



DEC 02 2014

Mr. John Yanak  
J R Simplot Company  
P.O. Box 198  
Lathrop, CA 95330-0198

**Re: Proposed Authority to Construct/Certificate of Conformity (Minor Mod)  
District Facility # N-767  
Project # N-1142428**

Dear Mr. Yanak:

Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The application is for the proposed installation of a fertilizer pellets time release coating operation (ATC Permit N-767-87-0) and associated 145 bhp diesel-fired emergency standby IC engine powering an electric generator (ATC Permit N-767-88-0)

After addressing all comments made during the 45-day EPA comment period, the District intends to issue the Authorities to Construct with Certificates of Conformity. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Nick Peirce, Permit Services Manager, at (209) 557-6400.

Seyed Sadredin  
Executive Director/Air Pollution Control Officer

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Mr. John Yanak  
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Thank you for your cooperation in this matter.

Sincerely,

  
Arnaud Marjollet  
Director of Permit Services

AM:kc/ya

Enclosures

cc: Gerardo C. Rios, EPA (w/enclosure) via email  
Brian Crets, J R Simplot Co. (w/enclosure) via email  
Melissa Hillman, Trinity Consultants (w/enclosure) via email

**Authority to Construct (ATC) Application Review**  
**Fertilizer Pellets Controlled Time Release Coating Operation**  
**and Diesel-Fired Emergency Standby IC Engine**

Date: November 26, 2014

**Facility Name:** J.R. Simplot Company  
**Mailing Address:** P.O. Box 198  
Lathrop, CA 95330-0198

**Contact Name:** Brian Crets  
**Phone:** (209) 858-6429  
**Email:** [brian.crets@simplot.com](mailto:brian.crets@simplot.com)

**Project Consultant:** Melissa Hillman  
**Phone:** (510) 285-6351  
**Email:** [Mhillman@trinityconsultants.com](mailto:Mhillman@trinityconsultants.com)

**Engineer:** Kai Chan  
**Lead Engineer:** Nick Peirce  
**Project Number:** N-1142428  
**Permit Numbers:** N-767-87-0 and N-767-88-0

**Deemed Complete:** September 24, 2014

**I. Proposal:**

N-767-87-0:

J.R. Simplot Company is requesting an Authority to Construct (ATC) permit to install a fertilizer pellets controlled time release coating operation referred to as the Gal-XE One Project. A new processing plant will be built onsite to produce up to 20,000 tons/year of this polyurethane coated fertilizer product. The processing plant will consist of hoppers, conveyors, elevators, screens, steam heater, coating drum, coating storage tanks, and coating drum cleaning.

N-767-88-0:

J.R. Simplot Company is also requesting an Authority to Construct (ATC) permit to install a 145 bhp Cummins Model QSB5-G3 Tier 3 certified diesel-fired emergency standby IC engine powering an electric generator. The emergency standby IC engine will only be operated to provide electric power to the new fertilizer pellets coating plant during utility electric power outages and for no more than 50 hours/year during non-emergency purposes for engine maintenance and testing.

J.R. Simplot Co. is an existing major stationary source and has received their Title V permit. Per Rule 2520, Section 3.20, this proposed project constitutes a minor modification to the facility's Title V permit and may be processed with a Certificate of Conformity (COC). The facility requests that the ATC permits be issued **with** a COC and has submitted a Compliance Certification form (see Appendix F). Therefore, J.R. Simplot Co. will be required to submit a Title V administrative amendment application prior to operating under these Authority to Construct (ATC) permits issued under this proposed project.

## II. Applicable Rules:

Rule 2010: Permits Required (12/17/92)  
Rule 2020: Exemptions (8/18/11)  
Rule 2201: New and Modified Stationary Source Rule (4/21/11)  
Rule 2410: Prevention of Significant Deterioration (6/16/11, Effective 11/26/12)  
Rule 2520: Federally Mandated Operating Permits (6/21/01)  
Rule 4001: New Source Performance Standards (4/14/99)  
Rule 4002: National Emissions Standards for Hazardous Air Pollutants (5/20/04)  
Rule 4101: Visible Emissions (2/17/05)  
Rule 4102: Nuisance (12/17/92)  
Rule 4201: Particulate Matter Concentration (12/17/92)  
Rule 4202: Particulate Matter Emission Rate (12/17/92)  
Rule 4301: Fuel Burning Equipment (12/17/92)  
Rule 4701: Internal Combustion Engines – Phase 1 (08/21/03)  
Rule 4702: Internal Combustion Engines – Phase 2 (8/18/11)  
Rule 4801: Sulfur Compounds (12/17/92)  
California Health & Safety Code 41700 - Health Risk Assessment  
California Health & Safety Code 42301.6 - School Notice  
Title 17 California Code of Regulations (CCR), Section 93115 - Airborne Toxic Control Measure for Stationary Compression Ignition (CI) Engines  
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)  
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

## III. Project Location:

The equipment will be operated at 16777 Howland Road in Lathrop, CA. This facility and its associated equipment are not located within 1,000 feet of a K-12 School. Therefore, the public noticing requirement of California Health and Safety Code 42301.6 is not required for this project.

## IV. Process Description:

J. R. Simplot Co. manufactures, blends, and stores agricultural fertilizer products. The J. R. Simplot facility in Lathrop is a manufacturer of Ammonium Sulfate and Nitrogen Phosphate Potassium (NPK) fertilizers.

### N-767-87-0:

The Gal-XE One Project will involve the construction of a new processing plant to produce a controlled time release fertilizer pellet product. The controlled time release fertilizer pellets are manufactured by applying a polyurethane coating to the outside of the fertilizer pellet products, such as NPK or urea, in a coating drum. NPK or urea (i.e. process materials) will be introduced to the Gal-XE One process either in super sacks or in bulk. The operator will load the process materials into hoppers from super sacks or via a front-end loader. From there the process materials will be routed through a series of hoppers, conveyors, elevators, and screens to a steam heater. The screen will separate the process materials based on particle size specifications; any particles that are outside the desired size specifications will be collected and recovered for future use. The steam heater will raise the temperature of the process materials to a maximum of 220 degrees Fahrenheit. Heat will be supplied to the steam heat from excess steam produced from the waste heat recovery boilers at the facility's sulfuric acid plant (Permit Unit N-767-9). Once the process materials are heated to a

sufficient temperature, they will be transferred to the coating drum through an elevator and hopper. Wax may or may not be introduced to the products in the coating drum.

The polyurethane coating is a two component compound consisting of methyl di-isocyanate (MDI) and polyol. MDI and polyol will be brought onsite in totes and transferred to storage tanks. The MDI and polyol will each be stored in a 125 gallon storage tank heated to a maximum temperature not to exceed 150 degrees Fahrenheit. The MDI storage tank will be vented through two 180 lb activated carbon canisters connected in series for VOC emissions control. A colored powder dye will be added to the polyol tank and mixed prior to being introduced to the coating drum. At different times the polyol/dye mixture and MDI will be sprayed onto the process materials (NPK or Urea) in the coating drum. As the MDI and polyol react a polyurethane shell will be formed on the process materials. Additional layers of MDI and polyol/dye mixture will be applied until the desired release rate is obtained. Vegetable oil may be added directly into the coating drum as well.

Once the desired product is produced in the coating drum, the time controlled release fertilizer will be routed to a hopper via a conveyor, elevator, and screen and transferred into super sacks for customer delivery. The screen will separate the produced fertilizer product based on particle size specifications; any polyurethane coated products that are outside the desired size specification will be collected and recovered for future use. A process flow diagram of this operation is included in Appendix B of this document.

Finally, the coating drum may be cleaned up to twice weekly to remove product that adheres to the inside walls. Cleaning will be done manually or by blasting the interior of the drum with either dry ice or walnut shells. A new dry ice blaster will be used for cleaning operations that are performed with dry ice. In addition to the dry ice blaster, the operator may also use abrasive blasting operations that are currently permitted under permit units N-767-39, N-767-40, N-767-41, and N-767-42 to clean the coating drum.

N-767-88-0:

The 145 bhp emergency standby IC engine powers an electric generator. Other than emergency operation, the engine may be operated up to 50 hours per year for maintenance and testing purposes.

Operating Schedule & Process Rates:

Maximum operating schedule of 24 hours per day and 365 days per year at the following process rates:

ATC Permit Number	Operating Schedule	Processing Rates
N-767-87-0	24 hr/day & 365 days/year	100 tons-Fertilizer Coated/day 20,000 tons-Fertilizer Coated/year 4.2 tons-MDI Coating Used/day 4.2 tons-Polyol Coating Used/day 840 tons-MDI Coating Used/year 840 tons-Polyol Coating Used/year 2,000 lb-Dry Ice Used/day 208,000 lb-Dry Ice Used/year
N-767-88-0	24 hours/day & 50 hours/year	6.9 gallons of diesel fuel combusted/hr

## V. Equipment Listing:

### Permit Description:

**N-767-87-0:** FERTILIZER PELLETS CONTROLLED TIME RELEASE COATING OPERATION CONSISTING OF THE FOLLOWING: (1) RECEIVING FEED HOPPER, FEED CONVEYOR, FEED ELEVATOR, FEED SCREEN, FLUID BED HEATER, FLUID BED DISCHARGE ELEVATOR, AND COATER SURGE FEED HOPPER ALL VENTED TO A MAC PROCESS BAGHOUSE; (2) COATER WAX FEEDER, WAX HOPPER FILLER, COATING DRUM, COATER DISCHARGE CONVEYOR, VIBRATORY FEEDER, COATER ELEVATOR, PRODUCT SCREEN, PRODUCT SURGE HOPPER ALL VENTED TO A CAMFIL FARR APC MODEL FLTR-GS-XG0325 DUST COLLECTOR. THE COATING DRUM IS ALSO VENTED TO TWO 180 LB. (EACH) ACTIVATED CARBON CANISTERS CONNECTED IN SERIES AND IS VENTED THROUGH THE DUST COLLECTOR.

### Permit Description:

**N-767-88-0:** 145 BHP (INTERMITTENT) CUMMINS INC. MODEL QSB5-G3 TIER 3 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRIC GENERATOR.

## VI. Emission Control Technology Evaluation:

### N-767-87-0:

Particulate matter will be emitted from the loading, conveying, and screening of the process materials and final polyurethane coated products. All processes associated with this project are covered, enclosed, under negative pressure, and controlled by an associated dust collector or baghouse. The dust collector and baghouse is expected to operate with a control efficiency of at least 99%. In addition, the recommended maximum filtering velocity for fertilizer dust collection in a baghouse or dust collector utilizing a pulse jet cleaning system is 8.0 fpm (Reference from Air Pollution Engineering Manual, Air & Waste Management Association -1992 Table 5, page 128). The proposed dust collector and baghouse will operate with a filtering velocity of 5 fpm, which is below the recommended maximum filtering velocity. Therefore, the dust collector and baghouse will be acceptable and permit conditions will be used to ensure compliance with applicable requirements.

VOCs will be emitted from the application of the polyurethane coatings to the process materials in the coating drum. The coating drum is enclosed and vented through two 180 lb (each) activated carbon canisters connected in series for VOC emissions control. The activated carbon canisters are then vented through the proposed dust collector for particulate matter emissions control from the coating drum. According to the activated carbon adsorption system manufacturer, the system is expected to operate with a VOC emission control efficiency of at least 95%. In addition, each 180 lb activated carbon canisters will last at least 180 days prior to carbon breakthrough for the estimated maximum system loading from the polyurethane coatings. Monthly monitoring of the activated carbon adsorption system will be required to verify the proposed VOC emission rate and to prevent premature carbon breakthrough.

