes
91-20-3	Naphthalene	5.64E-04	Yes	Yes
7440-02-0	Nickel	3.90E-06	Yes	Yes
401*	PAHs (excluding Naphthalene)	2.52E-08	Yes	Yes
198-55-0	Perylene	9.72E-05	No	Yes
85-01-8	Phenanthrene	1.80E-04	Yes	Yes
504*	Phosphorus	5.76E-04	No	Yes
7782-49-2	Selenium	8.05E-06	Yes	Yes
7440-22-4	Silver	1.03E-06	No	Yes
7440-28-0	Thallium	5.14E-06	No	Yes
108-88-3	Toluene	2.26E-03	Yes	Yes
1330-20-7	Xylene (mixture) including m-xylene, o-xylene, p-xylene	9.07E-04	Yes	Yes
7440-66-6	Zinc	1.12E-04	No	Yes
<b>Total HAPs and TACs (tpy)</b>			<b>0.09</b>	<b>0.52</b>

\*DEQ ID number

### Toxic Release Inventory

22. The Toxics Release Inventory (TRI) is a federal program that tracks the management of certain toxic chemicals that may pose a threat to human health and the environment. It is a resource for learning about toxic chemical releases and pollution prevention activities reported by certain industrial facilities. Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) created the TRI Program. In general, chemicals covered by the TRI Program are those that cause:

- Cancer or other chronic human health effects;



- Significant adverse acute human health effects; or
- Significant adverse environmental effects.

There are currently over 650 chemicals covered by the TRI Program. Facilities that manufacture, process or otherwise use these chemicals in amounts above established levels must submit annual TRI reports on each chemical. NOTE: The TRI Program is a federal program over which LRAPA has no regulatory authority.

In order to report emissions to the TRI program, a facility must operate under a reportable NAICS code, meet a minimum employee threshold, and manufacture, process, or otherwise use chemicals in excess of the applicable reporting threshold for the chemical. Delta's NAICS code is 212321 – Construction Sand and Gravel Mining and therefore, the facility is not covered under TRI and the facility does not have to report any emissions to the TRI program.

### **Compliance History**

23. The review report for the renewal issued on January 3, 2020, contains the current compliance history for the facility. No enforcement actions have been taken since the permit was renewed.

### **Recordkeeping Requirements**

24. Screening Plant Engine (EU: SCE) required recordkeeping:
- 24.a. Hours of operation per month;
  - 24.b. Documentation stating that diesel fuel meets 40 CFR 1090.305 nonroad diesel fuel requirements; and
  - 24.c. Records demonstrating continuous compliance with emission and operating limitations.
25. General Recordkeeping:
- 25.a. Log of each nuisance complaint and the resolution;
  - 25.b. Visible emission survey;
  - 25.c. Upset log of all planned and unplanned excess emissions.

### **Reporting Requirements**

26. The facility must submit to LRAPA the following reports by the dates indicated in the permit:
- 26.a. Annual Reporting:
    - 26.a.i. PSEL calculations;
    - 26.a.ii. Total crushed rock production;
    - 26.a.iii. Hours of operation for each engine, EU: SCE; and
    - 26.a.iv. Vehicle miles traveled on unpaved roads.

### **Public Notice**

27. The modification qualifies as a Category I public notice in accordance with section 31-0030(3)(1).

## Abbreviations, Acronyms, and Definitions

ACDP	Air Contaminant Discharge Permit	NA	Not applicable
AIE	Aggregate Insignificant Emissions	NESHAP	National Emissions Standards for Hazardous Air Pollutants
Agency	Lane Regional Air Protection Agency	NO <sub>x</sub>	Nitrogen oxides
ASTM	American Society for Testing and Materials	NSPS	New Source Performance Standard
AQMA	Air Quality Maintenance Area	NSR	New Source Review
Calendar year	The 12-month period beginning January 1 <sup>st</sup> and ending December 31 <sup>st</sup>	O <sub>2</sub>	Oxygen
CFR	Code of Federal Regulations	OAR	Oregon Administrative Rules
CEMS	Continuous emissions Monitoring system	ORS	Oregon Revised Statutes
CI	Compression ignition	O&M	Operation and Maintenance
CMS	Continuous Monitoring System	Pb	Lead
CPMS	Continuous parameter Monitoring system	PCD	Pollution control device
CO	Carbon monoxide	PIR	Paved Industrial Roads
DEQ	Oregon Department of Environmental Quality	PM	Particulate matter
dscf	dry standard cubic foot	PM <sub>10</sub>	Particulate matter less than 10 microns in size
EPA	US Environmental Protection Agency	PM <sub>2.5</sub>	Particulate matter less than 2.5 microns in size
FCAA	Federal Clean Air Act	ppmv	Part per million by volume
gal	gallon(s)	PSD	Prevention of Significant Deterioration
GDF	Gasoline dispensing facility	PSEL	Plant Site Emission Limit
GEN	Generator engine	PTE	Potential to Emit
gr/dscf	Grains per dry standard cubic foot	RACT	Reasonable Available Control Technology
HAP	Hazardous Air Pollutant as defined by LRAPA title 44	RICE	Reciprocating Internal Combustion Engine
HP	Horsepower	scf	Standard cubic foot
ICE	Internal combustion engine	SER	Significant Emission Rate
I&M	Inspection and maintenance	SIC	Standard Industrial Code
kW	kilowatt	SIP	State Implementation Plan
lb	pound(s)	SO <sub>2</sub>	Sulfur dioxide
LFG	Landfill Gas	Special Control Area	As defined in LRAPA title 29
LRAPA	Lane Regional Air Protection Agency	TRS	Total Reduced Sulfur
MMBtu	Million British thermal units	THC	Total Hydrocarbon
MMcf	Million cubic feet	UPR	Unpaved Roads
		VE	Visible emissions
		VOC	Volatile organic compound
		Year	A period consisting of any 12-consecutive calendar months