N-767-88-0:

The applicant has proposed to install a Tier 3 certified diesel-fired IC engine that will be fired on very low-sulfur diesel fuel (0.0015% by weight sulfur maximum).

The proposed engine meets the latest Tier Certification requirements; therefore, the engine meets the latest ARB/EPA emissions standards for diesel particulate matter, hydrocarbons, nitrogen oxides, and carbon monoxide.

The use of very low-sulfur diesel fuel (0.0015% by weight sulfur maximum) reduces SO<sub>x</sub> emissions by over 99% from standard diesel fuel.

**VII. General Calculations:**

**A. Assumptions:**

N-767-87-0:

1. PM<sub>10</sub> and VOC will be emitted from loading, conveying, and coating of the fertilizer pellets.
2. The PM emissions from the exhaust of the proposed baghouse and dust collector will be assumed to be 100% PM<sub>10</sub>.
3. Per manufacturer guarantee, the control efficiency of the proposed baghouse and dust collector filters are 99% for PM<sub>10</sub>.
4. Per applicant, the proposed control efficiency of the activated carbon adsorption system will be at least 95% for VOC from the proposed polyurethane coatings.

N-767-88-0:

1. NO<sub>x</sub>, CO, VOC, PM<sub>10</sub>, and SO<sub>x</sub> will be emitted from the combustion of diesel fuel by the associated IC engine.
2. Operating parameters for the proposed 145 bhp Cummins Inc. diesel fired IC engine:  
Emergency Operating Schedule: 24 hr/day  
Non-Emergency Operating Schedule: 50 hr/year  
Fuel rate: 6.9 gal/hr @ 100% load  
Sulfur Content of fuel: 0.0015 % by weight  
Diesel Density: 7.1 lbm/gal (From AP-42)

**B. Emission Factors (EF):**

N-767-87-0:

1. The PM<sub>10</sub> emission factor (EF<sub>PM10</sub>) from the handling, conveying, and screening of the fertilizer is based on a particle size distribution analysis test and assumes a worst case situation that the fraction of PM<sub>10</sub> in the material will all be emitted. Therefore:

$$\begin{aligned} \text{EF}_{\text{PM10/Uncontrolled}} (\text{lb-PM}_{10}/\text{ton}) &= 6.07 \times 10^{-5} \text{ lb-PM}_{10}/\text{lb-Fertilizer} \times 2,000 \text{ lb/ton} \\ &= \mathbf{0.121 \text{ lb-PM}_{10}/\text{ton-Fertilizer}} \end{aligned}$$

2. The VOC emission factor (EF<sub>VOC/Coating</sub>) from the polyurethane coating is based on a test of the mass loss after the coated fertilizer is produced in the coating drum (4939-M-101) with a conservative safety factor of 5. Therefore:

$$\begin{aligned}
 EF_{\text{VOC/Coating}} \text{ (lb-VOC/ton)} &= [\text{Coating Mass Loss (lb-Coating)} \\
 &\quad + \text{Mass of Coating Applied (lb-Coating)}] \times 2,000 \text{ lb/ton} \\
 &\quad \times 5 \\
 &= [8.82 \times 10^{-5} \text{ lb-Coating} + 0.181 \text{ lb-Coating}] \\
 &\quad \times 2,000 \text{ lb-Coating/ton} \times 5 \\
 &= \mathbf{4.873 \text{ lb-VOC/ton-Coating}}
 \end{aligned}$$

N-767-88-0:

1. Emission factors for the combustion of diesel fuel from the proposed 145 bhp IC engine for NO<sub>x</sub>, VOC, CO, and PM<sub>10</sub> emissions will be based on emission factors from the equipment manufacturer. The SO<sub>x</sub> emission factor will be determined using mass balance with a maximum sulfur content of 0.0015% by weight.

$$\begin{aligned}
 EF_{2\text{SO}_x} &= 0.000015 \text{ lbm S/lbm fuel} \times 7.1 \text{ lbm fuel/gal fuel} \times 453.6 \text{ g/lbm} \\
 &\quad \times 2 \text{ lbm SO}_2 \text{ exhaust/1 lbm S in fuel} \times 6.9 \text{ gal/hr} \times 1/145 \text{ bhp} \\
 &= 0.0046 \text{ g/bhp-hr}
 \end{aligned}$$

Pollutant	Post-Project Emission Factor (EF2)
NO <sub>x</sub>	2.73 g/bhp-hr
CO	0.671 g/bhp-hr
VOC	0.127 g/bhp-hr
PM <sub>10</sub>	0.097 g/bhp-hr
SO <sub>x</sub>	0.0046 g/bhp-hr

### C. Potential to Emit Calculations (PE):

#### 1. Pre-Project Potential to Emit (PE1):

N-767-87-0 and N-767-88-0:

Since these are new emission units, the daily and annual pre-project potential to emit (PE1) for the emission units associated with these permit units are equal to zero.

#### 2. Post-Project Potential to Emit (PE2):

##### Daily and Annual PE2 Calculations:

N-767-87-0:

##### Daily and Annual PM<sub>10</sub> Emissions from the Handling, Conveying, and Screening of the Fertilizer Pellets:

The daily and annual PM emissions will be based on the proposed daily and annual processing rates of 100 tons/day and 20,000 tons/year, respectively. In addition, the equipment associated with this operation will be covered, enclosed, operated under negative pressure, and vented to a baghouse or dust collector with a control efficiency of 99%. Therefore:

$$\begin{aligned}
 \text{Daily PE2}_{\text{PM}_{10}/\text{N-767-87-0}} &= \text{Daily Processing Rate (tons/day)} \\
 &\quad \times EF_{\text{PM}_{10}/\text{Uncontrolled}} \text{ (lb-PM}_{10}\text{/ton)} \times (1 - \text{Control Efficiency})
 \end{aligned}$$

$$\begin{aligned}
 \text{Annual PE2}_{\text{PM}_{10}/\text{N-767-87-0}} &= \text{Annual Processing Rate (tons/year)} \\
 &\quad \times EF_{\text{PM}_{10}/\text{Uncontrolled}} \text{ (lb-PM}_{10}\text{/ton)} \\
 &\quad \times (1 - \text{Control Efficiency})
 \end{aligned}$$

Daily and Annual PE2 Calculations for PM <sub>10</sub> Emissions						
Process Description	Processing Rate		EF (Uncontrolled) lb-PM <sub>10</sub> /ton	Control Efficiency %	Potential to Emit (PE2)	
	tons/day	tons/year			lb-PM <sub>10</sub> /day	lb-PM <sub>10</sub> /year
Fertilizer Pre-Coating Processing Equipment served by Baghouse	100	20,000	0.121	99	0.12	24.2
Fertilizer Coating and Post-Coating Processing Equipment served by a Dust Collector	100	20,000	0.121	99	0.12	24.2
<b>Total</b>					<b>0.2</b>	<b>48</b>

Daily and Annual VOC Emissions from the Application of Coatings on the Fertilizer Pellets:

The daily and annual VOC emissions will be based on the proposed daily and annual coating usage rates for each coating utilized in the coating drum. In addition, the equipment associated with this operation will be enclosed and operated under negative pressure vented to a carbon adsorption system with a control efficiency of at least 95%. Therefore:

$$\text{Daily PE2}_{\text{VOC/N-767-87-0}} = \text{Daily Coating Usage Rate (tons/day)} \\ \times \text{EF}_{\text{VOC/Coating}} \text{ (lb-VOC/ton-Coating)} \\ \times (1 - \text{Control Efficiency})$$

$$\text{Annual PE2}_{\text{VOC/N-767-87-0}} = \text{Annual Coating Usage Rate (tons/year)} \\ \times \text{EF}_{\text{VOC/Coating}} \text{ (lb-VOC/ton-Coating)} \\ \times (1 - \text{Control Efficiency})$$

Daily and Annual PE2 Calculations for VOC Emissions						
Coating Applied	Coating Usage Rate		EF (Uncontrolled) lb-VOC/ton-Coating	Control Efficiency %	Potential to Emit (PE2)	
	tons/day	tons/year			lb-VOC/day	lb-VOC/year
MDI Coating	4.2	840	4.873	95	1.02	204.7
Polyol Coating	4.2	840	4.873	95	1.02	204.7
<b>Total</b>					<b>2.0</b>	<b>409</b>

Total PE2:

Pollutant	Daily PE2 <sub>N-767-87-0</sub> (lb/day)	Annual PE2 <sub>N-767-87-0</sub> (lb/year)
VOC	2.0	409
PM <sub>10</sub>	0.2	48

N-767-88-0:

Daily and Annual Emissions due to the Combustion of Diesel Fuel from the IC Engine

IC Engine Power Rating: 145 bhp

Max. Operating Hours: 24 hr/day and 50 hr/year

$$\text{Daily PE2}_{\text{N-767-88-0}} = \text{Emission Factor (g/bhp-hr)} \times 145 \text{ bhp} \times 24 \text{ hr/day} \\ \times 1 \text{ lbm}/453.6 \text{ g}$$

$$\text{Annual PE2}_{\text{N-767-88-0}} = \text{Emission Factor (g/hp-hr)} \times 145 \text{ bhp} \times 50 \text{ hr/year} \\ \times 1 \text{ lbm}/453.6 \text{ g}$$

Pollutant	Emission Factor (g/hp-hr)	Daily PE <sub>2</sub> <sub>N-767-88-0</sub> (lb/day)	Annual PE <sub>2</sub> <sub>N-767-88-0</sub> (lb/year)
NOx	2.73	20.9	44
CO	0.671	5.1	11
VOC	0.127	1.0	2
PM <sub>10</sub>	0.097	0.7	2
SOx	0.0046	0 (0.04)	0 (0.1)

**D. Increase in Permitted Emissions (IPE):**

**1. Quarterly Net Emissions Change (QNEC):**

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile. It is assumed that the annual emissions are evenly distributed throughout the year. Therefore, for the proposed project the QNEC is calculated as follows:

$$\text{QNEC} = \text{Annual PE}_2 \div 4 \text{ Quarters/year}$$

ATC Permit N-767-87-0					
Pollutant	Annual PE <sub>2</sub> (lb/year)	1 <sup>st</sup> Quarter (lb/quarter)	2 <sup>nd</sup> Quarter (lb/quarter)	3 <sup>rd</sup> Quarter (lb/quarter)	4 <sup>th</sup> Quarter (lb/quarter)
VOC	409	102	102	102	103
PM <sub>10</sub>	48	12	12	12	12

ATC Permit N-767-88-0					
Pollutant	Annual PE <sub>2</sub> (lb/year)	1 <sup>st</sup> Quarter (lb/quarter)	2 <sup>nd</sup> Quarter (lb/quarter)	3 <sup>rd</sup> Quarter (lb/quarter)	4 <sup>th</sup> Quarter (lb/quarter)
NOx	44	11	11	11	11
CO	11	2	3	3	3
VOC	2	0	0	1	1
PM <sub>10</sub>	2	0	0	1	1
SOx	0	0	0	0	0

**2. Adjusted Increase in Permitted Emissions (AIPE):**

N-767-87-0 and N-767-88-0:

The AIPE is used to determine if BACT is required for emission units that are being modified. Since the application is proposing to install new emission units, the BACT requirements are based on the daily PE<sub>2</sub> values calculated above. Therefore, AIPE calculations are not necessary for these permit units (Ref. Rule 2201, Section 4.1).

**E. Facility Emissions:**

**1. Pre-Project Stationary Source Potential to Emit (SSPE1):**

Pursuant to Section 4.9 of District Rule 2201, the Pre-project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been

banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

SSPE1 is calculated in detail in Appendix C and is summarized in the table below.

SSPE1 (lb/year)					
	NOx	CO	VOC	SOx	PM <sub>10</sub>
<b>SSPE1</b>	<b>58,860</b>	<b>36,774</b>	<b>2,294</b>	<b>2,286,202</b>	<b>369,090</b>

## 2. Post-Project Stationary Source Potential to Emit (SSPE2):

Pursuant to Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

SSPE2 is calculated in the table below by adding the annual PE2 for the new permit units to the SSPE1 for each pollutant. Therefore:

SSPE2 (lb/year)					
	NOx	CO	VOC	SOx	PM <sub>10</sub>
SSPE1	58,860	36,774	2,294	2,286,202	369,090
<i>N-767-87-0 (ATC Permit)</i>	<i>0</i>	<i>0</i>	<i>409</i>	<i>0</i>	<i>48</i>
<i>N-767-88-0 (ATC Permit)</i>	<i>44</i>	<i>11</i>	<i>2</i>	<i>0</i>	<i>2</i>
<b>SSPE2</b>	<b>58,904</b>	<b>36,785</b>	<b>2,705</b>	<b>2,286,202</b>	<b>369,140</b>

## 3. Major Source Determination:

### A. Rule 2201 Major Source Determination:

Pursuant to Section 3.24 of District Rule 2201, a Major Source is a stationary source with post-project emissions or a Post Project Stationary Source Potential to Emit (SSPE2), equal to or exceeding one or more of the following threshold values. However, Section 3.23.2 states, "for the purposes of determining major source status, the SSPE2 shall not include the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site."

The SSPE2 for PM<sub>2.5</sub> will be calculated based on a PM<sub>2.5</sub> fraction for fertilizer manufacturing operations of 0.15 lb-PM<sub>2.5</sub>/lb-PM<sub>10</sub> as determined under project N-1101616. Therefore:

$$\begin{aligned}
 \text{SSPE2}_{\text{PM}_{2.5}} &= \text{SSPE2}_{\text{PM}_{10}} (\text{lb-PM}_{10}/\text{year}) \times 0.15 \text{ lb-PM}_{2.5}/\text{lb-PM}_{10} \\
 &= 369,140 \text{ lb-PM}_{10}/\text{year} \times 0.15 \text{ lb-PM}_{2.5}/\text{lb-PM}_{10} \\
 &= 55,371 \text{ lb-PM}_{2.5}/\text{year}
 \end{aligned}$$

<b>Major Source Determination (lb/year)</b>						
	<b>NOx</b>	<b>CO</b>	<b>VOC</b>	<b>PM<sub>2.5</sub></b>	<b>PM<sub>10</sub></b>	<b>SOx</b>
SSPE2	58,904	36,785	2,705	55,371	369,140	2,286,202
ERC N-74 (Minus)	0	0	0	0	0	-6,240
ERC N-75 (Minus)	0	0	0	0	0	-1,751,692
ERC N-1250-5 (Pending ERC)	0	0	0	0	0	-113,227
<b>Major Source Determination SSPE2</b>	<b>58,904</b>	<b>36,785</b>	<b>2,705</b>	<b>55,371</b>	<b>369,140</b>	<b>415,043</b>
<b>Major Source Threshold</b>	<b>20,000</b>	<b>200,000</b>	<b>20,000</b>	<b>200,000</b>	<b>140,000</b>	<b>140,000</b>
<b>Major Source</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>	<b>YES</b>

**B. Rule 2410 Major Source Determination:**

The facility or the equipment evaluated under this project is listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i) as a chemical process plant. Therefore the following PSD Major Source thresholds in the table below are applicable. For the purposes of determining major source for PSD, the following shall not be included:

- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

<b>PSD Major Source Determination (tons/year)</b>						
Permit Unit	<b>NO<sub>2</sub></b> (as NOx)	<b>VOC</b>	<b>SO<sub>2</sub></b> (as SOx)	<b>CO</b>	<b>PM</b>	<b>PM<sub>10</sub></b>
<b>Total Estimated Facility PE before Project Increase<sup>(1)</sup></b>	29.45	1.147	207.52	18.39	184.55	184.55
<b>PSD Major Source Thresholds</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>PSD Major Source</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>	<b>NO</b>	<b>YES</b>	<b>YES</b>

As shown above, the facility is an existing major source for PSD for at least one pollutant. Therefore the facility is an existing major source for PSD.

**4. Baseline Emissions:**

Pursuant to Rule 2201, Section 3.8, the Baseline Emissions (BE) for a given pollutant is the sum of the following:

BE = Pre-project Potential to Emit for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

<sup>1</sup> The estimated facility annual PE for NO<sub>2</sub> (calculated as NOx), VOC, SO<sub>2</sub> (calculated as SOx), CO, PM (assumed to be equal to PM<sub>10</sub>), and PM<sub>10</sub> are based on the total annual PE as determined in Appendix C of this document.

Otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to Rule 2201, Section 3.23

Based on the major source determination calculations in the above section, the facility is a major source for NO<sub>x</sub>, PM<sub>10</sub>, and SO<sub>x</sub>.

There are no Baseline Emissions (BE) for the new emissions unit associated with this project. Therefore, BE is equal to zero for all pollutants.

**5. Stationary Source Project Increase in Permitted Emissions (SSIPE):**

SSIPE is used to determine if a project triggers public notification (Ref. District Rule 2201, Section 5.4.5). For the proposed project:

$$\text{SSIPE (for any one pollutant)} = \text{SSPE2} - \text{SSPE1}$$

<b>SSIPE</b>			
<b>Pollutant</b>	<b>SSPE2 (lb/yr)</b>	<b>SSPE1 (lb/year)</b>	<b>SSIPE (lb/year)</b>
NO <sub>x</sub>	58,904	58,860	44
CO	36,785	36,774	11
VOC	2,705	2,294	411
SO <sub>x</sub>	2,286,202	2,286,202	0
PM <sub>10</sub>	369,140	369,090	50

**F. SB-288 Major Modification:**

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

As determined above in Sections III.F.3.A., this facility is a Major Source for NO<sub>x</sub>, SO<sub>x</sub>, and PM<sub>10</sub> emissions. Therefore, the project's annual PE2 is compared to the SB-288 Major Modification Thresholds in the following table in order to determine if the SB-288 Major Modification calculations are required.

<b>SB 288 Major Modification Thresholds</b>			
<b>Pollutant</b>	<b>Project Annual PE2 (lb/year)</b>	<b>Threshold (lb/year)</b>	<b>SB 288 Major Modification Calculation Required?</b>
NO <sub>x</sub>	44	50,000	No
SO <sub>x</sub>	0	80,000	No
PM <sub>10</sub>	50	30,000	No

Since none of the SB 288 Major Modification Thresholds are surpassed with this project, this project does not constitute an SB 288 Major Modification.

## G. Federal Major Modification:

Rule 2201, Section 3.18 defines Federal Major Modification the same as "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA. SB-288 Major Modifications are not Federal Major Modifications if they meet the criteria of the "Less-Than-Significant Emissions Increase Exclusion" as defined in Section 3.18.1.

Per Section 3.18.1, a Less-Than-Signification Emissions Increase Exclusion is for an emissions increase for the project, or a Net Emissions Increase for the project (as determined pursuant to 40 CFR 51.165 (a)(2)(ii)(B) through (D), and (F)), that is not significant for a given regulated NSR pollutant, and therefore is not a federal major modification for that pollutant.

As determined above in Section III.F.3.A., this facility is a Major Source for NO<sub>x</sub>, PM<sub>10</sub>, and SO<sub>x</sub> emissions; therefore, a Federal Major Modification determination is required only for these pollutants. Per Section 3.18.1.4 of Rule 2201, the Federal Major Modification Emission Increase (EI) threshold is 0 lb/year for NO<sub>x</sub>, 30,000 lb/year for PM<sub>10</sub>, and 80,000 lb/year for SO<sub>x</sub>.

$$EI = PAE - BAE$$

Where: PAE = Post-Project Projected Actual Emissions  
BAE = Pre-Project Baseline Actual Emissions

Since this project is for the installation of new emission units, the PAE is equal to the Annual PE2 and BAE is equal to zero.

### N-767-87-0:

As determined in Section VII.C.2. of this document for the fertilizer coating operation, the Annual PE2 for PM<sub>10</sub>, which is the only major source pollutant emitted from this emissions unit, is 48 lb-PM<sub>10</sub>/year and the EI is the following:

$$EI_{PM10} = \text{Annual PE2}_{PM10} - BAE_{PM10} = 48.0 \text{ lb-PM}_{10}/\text{year} - 0 \text{ lb/year} = 48.0 \text{ lb-PM}_{10}/\text{year}$$

### N-767-88-0:

As determined in Section VII.C.2. of this document for the 145 bhp diesel-fired emergency standby IC engine powering an electric generator, the Annual PE2 for NO<sub>x</sub>, PM<sub>10</sub>, and SO<sub>x</sub>, which are the only major source pollutants emitted from this emissions unit, is 44 lb-NO<sub>x</sub>/year, 2 lb-PM<sub>10</sub>/year, and 0 lb-SO<sub>x</sub>/year. Therefore:

$$EI_{NOx} = \text{Annual PE2}_{NOx} - BAE_{NOx} = 44 \text{ lb-NO}_x/\text{year} - 0 \text{ lb-NO}_x/\text{year} = 44 \text{ lb-NO}_x/\text{year}$$

$$EI_{PM10} = \text{Annual PE2}_{PM10} - BAE_{PM10} = 2.0 \text{ lb-PM}_{10}/\text{year} - 0 \text{ lb-PM}_{10}/\text{year} \\ = 2.0 \text{ lb-PM}_{10}/\text{year}$$

$$EI_{SOx} = \text{Annual PE2}_{SOx} - BAE_{SOx} = 0 \text{ lb-SO}_x/\text{year}$$

Per the District's draft policy titled "Implementation of Rule 2201 (as amended on 12/18/08 and effective on 6/10/10) for SB288 Major Modifications and Federal Major Modifications", if the average increase in emissions (IPE) is 0.5 lb/day or less then the project is not to trigger a Federal Major Modification.

$$\text{Average IPE}_{NOx} = 44 \text{ lb-NO}_x/\text{year} \times 1 \text{ year}/365 \text{ days} = 0.12 \text{ lb-NO}_x/\text{day}$$

The Average IPE will not exceed 0.5 lb/day for NO<sub>x</sub>; therefore, this permitting action for this permit unit is not a Federal Major Modification for NO<sub>x</sub>.

The project's combined total emission increases (Project EI) is the sum of the annual PE2 for the permit units associated with this project. The following table summarizes the Federal Major Modification determination for this project:

Federal Major Modification Determination Summary				
Pollutant	Project PE2 (lb/year)	Project EI (lb/year)	Thresholds (lb/year)	Federal Major Modification
NOx	44	0 <sup>(2)</sup>	0	No
SOx	0	0	80,000	No
PM <sub>10</sub>	50	50	30,000	No

Since none of the Federal Major Modification Thresholds are being surpassed with this project, this project does not constitute a Federal Major Modification and no further analysis is required.

#### H. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination:

Rule 2410 applies to pollutants for which the District is in attainment or for unclassified pollutants. The pollutants addressed in the PSD applicability determination are listed as follows:

- NO<sub>2</sub> (as a primary pollutant)
- SO<sub>2</sub> (as a primary pollutant)
- CO
- PM
- PM<sub>10</sub>

##### Step 1:

The first step of this PSD evaluation consists of determining whether the facility is an existing PSD Major Source. As determined in Section III.F.3.B. above in this document, the facility is an existing PSD Major Source.