## PLANT SITE EMISSION LIMITS

\* HAP emissions were evaluated for emission units JCE and sCE together and it was demonstrated that the HAP emissions for a single or aggregate HAP were below de minimis.

**Baseline and Netting Table**

Pollutant	Baseline <sup>(1)</sup> (tons/yr)	Netting Basis		Plant Site Emission Limit (PSEL) <sup>(2)</sup>		PSEL Increase (tons/yr)	PTE Emissions (tons/yr)	Increase over Netting Basis	SER
		Previous (tons/yr)	Proposed (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)				
PM	60.70	60.70	60.70	40	74	33.9	73.88	13.18	25
PM <sub>10</sub>	21.62	21.62	21.62	22	29	6.8	28.82	7.21	15
PM <sub>2.5</sub>	NA	0.50	0.50	9	2.3	-6.7	2.31	1.81	10
CO	0.00	0.00	0.00	0.0	4.0	4.0	3.98	3.98	99
NO <sub>x</sub>	0.00	0.00	0.00	0.0	5.0	5	5.05	5.05	39
SO <sub>2</sub>	0.00	0.00	0.00	0.0	1.2	1.2	1.21	1.21	39
VOC	0.00	0.00	0.00	0.0	2.9	2.9	2.91	2.91	39
GHG	0.00	0.00	0.00	0.0	0.0	0.0	483	0.0	75,000

(1) Baseline for PM<sub>2.5</sub> was not established in accordance with LRAPA 42-0048(3).

(1) Baseline for CO, NO<sub>x</sub>, SO<sub>x</sub>, and VOC is zero (0) as these pollutants were evaluated

(3) GHG has no proposed PSEL because the calculated GHG is below the de minimis level of 2,756 (short ton).

### Screening Plant Stationary Engine Calculations (EU: SCE)

SCREENING PLANT ENGINE					
Pollutant	Max Design Capacity (hp-hr)	Emission Factors		Hourly Emission Rate (lbs/hr)	Annual Emissions (tpy)
		Factors <sup>(1)</sup>	Units		
PM	475	5.59E-04	lb/hp-hr	0.27	<b>0.13</b>
PM <sub>10</sub>	475	5.59E-04	lb/hp-hr	0.27	<b>0.13</b>
PM <sub>2.5</sub>	475	5.59E-04	lb/hp-hr	0.27	<b>0.13</b>
SO <sub>2</sub>	475	2.05E-03	lb/hp-hr	0.97	<b>0.49</b>
NO <sub>x</sub>	475	1.15E-02	lb/hp-hr	5.47	<b>2.73</b>
CO	475	8.22E-03	lb/hp-hr	3.90	<b>1.95</b>
VOC	475	2.51E-03	lb/hp-hr	1.19	<b>0.60</b>
(1) Emission factors for PM, PM <sub>10</sub> , PM <sub>2.5</sub> , NO <sub>x</sub> and CO are based on 40 CFR part 60 subpart IIII emission standards, and VOC and SO <sub>2</sub> are based on the uncontrolled diesel industrial engine factors found in EPA AP-42 Fifth Edition, Volume I Chapter 3: Stationary Internal Combustion Sources Table 3.3-1. Emission Factors For Uncontrolled Gasoline and Diesel Industrial Engines. It is assumed that PM <sub>10</sub> and PM <sub>2.5</sub> equal PM emissions					
<b>40 CFR part 60 subpart IIII Emission Limits for EU: SCE</b>					
Pollutant	Emission Limit	Emission Limit			
	(g/kW-hr)	(lb/hp-hr)			
PM	0.34	5.59E-04			
CO	5	8.22E-03			
NMHC + NO <sub>x</sub>	7.0	1.15E-02			
Where the conversion factor from g/kw-hr to lb/hp-hr is:					
Conversion factor	1.0	1.64E-03			