##### Step 2:

In the case the facility is an existing PSD Major Source, the second step of the PSD evaluation is to determine if the project results in a PSD significant increase.

#### I. Project Location Relative to Class 1 Area:

As demonstrated in the "PSD Major Source Determination" Section above (Section III.F.3.B), the facility was determined to be a existing major source for PSD. Because the project is not located within 10 km of a Class 1 area, modeling of the emission increase is not required to determine if the project is subject to the requirements of Rule 2410.

<sup>2</sup> Per the referenced District draft policy, increases of less than 0.5 lb/day are rounded to zero for Federal Major Modification determination purposes.

## II. Significance of Project Emission Increase Determination:

### a. Potential to Emit of attainment/unclassified pollutant for New or Modified Emission Units vs PSD Significant Emission Increase Thresholds

As a screening tool, the potential to emit from all new and modified units is compared to the PSD significant emissions increase thresholds, and if total potential to emit from all new and modified units is below this threshold, no further analysis will be needed.

<b>PSD Significant Emission Increase Determination: Potential to Emit (tons/year)</b>					
	NO2	SO2	CO	PM	PM10
<b>Total PE from New and Modified Units<sup>(3)</sup></b>	0.022	0	0.0055	0.025	0.025
<b>PSD Significant Emission Increase Thresholds</b>	40	40	100	25	15
<b>Exceeds PSD Significant Emission Increase Thresholds?</b>	No	No	No	No	No

As demonstrated above, because the post-project total potentials to emit from all new and modified emission units are below the PSD significant emission increase thresholds, this project is not subject to the requirements of Rule 2410 and no further discussion is required.

## **VIII. Compliance**

### **Rule 2020 – Exemptions:**

This rule specifies emission units that are not required to obtain an Authority to Construct or Permit to Operate. Section 6.6.4. of this Rule exempts the storage of organic material with a capacity of 250 gallons or less where the actual storage temperature does not exceed 150 degrees Fahrenheit. The proposed 125 gallon capacity MDI and Polyol coating storage tanks are heated to 100 and 140 degrees Fahrenheit, respectively. Therefore, both coating storage tanks are permit-exempt.

### **Rule 2201 - New and Modified Stationary Source Review Rule:**

#### **A. Best Available Control Technology (BACT):**

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless exempted pursuant to Section 4.2, BACT is required for the following actions: (1) Any new emissions unit with a potential to emit exceeding 2.0 pounds in any one day, (2) The relocation of an existing emissions unit from one stationary source to another with a potential to emit exceeding 2.0 pounds in any one day, (3) Modifications to an existing emissions unit with a valid Permit to Operate resulting in an Adjusted Increase in Permitted Emissions (AIPE) exceeding 2.0 pounds in any one day, and (4) Any new or modified emissions unit, in a stationary

<sup>3</sup> The estimated project annual PE for NO<sub>2</sub> (calculated as NO<sub>x</sub>), VOC, SO<sub>2</sub>, CO, PM (assumed to be equal to PM<sub>10</sub>), and PM<sub>10</sub> are based on the Annual PE<sub>2</sub> totals as determined above in Section VII.C.2.

source project, which results in an SB-288 Major modification or Federal Major Modification, as defined in this rule. If the post project Stationary Source Potential to Emit (SSPE2) for Carbon Monoxide is less than 200,000 pounds per year, BACT is not required for Carbon Monoxide.

### **Best Available Control Technology (BACT) for ATC Permit N-767-87-0**

#### **1. BACT Applicability:**

As determined in Section VII.C.2. of this document, the applicant is proposing to permit new emission units, which will not result in a daily PE2 of greater than 2.0 lb/day of any affected pollutant. In addition, as determined above in Sections VII.F. and G., the proposed project will not trigger an SB-288 or Federal Major Modification. Therefore, BACT will not be triggered for any affected pollutant for the emission units associated with this permit unit and no further analysis is required.

### **Best Available Control Technology (BACT) for ATC Permit N-767-88-0**

#### **1. BACT Applicability:**

According to the daily PE2 calculations performed in the Section VII.C.2. above, the applicant is proposing to permit a new emissions unit, which will result in a daily PE2 greater than 2.0 lb/day for NOx and CO emissions. However, the SSPE2 for CO is less than 200,000 lb/yr. Additionally, as determined in Section II.G. and H., this project does not result in an SB-288 or Federal Major Modification, respectively. Therefore, BACT will only be triggered for NOx emissions.

#### **2. BACT Guidance:**

Per District Policy APR 1305, Section IX, "A top-down BACT analysis shall be performed as a part of the Application Review for each application subject to the BACT requirements pursuant to the District's NSR Rule." For source categories or classes covered in the BACT Clearinghouse, relevant information under each of the steps may be simply cited from the Clearinghouse without further analysis.

BACT Guideline 3.1.1, which appears in Appendix D of this document, covers emergency diesel-fired IC engines. Therefore, relevant information will be cited from the referenced BACT Guideline.

#### **3. BACT Analysis:**

Per District Policy APR 1305, Section IX, "A top-down BACT analysis shall be performed as a part of the Application Review for each application subject to the BACT requirements pursuant to the District's NSR Rule for source categories or classes covered in the BACT Clearinghouse, relevant information under each of the following steps may be simply cited from the Clearinghouse without further analysis." Pursuant to the attached Top-Down BACT Analysis, which appears in Appendix E of this document, BACT is satisfied with:

NOx: Latest EPA Tier Certification for applicable horsepower range, which is currently EPA Tier 3 for a 145 bhp diesel-fired IC engine.

## B. Offsets

### 1. Offset Applicability

Pursuant to Section 4.5.3, offset requirements shall be triggered on a pollutant-by-pollutant basis, unless exempt per Section 4.6. Offsets are triggered if the post-project SSPE2 totals equals or exceeds the following offset thresholds for any pollutant:

Pollutant	Offset Thresholds (lb/year)	SSPE2 (lb/year)	SSPE1 (lb/year)	Offsets Triggered
<b>NOx</b>	<b>20,000</b>	<b>58,904</b>	<b>58,860</b>	<b>Yes</b>
CO	200,000	36,785	36,744	No
VOC	20,000	2,705	2,294	No
<b>PM<sub>10</sub></b>	<b>29,200</b>	<b>369,140</b>	<b>369,090</b>	<b>Yes</b>
<b>SOx</b>	<b>54,750</b>	<b>2,286,202</b>	<b>2,286,202</b>	<b>Yes</b>

### 2. Quantity of Offsets Required

The SSPE2 for NOx, PM<sub>10</sub> and SOx emissions exceed the offset threshold and offsets are triggered only for NOx, PM<sub>10</sub> and SOx. However for this proposed project the source of NOx, PM<sub>10</sub>, and SOx is from the proposed emergency standby IC engine under ATC permit N-767-88-0, which is exempt from offset requirements per District Rule 2201, Section 4.6.2. Therefore, offsets are not required for the proposed emergency standby IC engine.

The other source of PM<sub>10</sub> emissions is from the handling, conveying, and screening of the fertilizer pellets under ATC permit N-767-87-0. However, as calculated in Section VII.C.2. the daily PE2 is equal to 0.2 lb-PM<sub>10</sub>/day. According to District Policy APR 1130, offsets will not be required for a permit unit with an increase in permitted emissions of less than 0.5 lb/day. Calculated values less than 0.5 lb/day are rounded to zero for the purposes of triggering NSR requirements. Therefore, the offset trigger level for PM<sub>10</sub> is exceeded, but offsets are not required.

## C. Public Notification

### 1. Applicability

District Rule 2201, section 5.4, requires a public notification for the affected pollutants from the following types of projects:

- a. New Major Sources
- b. SB-288 and Federal Major Modifications
- c. New emission units with a PE > 100 lb/day of any one pollutant
- d. Modifications with SSPE1 below an offset threshold and SSPE2 above an offset threshold on a pollutant by pollutant basis (Existing Facility Offset Threshold Exceedance Notification)
- e. New stationary sources with SSPE2 exceeding offset thresholds (New Facility Offset Threshold Exceedance Notification)
- f. Any permitting action with a SSPE exceeding 20,000 lb/yr for any one pollutant. (SSPE Notice)

**a. New Major Source Notice Determination:**

A New Major Source is a new facility, which is also a major source. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

**b. SB-288 and Federal Major Modification Notice Determination:**

As determined in Section VII.F. and G. of this document, this project does not trigger SB-288 or Federal Major Modification. Therefore, public notice is not required for SB-288 or Federal Major Modification purposes.

**c. PE Notification:**

As indicated in Section VII.C.2. (Daily PE2 Calculations) above, the proposed project will not result in the installation of new emission units with an increase in emissions of greater than 100 lb/day for any pollutant. Therefore, public noticing will be not required for PE > 100 lb/day purposes.

**d. Existing Facility - Offset Threshold Notification**

Existing facilities with the SSPE1 below the offset threshold resulting in an SSPE2 exceeding the offset threshold due to the proposed project for one or more pollutants will require public noticing. As shown in Section VIII.B.1. (Offset Applicability) of this document, the SSPE1 is above the offset threshold for NOx, PM<sub>10</sub>, and SOx prior to this project. Therefore, public noticing is not required for offset threshold exceedance purposes.

**e. New Facility - Offset Threshold Notification**

This is an existing facility. This section does not require a public notification.

**f. SSIPE Notification:**

A notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/yr of any affected pollutant. As shown in section VII.E.5. of this document, the SSIPE will not exceed 20,000 lb/year for any criteria pollutant as a result of this project. Therefore, public noticing will not be required for SSIPE exceeding 20,000 lb/year.

**2. Public Notice Action**

Rule 2201, Section 5.5 details the actions taken by the District when public noticing is triggered according to the application types above. As indicated above the public noticing requirements is not triggered for this project. Therefore, public notification and publication requirements as indicated in section 5.5 of this rule are **not required**.

**D. Daily Emissions Limits**

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.15 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, the DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

The following permit conditions will be placed on the Authority to Construct (ATC) permits and Permits to Operate (PTOs) to enforce the requirements of this section:

N-767-87-0:

- *The quantity of fertilizer pellets coated shall not exceed 100 tons during any one day and 20,000 tons in any rolling consecutive twelve month period. [District Rule 2201]*
- *Total PM<sub>10</sub> emissions from the loading, handling, conveying, and screening of the fertilizer pellets as controlled with a baghouse (4939-S-103) or dust collector (4939-S-104) shall not exceed 0.00242 pounds per ton of fertilizer pellets coated<sup>(4)</sup>. [District Rule 2201]*
- *The total quantity of fertilizer pellet coatings applied (excluding wax coatings) shall not exceed 8.4 tons in any one day and 1,680 tons in any rolling consecutive twelve month period. [District Rule 2201]*
- *VOC emissions from the usage of the fertilizer coatings shall not exceed 0.244 pounds per ton of coatings applied<sup>(5)</sup> (excluding wax coatings). [District Rule 2201]*

N-767-88-0:

- *Emissions from this IC engine shall not exceed any of the following limits: 2.73 g-NO<sub>x</sub>/bhp-hr, 0.671 g-CO/bhp-hr, or 0.127 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]*
- *Emissions from this IC engine shall not exceed 0.097 g-PM<sub>10</sub>/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]*

In addition, the DEL for SO<sub>x</sub> is established by the sulfur content of the fuel being combusted in the engine. Therefore, the following condition will be listed on the ATC permit to ensure compliance:

- *Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]*

## **E. Compliance Assurance**

The following measures shall be taken to ensure continued compliance with District Rules.

### **1. Source Testing**

N-767-87-0:

District Policy APR 1705 (Source Testing Frequency - 10/9/97) Section II. Step 4 requires initial and annual source testing for units equipped with carbon adsorption for control of VOC. The applicant is proposing to utilize two 180 lb (each) activated carbon canisters connected in series to control VOC emissions from the fertilizer

<sup>4</sup> Controlled PM<sub>10</sub> emission rate is equal to the following: 2 processing lines × 0.121 lb-PM<sub>10</sub>/ton × (1 - 0.99) = 0.00242 lb-PM<sub>10</sub>/ton of fertilizer pellets processed.

<sup>5</sup> Controlled VOC emission rate is equal to the following: 4.873 lb-VOC/ton × (1 - 0.95) = 0.244 lb-VOC/ton of coating applied

coating drum; therefore initial and annual source testing will be required to verify the proposed controlled VOC emission rate.

Pursuant to District APR 1710 (Source Test Methods), Appendix A, the below listed test methods are typically used for VOC emissions testing on activated carbon adsorption systems using gas chromatography or flame ionization. Permit conditions will be incorporated into the ATC to require the below listed test methods or other proposed test methods approved by the District.

VOC Emission Rate: EPA Methods 18 or 25A.

District Policy 1705 (10/9/97) Section II Step 4 requires initial source testing for non-combustion equipment served by a baghouse or dust collector with expected PM<sub>10</sub> emissions of 30 pounds per day or greater and annual source testing with expected PM<sub>10</sub> emission of 70 pounds per day. Pursuant to Section VII.C.2. of this document, the PM<sub>10</sub> emissions from this permit unit will not exceed 30 pounds per day; therefore, initial and annual source testing will not be required for the baghouse and dust collector associated with this permit unit.

N-767-88-0:

Pursuant to District Policy APR 1705 (Source Testing Frequency - 10/9/97), source testing is not required for emergency standby engines.

**2. Monitoring**

N-767-87-0:

The fertilizer coating drum is served by two activated carbon canisters connected in series. Based on the carbon adsorption system manufacturer the carbon canisters are expected to last at least 180 days prior to carbon breakthrough for the estimated maximum system loading from the polyurethane coatings. Therefore, monthly monitoring of the activated carbon adsorption system will be required to verify the proposed VOC emission rate and to prevent premature carbon breakthrough.

To ensure compliance with the monitoring requirements of the activated carbon adsorption system, the following condition will be included on the ATC permit and PTO:

- *Ongoing compliance with the daily VOC emission limit shall be demonstrated at least once per month by sampling the effluent gas stream of the first activated carbon canister in series using a Honeywell MDA Scientific SPM monitor or other District-approved VOC monitor. If the results from the sampling of the effluent gas stream of the first activated carbon canister exceed the daily VOC emission limit, the permittee will immediately sample the effluent gas stream of the second activated carbon canister in series using a Honeywell MDA Scientific SPM monitor or other District-approved VOC monitor. The Honeywell MDA Scientific SPM monitor or other District-approved VOC monitor shall be calibrated and maintained as recommended by the equipment manufacturer. [District Rules 1081 and 2201]*

The particulate matter emissions from the loading, conveying, screening of the process materials and final polyurethane coated products will be controlled with a baghouse or dust collector. To ensure compliance with the monitoring

requirements of the baghouse and dust collector, the following conditions will be included on the ATC permit and PTO:

- *The baghouse and dust collector shall be equipped with a pressure differential gauge to indicate the pressure drop across the filters. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201]*
- *The differential pressure gauge reading range for baghouse and dust collector shall be established per manufacturer's recommendation at time of the start-up inspection. [District Rule 2201]*
- *The baghouse and dust collector differential operating pressure shall be monitored and recorded each day that the fertilizer coating processing equipment is operated. [District Rule 2201]*

N-767-88-0:

There are no monitoring requirements for emergency standby IC engines.

**3. Record Keeping**

N-767-87-0:

To ensure compliance with the recordkeeping requirement, the following conditions will be included on the ATC permit and PTO:

- *The permittee shall maintain a daily record of the following: (a). The quantity of fertilizer pellets processed through the coating equipment (in tons/day); (b). The type and quantity of each fertilizer coating applied (in tons/day); (c). The baghouse and dust collector differential pressure reading (in inches of water column). [District Rule 1070 and 2201]*
- *The permittee shall maintain a record of the cumulative rolling 12 month total of the quantity of fertilizer pellets processed through the coating equipment (in tons) and the quantity of fertilizer coating applied (in tons). The cumulative totals shall be updated at least monthly. [District Rules 1070 and 2201]*
- *Records of the monthly monitoring of the effluent gas stream of the activated carbon canister(s), to determine the VOC emissions rate, with the Honeywell MDA Scientific SPM monitor or other District-approved VOC monitor shall be maintained. [District Rules 1070 and 2201]*
- *Records of all maintenance of the baghouse and dust collector, including all change outs of filter media, shall be maintained. [District Rules 1070 and 2201]*
- *Records of all maintenance of the activated carbon canisters, including all change outs of the spent carbon canisters, shall be maintained. [District Rules 1070 and 2201]*
- *Records of all calibration and maintenance of the Honeywell MDA Scientific SPM monitor or other District-approved VOC monitor shall be maintained. [District Rules 1070 and 2201] N*

- *All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070 and 2201]*

N-767-88-0:

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. As required by District Rule 4702 (Stationary Internal Combustion Engines - Phase 2) this IC engine is subject to recordkeeping requirements. Recordkeeping requirements, in accordance with District Rule 4702, will be discussed in Section VIII, *District Rule 4702*, of this evaluation.

**4. Reporting**

N-767-87-0:

The permittee will be required to submit the results of each source test within 60 days after completing the tests.

N-767-88-0:

There are no reporting requirements for emergency standby IC engines powering an electric generator.

**Rule 2410 - Prevention of Significant Deterioration (PSD)**

N-767-87-0 and N-767-88-0:

As determined in Section VII. H. above, this project does not result in a new PSD major source or PSD major modification. No further discussion is required.

**Rule 2520 - Federally Mandated Operating Permits:**

N-767-87-0 and N-767-88-0:

This facility was issued their Title V Operating Permit. The proposed project constitutes a **Minor** Modification to the Title V Permit pursuant to Section 3.20 of this Rule. The applicant has proposed to receive the ATC permit with a Certificate of Conformity in accordance with the requirements of 40 CFR 70.6(c), 70.7 and 70.8. Therefore, the 45-day EPA notice will be conducted prior to the issuance of the ATC.

In accordance with Rule 2520, the application meets the procedural requirements of Section 11.4 by including:

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs and
- The source's suggested draft permit (Appendix A of this document) and
- Certification by a responsible official that the proposed modification meets the criteria for use of major permit modification procedures and a request that such procedures be used (Appendix F of this document).

Per section 5.3.2 of this rule, the applicant must submit an application for a Title V permit modification prior to implementing the requested changes. The following federally enforceable conditions will be placed on the ATC permit to ensure compliance with this rule:

- *{1830} This Authority to Construct serves as a written Certificate of Conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2520] Y*
- *{1831} Prior to operating with the modifications authorized by this Authority to Construct, the facility shall submit an application for an administrative amendment to its Title V permit, in accordance with District Rule 2520, Section 11.4.2. [District Rule 2520] Y*

Compliance with this rule is expected.

#### **Rule 4001 - New Source Performance Standards (NSPS)**

This rule incorporates the New Source Performance Standards from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR). New sources of air pollution and modification of existing sources of air pollution shall comply with the standards, criteria, and requirements set forth in the applicable subparts of 40 CFR Part 60.

##### N-767-87-0:

For this proposed fertilizer coating operation, there are currently no subparts of 40 CFR Part 60 that apply to this operation; therefore, no further discussion is required.

##### N-767-88-0:

#### **40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines**

This unit is subject to the requirements of section 60.4202(a)(2). This section states that subject units must meet the requirements of 40 CFR 89.112 and 40 CFR 89.113.

#### **40 CFR 89.112**

This section states that units manufactured in 2006 and later must meet EPA Tier 3 emission standards. A Tier 3 unit is proposed; therefore, the proposed engine will comply with this requirement.

#### **40 CFR 89.113**

The proposed engine is a constant speed unit and is exempt from this section per 89.113(c)(3).

#### **Rule 4002 – National Emissions Standards for Hazardous Air Pollutants (NESHAP)**

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution (HAP) listed in 40 CFR Part 61 or 40 CFR Part 63.

N-767-87-0:

As previously determined under Project N-1101616, this facility is a non-major source of air toxics, and is only subject to the area source NESHAP; however, no area source NESHAP applies to the proposed fertilizer coating operation. No further discussion is required.

N-767-88-0:

**40 CFR 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Emissions (RICE)**

The proposed engine is a new unit and as previously determined this facility is an area source of HAP emissions. Per section 63.6590(c), such units must comply with this subpart by complying with 40 CFR Part 60 Subpart IIII. As shown above, compliance with Subpart IIII will be met.

**Rule 4101 - Visible Emissions:**

N-767-87-0 and N-767-88-0:

As long as the equipment is properly maintained and operated the emission unit will not discharge into the atmosphere any air contaminant, other than uncombined water vapor, for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart or equivalent to 20% opacity. The following condition will be listed on the ATC permit and PTO to ensure compliance:

- *{15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]*

Per District Policy SSP 1005, the visible emissions from a baghouse/dust collector shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. If the equipment is properly maintained this condition should not be exceeded. The following condition will be included in the ATC permit and PTO to ensure compliance for the baghouse and dust collector serving the fertilizer coating operation under permit N-767-87-0:

- *Visible emissions from the exhaust of the baghouse and dust collector shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]*

Therefore, continued compliance with this rule is expected.

**Rule 4102 – Nuisance:**

N-767-87-0 and N-767-88-0:

As long as the equipment is properly maintained and operated the emission units will not discharge any air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such person or public or which cause or have a natural tendency to cause injury or damage to business or property. Therefore, the following condition will be listed on the ATC permit and PTO to ensure compliance:

- {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

Therefore, compliance with this rule is expected.

**California Health & Safety Code 41700 (Health Risk Analysis):**

N-767-87-0 and N-767-88-0:

District Policy APR 1905 – Risk Management Policy for Permitting New and Modified Sources specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (Appendix G), the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The resulting prioritization score, acute hazard index, chronic hazard index, and cancer risk for this project are shown below in the following table:

<b>RMR Summary</b>				
<b>Categories</b>	<b>N-767-87-0 (Baghouses)</b>	<b>N-767-88-0 (Diesel ICE)</b>	<b>Project Totals</b>	<b>Facility Totals</b>
<b>Prioritization Score</b>	0.0	0.0	0.0	>1
<b>Acute Hazard Index</b>	0.00	0.00	0.00	0.04
<b>Chronic Hazard Index</b>	0.01	0.00	0.01	0.01
<b>Maximum Individual Cancer Risk (10<sup>-6</sup>)</b>	0.00	0.1	0.1	5.6
<b>T-BACT Required?</b>	No	No		
<b>Special Permit Conditions?</b>	Yes	Yes		

The acute and chronic indices are below 1.0; and the cancer risk associated with the project is 0.1 in million, which is less than the 1 in a million. In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (TBACT).