Post-2006 Tier 2, 3, and 4 Speciated Compounds for Uncontrolled Diesel Internal Combustion Engine						
Compound	CAS	Emission Factor lb/M gal	Emission Rate (lb/year)	Annual Emissions Rate (tpy)	Federal HAP	CAO TAC
1,3-Butadiene	106-99-0	0.2174	9.3047	4.65E-03	Yes	Yes
2-Methyl naphthalene	91-57-6	1.23E-02	0.5264	2.63E-04	No	Yes
Acenaphthene	83-32-9	7.35E-04	0.0314	1.57E-05	Yes	Yes
Acenaphthylene	208-96-8	8.10E-04	0.0347	1.73E-05	Yes	Yes
Acetaldehyde	75-07-0	0.7833	33.5252	1.68E-02	Yes	Yes
Acrolein	107-02-8	0.0339	1.4509	7.25E-04	Yes	Yes
Ammonia	7664-41-7	2.9	124.1200	6.21E-02	No	Yes
Anthracene	120-12-7	4.52E-04	0.0193	9.67E-06	No	Yes
Antimony	7440-36-0	3.18E-04	0.0136	6.81E-06	Yes	Yes
Arsenic	7440-38-2	2.77E-04	0.0118	5.92E-06	Yes	Yes
Barium	7440-39-3	3.74E-04	0.0160	8.00E-06	No	Yes
Benzo[a]anthracene	56-55-3	4.85E-05	0.0021	1.04E-06	Yes	Yes
Benzene	71-43-2	0.1863	7.9736	3.99E-03	Yes	Yes
Benzo[a]pyrene	50-32-8	1.44E-05	0.0006	3.08E-07	Yes	Yes
Benzo[b]fluoranthene	205-99-2	4.44E-05	0.0019	9.49E-07	Yes	Yes
Benzo[e]pyrene	192-97-2	3.29E-05	0.0014	7.03E-07	No	Yes
Benzo[g,h,i]perylene	191-24-2	2.19E-05	0.0009	4.68E-07	Yes	Yes
Benzo[k]fluoranthene	207-08-9	1.31E-05	0.0006	2.79E-07	Yes	Yes
Beryllium	7440-41-7	4.77E-06	0.0002	1.02E-07	Yes	Yes
Cadmium	7440-43-9	8.08E-05	0.0035	1.73E-06	Yes	Yes
Chromium (VI)	18540-29-9	3.51E-04	0.0150	7.51E-06	Yes	Yes
Chrysene	218-01-9	6.70E-05	0.0029	1.43E-06	Yes	Yes
Cobalt	7440-48-4	1.58E-05	0.0007	3.37E-07	Yes	Yes
Copper	7440-50-8	5.02E-04	0.0215	1.07E-05	No	Yes
Dibenzo[a,h]anthracene	53-70-3	1.04E-06	0.0000	2.22E-08	Yes	Yes
DPM (Filt+Cond)	200	16.98	726.5405	3.63E-01	No	Yes
Ethylbenzene	100-41-4	0.0109	0.4665	2.33E-04	Yes	Yes
Fluoranthene	206-44-0	3.70E-04	0.0158	7.92E-06	Yes	Yes
Fluorene	86-73-7	2.18E-03	0.0935	4.67E-05	Yes	Yes
Formaldehyde	50-00-0	2.71	116.1191	5.81E-02	Yes	Yes
Hexane	110-54-3	0.0269	1.1513	5.76E-04	Yes	Yes
Hydrochloric acid	7647-01-0	0.19	7.9736	3.99E-03	Yes	Yes
Indeno[1,2,3-cd]pyrene	193-39-5	1.07E-05	0.0005	2.29E-07	Yes	Yes
Lead	7439-92-1	3.64E-04	0.0156	7.78E-06	Yes	Yes
Manganese	7439-96-5	4.20E-04	0.0180	8.99E-06	Yes	Yes
Mercury	7439-97-6	1.51E-05	0.0006	3.23E-07	Yes	Yes
Naphthalene	91-20-3	2.64E-02	1.1279	5.64E-04	Yes	Yes
Nickel	7440-02-0	1.82E-04	0.0078	3.90E-06	Yes	Yes
Perylene	198-55-0	1.18E-06	0.0001	2.52E-08	No	Yes
Phenanthrene	85-01-8	4.54E-03	0.1944	9.72E-05	Yes	Yes
Phosphorus	504	8.40E-03	0.3597	1.80E-04	No	Yes
Selenium	7782-49-2	3.76E-04	0.0161	8.05E-06	Yes	Yes
Silver	7440-22-4	4.80E-05	0.0021	1.03E-06	No	Yes
Thallium	7440-28-0	2.40E-04	0.0103	5.14E-06	No	Yes
Toluene	108-88-3	0.11	4.5111	2.26E-03	Yes	Yes
Xylene (mixture) including m-xylene, o-xylene, p-xylene	1330-20-7	0.04	1.8147	9.07E-04	Yes	Yes
Zinc	7440-66-6	5.23E-03	0.2237	1.12E-04	No	Yes
Annual Totals (tpy)					0.09	0.52