To ensure that human health risks will not exceed District allowable levels; the following permit conditions will be included in the ATC permits and PTO:

N-767-87-0:

- The exhaust stack of the baghouse and dust collector shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper is acceptable), roof overhang, or any other obstruction. [District Rule 4102]

N-767-88-0:

- The exhaust stack of the IC engine shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper is acceptable), roof overhang, or any other obstruction. [District Rule 4102]

Compliance with the District's Risk Management Policy is expected.

**Rule 4201 - Particulate Matter Concentration:**

Section 3.0 of this Rule prohibits the release or discharge into the atmosphere from any single source operation, dust, fumes, or total suspended particulate matter emissions in excess of 0.1 grain per cubic foot of gas at dry standard conditions, as determined by the test methods in section 4.0 of this Rule.

N-767-87-0:

For the Mac Process Baghouse:

The particulate matter (PM) concentration from the exhaust of the baghouse is calculated as follows:

$$\begin{aligned} \text{PM Concentration (gr/scf)} &= \frac{(\text{PM emission rate}) \times (7,000 \text{ gr/lb})}{(\text{Exhaust flow rate}) \times (60 \text{ min/hr}) \times (24 \text{ hr/day})} \\ &= \frac{0.12 \text{ lb-PM/day} \times 7,000 \text{ gr/lb}}{14,726 \text{ dscfm} \times 60 \text{ min/hr} \times 24 \text{ hr/day}} \\ &= 0.00004 \text{ gr/scf} < 0.1 \text{ gr/dscf} \end{aligned}$$

For the Camfil Farr Dust Collector:

The particulate matter (PM) concentration from the exhaust of the dust collector is calculated as follows:

$$\begin{aligned} \text{PM Concentration (gr/scf)} &= \frac{(\text{PM emission rate}) \times (7,000 \text{ gr/lb})}{(\text{Exhaust flow rate}) \times (60 \text{ min/hr}) \times (24 \text{ hr/day})} \\ &= \frac{0.12 \text{ lb-PM/day} \times 7,000 \text{ gr/lb}}{7,849 \text{ dscfm} \times 60 \text{ min/hr} \times 24 \text{ hr/day}} \\ &= 0.00007 \text{ gr/scf} < 0.1 \text{ gr/dscf} \end{aligned}$$

Therefore, the particulate matter concentration from the baghouse and dust collector will not exceed the maximum allowable 0.1 grains/dscf and compliance with this rule is expected.

The following condition will be listed on the ATC permit and PTO to ensure compliance with this Rule:

- {14} *Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]*

N-767-88-0:

Rule 4201 limits particulate matter emissions from any single source operation to 0.1 g/dscf, which, as calculated below, is equivalent to a PM<sub>10</sub> emission factor of 0.4 g-PM<sub>10</sub>/bhp-hr.

$$0.1 \frac{\text{grain-PM}}{\text{dscf}} \times \frac{\text{g}}{15.43 \text{ grain}} \times \frac{1 \text{ Btu}_{in}}{0.35 \text{ Btu}_{out}} \times \frac{9,051 \text{ dscf}}{10^6 \text{ Btu}} \times \frac{2,542.5 \text{ Btu}}{1 \text{ bhp-hr}} \times \frac{0.96 \text{ g-PM}_{10}}{1 \text{ g-PM}} = 0.4 \frac{\text{g-PM}_{10}}{\text{bhp-hr}}$$

The proposed diesel-fired IC engine has a PM<sub>10</sub> emission factor less than 0.4 g/bhp-hr. Therefore, compliance is expected and the following condition will be listed on each ATC permit to ensure compliance:

- {14} *Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]*

**Rule 4202 – Particulate Matter Emission Rate:**

N-767-87-0:

The purpose of this rule is to limit particulate matter emissions by establishing allowable emission rates. Per section 4.1, particulate matter emissions from any source operation shall not exceed the allowable hourly emission rate as calculated using the following applicable formulas:

$$E = 3.59 \times P^{0.62} \text{ - if } P \leq 30 \text{ tons/hr}$$

$$E = 17.31 \times P^{0.16} \text{ - if } P > 30 \text{ tons/hr}$$

Where, E = emissions in lb/hr  
 P = process weight rate in tons/hr

Since the process rate for this permit unit is less than 30 tons/hr, the formula for the maximum allowable hourly emission rate is:

$$E_{Max.} = 3.59 P^{0.62}$$

Permit Number	P (ton/hr)	E <sub>Proposed</sub> (lb-PM/hr)	E <sub>Max.</sub> (lb/hr)
N-767-87-0 <sup>(6)</sup>	4.17	0.0083	8.7

Since the proposed PM Emission rate is less than the allowable maximum emission rate, this permit unit is expected to operate in compliance with this rule.

**Rule 4701 - Internal Combustion Engines – Phase 1**

N-767-88-0:

The requirements of District Rule 4702 are as stringent, or more stringent, to the requirements of District Rule 4701. Therefore, the proposed emergency internal combustion engine will comply with the requirements of District Rule 4702 and should also meet the requirements of District Rule 4701.

**Rule 4702 - Internal Combustion Engines – Phase 2**

N-767-88-0:

The following table demonstrates how the proposed engine(s) will comply with the requirements of District Rule 4702.

<sup>6</sup> For this permit unit the maximum process rate is 4.17 tons/hr based on a fertilizer pellet coating rate of 100 tons/day and operating 24 hrs/day. The E<sub>Proposed</sub> is 8.8 lb/hr based on an emission rate of 0.2 lb-PM/day and operating 24 hrs/day.

<b>District Rule 4702 Requirements Emergency Standby IC Engines</b>	<b>Proposed Method of Compliance with District Rule 4702 Requirements</b>
Operation of emergency standby engines is limited to 100 hours or less per calendar year for non-emergency purposes, verified through the use of a non-resettable elapsed operating time meter.	The Air Toxic Control Measure for Stationary Compression Ignition Engines (Stationary ATCM) limits this engine maintenance and testing to 50 hours/year. Thus, compliance is expected.
Emergency standby engines cannot be used to reduce the demand for electrical power when normal electrical power line service has not failed, or to produce power for the electrical distribution system, or in conjunction with a voluntary utility demand reduction program or interruptible power contract.	<p>The following conditions will be included on the permit:</p> <ul style="list-style-type: none"> <li>• An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rules 4701 and 4702]</li> <li>• This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rules 4701 and 4702]</li> </ul>
The owner/operator must operate and maintain the engine(s) and any installed control devices according to the manufacturers written instructions.	<p>The following conditions will be included on the permit:</p> <ul style="list-style-type: none"> <li>• This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]</li> </ul>
The owner/operator must monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier.	<p>The following condition will be included on the permit:</p> <ul style="list-style-type: none"> <li>• {3478} During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]</li> </ul>
Records of the total hours of operation of the emergency standby engine, type of fuel used, purpose for operating the engine, all hours of non-emergency and emergency operation, and support documentation must be maintained. All records shall be retained for a period of at least five years, shall be readily available, and be made available to the APCO upon request.	<p>The following conditions will be included on the permit:</p> <ul style="list-style-type: none"> <li>• The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative</li> </ul>

	<p>to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4701 and 4702, and 17 CCR 93115]</p> <ul style="list-style-type: none"> <li>• The permittee shall maintain monthly records of the type of fuel purchased. [District Rules 4701 and 4702, and 17 CCR 93115]</li> <li>• All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701 and 4702, and 17 CCR 93115]</li> </ul>
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**Rule 4801 - Sulfur Compounds**

N-767-88-0:

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO<sub>2</sub>, on a dry basis averaged over 15 consecutive minutes.

Using the ideal gas equation and the emission rates presented in Section VII.C.2 of this document, the sulfur compound emissions are calculated as follows:

$$\text{Volume SO}_2 = \frac{n RT}{P}$$

With: N = moles SO<sub>2</sub>

T (Standard Temperature) = 60°F = 520°R

P (Standard Pressure) = 14.7 psi

R (Universal Gas Constant) =  $\frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot \text{°R}}$

$$\frac{0.000015 \text{ lb} - \text{S}}{\text{lb} - \text{fuel}} \times \frac{7.1 \text{ lb}}{\text{gal}} \times \frac{64 \text{ lb} - \text{SO}_2}{32 \text{ lb} - \text{S}} \times \frac{1 \text{ MMBtu}}{9,051 \text{ scf}} \times \frac{1 \text{ gal}}{0.137 \text{ MMBtu}} \times \frac{\text{lb} - \text{mol}}{64 \text{ lb} - \text{SO}_2} \times \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} - \text{mol} \cdot \text{°R}} \times \frac{520 \text{°R}}{14.7 \text{ psi}} \times 1,000,000 = 1.0 \text{ ppmv}$$

Since 1.0 ppmv is ≤ 2,000 ppmv, this engine is expected to comply with Rule 4801. Therefore, the following condition (previously stated in this engineering evaluation) will be listed on the ATC permit and PTO to ensure compliance:

- {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115]

**California Health & Safety Code 42301.6 (School Notice)**

This facility will not be operated within 1,000 feet of a K-12 school site boundary. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not required for this project.

**Title 17 California Code of Regulations (CCR), Section 93115 - Airborne Toxic Control Measure for Stationary Compression Ignition (CI) Engines**

The following table demonstrates how the proposed engine(s) will comply with the requirements of Title 17 CCR Section 93115.

<b>Title 17 CCR Section 93115 Requirements for New Emergency IC Engines Powering Electrical Generators</b>	<b>Proposed Method of Compliance with Title 17 CCR Section 93115 Requirements</b>
Emergency engine(s) must be fired on CARB diesel fuel, or an approved alternative diesel fuel.	The applicant has proposed the use of CARB certified diesel fuel. The proposed permit condition, requiring the use of CARB certified diesel fuel, was included earlier in this evaluation under Rules 2201 and 4801.
The engine(s) must emit diesel PM at a rate less than or equal to 0.15 g/bhp-hr as specified in § 93115.6 (a)(3)(A) Table 1, Emissions Standards for New Stationary Emergency Standby Diesel-Fueled CI Engines.	The applicant has proposed the use of an engine that is CARB certified to comply with the applicable engine horsepower range standards for the model year as specified in § 93115.6 (a)(3)(A) Table 1 and the proposed diesel PM emissions rate is less than 0.15 g/bhp-hr.
The engine may not be operated more than 50 hours per year for maintenance and testing purposes.	<p>The following condition will be included on the permit:</p> <ul style="list-style-type: none"> <li>This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations or to supply power while maintenance is performed or repairs are made to the primary power supply. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per year. [District Rule 4702 and 17 CCR 93115]</li> </ul>
New stationary emergency standby diesel-fueled CI engines (> 50 bhp) must meet the standards as specified in § 93115.6 (a)(3)(A) Table 1, Emissions Standards for New Stationary Emergency Standby Diesel-Fueled CI Engines.	The applicant has proposed the use of an engine that is CARB certified to comply with the applicable engine horsepower range standards for the model year as specified in § 93115.6 (a)(3)(A) Table 1, which satisfies the ATCM.
Engines, with a PM10 emissions rate greater than 0.01 g/bhp-hr and located at schools, may not be operated for maintenance and testing whenever there is a school sponsored activity on the grounds. Additionally, engines located within 500 feet of school grounds may not be operated for maintenance and testing between 7:30 AM and 3:30 PM	The District has verified that the engine is not located within 500 feet of a K-12 school. Therefore, conditions prohibiting non-emergency usage of the engine during school hours will not be required on these permits.
An owner or operator shall maintain monthly records of the following: emergency use hours of operation; maintenance and testing hours of operation; hours of operation for emission testing; initial start-up testing hours; hours of operation for all other uses; and the type of fuel used. All records shall be retained for a minimum of 36 months.	Permit conditions enforcing these requirements were shown earlier in this evaluation under Rule 4702.

## California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The San Joaquin Valley Unified Air Pollution Control District (District) adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

### Greenhouse Gas (GHG) Significance Determination

The District's engineering evaluation (this document in Appendix H) demonstrates that the project would not result in an increase in project specific greenhouse gas emissions. The District therefore concludes that the project would have a less than cumulatively significant impact on global climate change.

### District CEQA Findings

The District is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that the activity will occur at an existing facility and the project involves negligible expansion of the existing use. Furthermore, the District determined that the activity will not have a significant effect on the environment. The District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15031 (Existing Facilities), and finds that the project is exempt per the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

## IX. Recommendation

Compliance with all applicable rules and regulations is expected. Issue ATC permits N-767-87-0 and N-767-88-0 subject to the permit conditions on the attached draft ATC permits in Appendix A.

## X. Billing Information

ATC Permit Number	Fee Schedule	Fee Description	Previous Fee Schedule
N-767-87-0	3020-01-D	Total Electric Motors: 172 hp	None
N-767-88-0	3020-10-B	145 bhp IC Engine	None

## **XI. Appendices**

- Appendix A:** Draft Authority to Construct (ATC) Permits N-767-87-0 and N-767-88-0
- Appendix B:** Gal-XE One Project Process Flow Diagram
- Appendix C:** Pre-Project Stationary Source Potential to Emit (SSPE1) Calculations
- Appendix D:** District BACT Clearinghouse Guideline 3.1.1
- Appendix E:** Top-Down BACT Analysis for NOx Emissions for ATC Permit N-767-88-0
- Appendix F:** Title V Modification – Compliance Certification Form
- Appendix G:** Risk Management Review Summary
- Appendix H:** CEQA Greenhouse Gas (GHG) Project Specific Analysis

**Appendix A**  
**Draft Authority To Construct Permits N-767-87-0 and N-767-88-0**

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

PERMIT NO: N-767-87-0

LEGAL OWNER OR OPERATOR: J R SIMPLOT COMPANY  
MAILING ADDRESS: PO BOX 198  
LATHROP, CA 95330

LOCATION: 16777 S. HOWLAND ROAD  
LATHROP, CA 95330

**EQUIPMENT DESCRIPTION:**

FERTILIZER PELLETS CONTROLLED TIME RELEASE COATING OPERATION CONSISTING OF THE FOLLOWING: (1) RECEIVING FEED HOPPER, FEED CONVEYOR, FEED ELEVATOR, FEED SCREEN, FLUID BED HEATER, FLUID BED DISCHARGE ELEVATOR, AND COATER SURGE FEED HOPPER ALL VENTED TO A MAC PROCESS BAGHOUSE (4939-S-103); (2) COATER WAX FEEDER, WAX HOPPER FILLER, COATING DRUM, COATER DISCHARGE CONVEYOR, VIBRATORY FEEDER, COATER ELEVATOR, PRODUCT SCREEN, PRODUCT SURGE HOPPER ALL VENTED TO A CAMFIL FARR APC MODEL FLTR-GS-XG0325 DUST COLLECTOR (4939-S-104). THE COATING DRUM IS ALSO VENTED TO TWO 180 LB (EACH) ACTIVATED CARBON CANISTERS CONNECTED IN SERIES AND IS VENTED THROUGH THE DUST COLLECTOR (4939-S-104).

ISSUANCE DATE: DRAFT  
**DRAFT**

**CONDITIONS**

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

**Arnaud Marjolle, Director of Permit Services**

N-767-87-0, Nov 26 2014, 3:55PM - CHANK Joint Inspection NOT Required

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475

6. Visible emissions from the exhaust of the baghouse (4939-S-103) and dust collector (4939-S-104) shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
7. {271} All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
8. The exhaust stack of the baghouse (4939-S-103) and dust collector (4939-S-104) shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper is acceptable), roof overhang, or any other obstruction. [District Rule 4102]
9. The baghouse (4939-S-103) and dust collector (4939-S-104) exhaust fans shall be switched on prior to the start-up of any fertilizer pellets loading, conveying, screening, coating, or packaging equipment. [District Rule 2201]
10. The baghouse (4939-S-103) and dust collector (4939-S-104) shall be maintained and operated according to manufacturer's specifications. [District Rule 2201]
11. The baghouse (4939-S-103) and dust collector (4939-S-104) cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201]
12. Material removed from the baghouse (4939-S-103) and dust collector (4939-S-104) shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201]
13. Replacement bags numbering at least 10% of the total number of bags in the baghouse (4939-S-103) shall be maintained on the premises. [District Rule 2201]
14. At least one replacement dust collector (4939-S-104) filter shall be maintained on the premises. [District Rule 2201]
15. The baghouse (4939-S-103) and dust collector (4939-S-104) shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauges shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201]
16. The differential pressure gauge reading range for the baghouse (4939-S-103) and dust collector (4939-S-104) shall be established per manufacturer's recommendation at time of the start up inspection. [District Rule 2201]
17. The baghouse (4939-S-103) and dust collector (4939-S-104) differential operating pressure shall be monitored and recorded each day that the fertilizer pellet coating processing equipment is operated. [District Rule 2201]
18. The fertilizer pellets coating drum shall be vented through two 180 pound (each) activated carbon canisters connected in series, which are vented through the dust collector. [District Rule 2201]
19. The carbon canisters removed from the system shall be sealed vapor tight. [District Rule 2201]
20. The quantity of fertilizer pellets coated shall not exceed 100 tons during any one day and 20,000 tons in any rolling consecutive twelve month period. [District Rule 2201]
21. Total PM10 emissions from the loading, handling, conveying, and screening of the fertilizer pellets as controlled with a baghouse (4939-S-103) or dust collector (4939-S-104) shall not exceed 0.00242 pounds per ton of fertilizer pellets coated. [District Rule 2201]
22. The total quantity of fertilizer pellet coatings applied (excluding wax coatings) shall not exceed 8.4 tons in any one day and 1,680 tons in any rolling consecutive twelve month period. [District Rule 2201]
23. VOC emissions from the usage of the fertilizer pellet coatings shall not exceed 0.244 pounds per ton of coatings applied (excluding wax coatings). [District Rule 2201]
24. Source testing to demonstrate compliance with the VOC emissions rate at the effluent gas stream of the first activated carbon canister in series shall be conducted within 120 day after initial start-up. Subsequent source testing shall be conducted at least once every twelve (12) months after the initial source test at either the effluent gas stream of the second activated carbon canister in series or at the exhaust of the associated dust collector (4939-S-104). Source testing shall be conducted with equipment in operational condition and while fertilizer pellets are being coated in the fertilizer pellet coating drum. [District Rule 2201]
25. During source testing, the permittee shall maintain records of the amount of fertilizer pellet coatings applied (in pounds) and the amount of fertilizer pellets coated (in tons). [District Rules 1081 and 2201]

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CONDITIONS CONTINUE ON NEXT PAGE

26. {109} Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
27. Source testing for VOC emissions shall be conducted using EPA Methods 18 or 25A. Alternative methods may be utilized provided they are previously approved by the District in writing. [District Rules 1081 and 2201]
28. {110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
29. Ongoing compliance with the daily VOC emission limit shall be demonstrated at least once per month by sampling the effluent gas stream of the first activated carbon canister in series using a Honeywell MDA Scientific SPM monitor or other District-approved VOC monitor. If the results from the sampling of the effluent gas stream of the first activated carbon canister exceed the daily VOC emission limit, the permittee will immediately sample the effluent gas stream of the second activated carbon canister in series using a Honeywell MDA Scientific SPM monitor or other District-approved VOC monitor. The Honeywell MDA Scientific SPM monitor or other District-approved VOC monitor shall be calibrated and maintained as recommended by the equipment manufacturer. [District Rules 1081 and 2201]
30. If the VOC emissions rate from the first activated carbon canister, as measured by the Honeywell MDA Scientific SPM monitor or other District-approved VOC monitor, exceeds the permitted limit the permittee shall return the emissions to below the VOC emissions limit as soon as possible, but no longer than 1 day of operation after detection. If the monitor continues to show emission limit exceedances after the first activated carbon canister after 1 day of operation following detection along with exceeding the VOC emissions limit at the effluent gas stream of the second activated carbon canister in series, the permittee shall notify the District within the following day and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation that is subject to enforcement action has occurred. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. A violation of the VOC emissions limit will be triggered if the monitor shows an exceedance after the second activated carbon canister or the certified source test shows an exceedance of the VOC emissions limit. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 1081 and 2201]
31. The permittee shall maintain a daily record of the following: (a). The quantity of fertilizer pellets processed through the coating equipment (in tons/day); (b). The type and quantity of each fertilizer coating applied (in tons/day); (c). The baghouse (4939-S-103) and dust collector (4939-S-104) differential pressure readings (in inches of water column). [District Rules 1070 and 2201]
32. The permittee shall maintain a record of the cumulative rolling 12 month total of the quantity of fertilizer pellets processed through the coating equipment (in tons) and the quantity of fertilizer coating applied (in tons). The cumulative totals shall be updated at least monthly. [District Rules 1070 and 2201]
33. Records of the monthly monitoring of the effluent gas stream of the activated carbon canister(s), to determine the VOC emissions rate, with the Honeywell MDA Scientific SPM monitor or other District-approved VOC monitor shall be maintained. [District Rules 1070 and 2201]
34. Records of all maintenance of the baghouse (4939-S-103) and dust collector (4939-S-104), including all change outs of filter media, shall be maintained. [District Rules 1070 and 2201]
35. Records of all maintenance of the activated carbon canisters, including all change outs of the spent carbon canisters, shall be maintained. [District Rules 1070 and 2201]
36. Records of all calibration and maintenance of the Honeywell MDA Scientific SPM monitor or other District-approved VOC monitor shall be maintained. [District Rules 1070 and 2201]
37. {3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

PERMIT NO: N-767-88-0

LEGAL OWNER OR OPERATOR: J R SIMPLOT COMPANY  
MAILING ADDRESS: PO BOX 198  
LATHROP, CA 95330

LOCATION: 16777 S. HOWLAND ROAD  
LATHROP, CA 95330

EQUIPMENT DESCRIPTION:  
145 BHP (INTERMITTENT) CUMMINS INC. MODEL QSB5-G3 TIER 3 CERTIFIED DIESEL-FIRED EMERGENCY  
STANDBY IC ENGINE POWERING AN ELECTRIC GENERATOR.

ISSUANCE DATE: DRAFT  
**DRAFT**

**CONDITIONS**

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
6. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
7. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, 17 CCR 93115, and 40 CFR Part 60 Subpart III]
8. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rules 4701 and 4702, 17 CCR 93115, and 40 CFR Part 60 Subpart III]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

**DRAFT**  
Arnaud Marjolle, Director of Permit Services  
N-767-88-0 On 23/2014 8:44AM - CHAMK Joint Inspection NOT Required

9. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR Part 60 Subpart III]
10. Emissions from this IC engine shall not exceed any of the following limits: 2.73 g-NOx/bhp-hr, 0.671 g-CO/bhp-hr, or 0.127 g-VOC/bhp-hr. [District Rule 2201, 17 CCR 93115, and 40 CFR Part 60 Subpart III]
11. Emissions from this IC engine shall not exceed 0.097 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR Part 60 Subpart III]
12. {3478} During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
13. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations or to supply power while maintenance is performed or repairs are made to the primary power supply. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 4701 and 4702, 17 CCR 93115, and 40 CFR Part 60 Subpart III]
14. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rules 4701 and 4702]
15. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rules 4701 and 4702]
16. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4701 and 4702, and 17 CCR 93115]
17. The permittee shall maintain monthly records of the type of fuel purchased. [District Rules 4701 and 4702, and 17 CCR 93115]
18. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701 and 4702, and 17 CCR 93115]

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# **Appendix B**

## **Gal-XE One Project Process Flow Diagram**



# **Appendix C**

## **Pre-Project Stationary Source Potential to Emit (SSPE1) Calculations**

### Pre-Project Stationary Source Potential to Emit (SSPE1) Calculations

Pursuant to District Rule 2201 Section 4.9, the SSPE1 is the potential to emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the stationary source and the quantity of Emission Reduction Credits (ERC) that have been banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site. Unless otherwise noted the annual emissions from these permit units are obtained from project #N-1131773.

Permit Number	SSPE1 (lb/year)				
	NOx	CO	VOC	SOx	PM10
N-767-1-9	0	0	0	3,650	8,760
N-767-2-4	0	0	0	0	0
N-767-3-4	0	0	0	0	0
N-767-5-6 <sup>(7)</sup>	0	0	0	0	0
N-767-6-17 (ATC Permit)	16,827	32,230	986	986	27,944
N-767-9-16 <sup>(8)</sup>	40,607	735	63	410,296	76,755
N-767-11-9 (ATC Permit) <sup>(9)</sup>	0	0	0	0	23,762
N-767-12-6 <sup>(6)</sup>	0	0	0	0	0
N-767-13-5	0	0	0	0	11,498
N-767-14-6	0	0	0	0	1,205
N-767-16-3	0	0	0	0	4,500
N-767-17-3	0	0	0	0	19,800
N-767-18-3	0	0	0	0	19,800
N-767-20-5	0	0	0	0	438
N-767-23-5	0	0	0	0	876
N-767-24-4	0	0	0	0	9,000
N-767-25-3	0	0	0	0	0
N-767-26-3	0	0	0	0	200
N-767-27-3	0	0	0	0	200
N-767-28-3	0	0	0	0	250
N-767-32-3	0	0	0	0	1,800
N-767-33-3	0	0	0	0	1,800
N-767-36-6	0	0	0	0	780
N-767-39-2	0	0	0	0	0
N-767-40-2	0	0	0	0	0
N-767-41-2	0	0	0	0	0
N-767-42-2	0	0	0	0	0
N-767-58-7	328	549	25	25	126
N-767-59-11	900	3,240	120	86	228
N-767-60-5	0	0	0	0	73
N-767-61-4	0	0	0	0	3,650
N-767-62-6	0	0	0	0	1,168
N-767-70-5	0	0	0	0	7,118

<sup>7</sup> These permit units were consolidated with permit N-767-6-17 as discussed under project #N-1121035.

<sup>8</sup> Annual PE for this unit was obtained from Section III.D.1. of this document.

<sup>9</sup> Annual PE for these units were obtained from project #N-1101616.

N-767-71-3	0	0	0	0	138,700
N-767-73-4	0	0	0	0	365
N-767-74-3	0	0	0	0	0
N-767-75-4	0	0	0	0	146
N-767-76-3	0	0	0	0	657
N-767-77-4	0	0	1,054	0	1,606
N-767-79-1	0	0	0	0	0
N-767-80-1	0	0	0	0	0
N-767-81-2	198	20	46	0	5
N-767-82-1	0	0	0	0	0
N-767-83-0 (ATC Permit) <sup>(8)</sup>	0	0	0	0	5,880
N-767-85-1 (ATC Permit) <sup>(10)</sup>	0	0	0	0	0
<b>Total Annual PE</b>	<b>58,860</b>	<b>36,774</b>	<b>2,294</b>	<b>415,043</b>	<b>369,090</b>
ERC N-74-5	0	0	0	6,240	0
ERC N-75-5	0	0	0	1,751,692	0
ERC N-1250-5 (Pending ERCs)	0	0	0	113,227	0
<b>Total SSPE1</b>	<b>58,860</b>	<b>36,774</b>	<b>2,294</b>	<b>2,286,202</b>	<b>369,090</b>

<sup>10</sup> This unit will only operate when permit units N-767-6 or N-767-9 is shut down for maintenance work. Since the emissions from permit units N-767-6 and N-767-9 are greater than the emissions from this unit, then the emissions from ATC permit N-767-85-1 will not be included in the SSPE1 total.

**Appendix D**  
**District BACT Clearinghouse Guideline 3.1.1**

San Joaquin Valley  
Unified Air Pollution Control District

**Best Available Control Technology (BACT) Guideline 3.1.1\***

Last Update: 9/10/2013

**Emergency Diesel IC engine**

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	Latest EPA Tier Certification level for applicable horsepower range*		
SOX	Very low sulfur diesel fuel (15 ppmw sulfur or less)		
PM10	0.15 g/bhp-hr or the Latest EPA Tier Certification level for applicable horsepower range, whichever is more stringent. (ATCM)		
NOX	Latest EPA Tier Certification level for applicable horsepower range*		
CO	Latest EPA Tier Certification level for applicable horsepower range*		

\*Note: for emergency engines 50 <= bhp < 75, Tier 4 Interim certification is the requirement; for emergency engines 75 <= bhp < 750, Tier 3 certification is the requirement; for emergency engines >= 750 bhp, Tier 2 certification is the requirement.

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

**\*This is a Summary Page for this Class of Source**

**Appendix E**  
**Top Down BACT Analysis for NOx Emissions**  
**for ATC Permit N-767-88-0**

## Top Down BACT Analysis for the Emergency Standby IC Engine:

BACT Guideline 3.1.1 (July 10, 2009) applies to emergency diesel IC engines. In accordance with the District BACT policy, information from that guideline will be utilized without further analysis.

### 1. BACT analysis for NO<sub>x</sub> emissions:

#### a. Step 1 - Identify all control technologies

BACT Guideline 3.1.1 identifies only the following option:

- *Latest EPA Tier Certification level for applicable horsepower range*

To determine the latest applicable Tier level, the following EPA and state regulations were consulted:

- 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
- 40 CFR Part 89 – Control of Emissions from New and In-Use Nonroad Compression – Ignition Engines
- 40 CFR Part 1039 – Control of Emissions from New and In-Use Nonroad Compression-Ignition Engines
- Title 17 CCR, Section 93115 - Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition (CI) Engines

40 CFR Parts 89 and 1039, which apply only to nonroad engines, do not directly apply because the proposed emergency engine does not meet the definition of a nonroad engine. Therefore, only Title 17 CCR, Section 93115 and 40 CFR Part 60 Subpart IIII apply directly to the proposed emergency engine.

Title 17 CCR, Section 93115.6(a)(3)(A) (CARB stationary diesel engine ATCM) applies to emergency standby diesel-fired engines and requires that such engines be certified to the emission levels in Table 1 (below). Please note that these levels are at least as stringent or more stringent than the emission levels in 40 CFR Subpart IIII.

Maximum Engine Power	Tier	Model Year(s)	PM	NMHC+NO <sub>x</sub>	CO
50 ≤ HP < 75 (37 ≤ kW < 56)	2	2007	0.15 (0.20)	5.6 (7.5)	3.7 (5.0)
	4i	2008+		3.5 (4.7)	
75 ≤ HP < 100 (56 ≤ kW < 75)	2	2007	0.15 (0.20)	5.6 (7.5)	3.7 (5.0)
	3	2008+		3.5 (4.7)	
100 ≤ HP < 175 (75 ≤ kW < 130)	3	2007	0.15 (0.20)	3.0 (4.0)	3.7 (5.0)
		2008+			

175 ≤ HP < 300 (130 ≤ kW < 225)	3	2007	0.15 (0.20)	3.0 (4.0)	2.6 (3.5)
		2008+			
300 ≤ HP < 600 (225 ≤ kW < 450)	3	2007	0.15 (0.20)	3.0 (4.0)	2.6 (3.5)
		2008+			
600 ≤ HP ≤ 750 (450 ≤ kW ≤ 560)	3	2007	0.15 (0.20)	3.0 (4.0)	2.6 (3.5)
		2008+			
HP > 750 (kW > 560)	2	2007	0.15 (0.20)	4.8 (6.4)	2.6 (3.5)
		2008+			

Additionally, 40 CFR Subpart IIII establishes emission standards for emergency diesel IC engines. These emission standards are the same as those specified in the CARB ATCM, except for engines rated greater than or equal to 50 and less than 75 hp. For such IC engines, the CARB ATCM is more stringent.

Therefore, the most stringent applicable emission standards are those listed in the CARB ATCM (Table 1).

Also, please note that neither the state ATCM nor the Code of Federal Regulations require the installation of IC engines meeting a higher Tier standard than those listed above for emergency applications, due to concerns regarding the effectiveness of the exhaust emissions controls during periods of short-term operation (such as testing operational readiness of an emergency engine).

The proposed engine is rated at 145 bhp. Therefore, the applicable control technology option is EPA Tier 3 certification.

**b. Step 2 - Eliminate technologically infeasible options**

The control option listed in Step 1 is not technologically infeasible.

**c. Step 3 - Rank remaining options by control effectiveness**

Ranking is not necessary since there is only one control option listed in Step 1.

**d. Step 4 - Cost Effectiveness Analysis**

The applicant has proposed the only control option remaining under consideration. Therefore, a cost effectiveness analysis is not required.

**e. Step 5 - Select BACT**

BACT for NO<sub>x</sub> will be the use of an EPA Tier 3 certified engine. The applicant is proposing such a unit. Therefore, the District's BACT requirements will be satisfied.

**Appendix F**  
**Title V Modification – Compliance Certification Form**

**San Joaquin Valley  
Unified Air Pollution Control District**

**TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM**

**I. TYPE OF PERMIT ACTION (Check appropriate box)**

- SIGNIFICANT PERMIT MODIFICATION                       ADMINISTRATIVE  
 MINOR PERMIT MODIFICATION                                       AMENDMENT

COMPANY NAME: J.R. Simplot Company	FACILITY ID: N-767
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: J.R. Simplot Company	
3. Agent to the Owner: N/A	

**II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):**

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:

  
 Signature of Responsible Official

6-18-2014  
 Date

John Yanak  
 Name of Responsible Official (please print)

California Manufacturing Manager  
 Title of Responsible Official (please print)

**RECEIVED**

JUN 18 2014

SJVAPCD  
 NORTHERN REGION

**Appendix G**  
**Risk Management Review Summary**

## San Joaquin Valley Air Pollution Control District Risk Management Review

To: Kai Chan, AQE – Permit Services  
 From: Trevor Joy, AQS  
 Date: October 7, 2014  
 Facility Name: J. R. Simplot Co  
 Location: 16777 Howland Road in Lathrop  
 Application #(s): N-767-87-0 and -88-0  
 Project #: 1142428

### A. RMR SUMMARY

Categories	Unit 87-0 Baghouses	Unit 88-0 Diesel ICE	Project Totals	Facility Totals
Prioritization Score	0.0	0.0	0.0	>1
Acute Hazard Index	0.00	0.00	0.00	0.04
Chronic Hazard Index	0.01	0.00	0.01	0.01
Maximum Individual Cancer Risk ( $10^{-6}$ )	0.00	0.1	0.1	5.6
T-BACT Required?	No	No		
Special Permit Conditions?	Yes	Yes		

### Proposed Permit Conditions

To ensure that human health risks will not exceed District allowable levels; the following permit conditions must be included for:

#### Unit # 87

The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102] N

#### Unit # 88

The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102] N

## B. RMR REPORT

### I. Project Description

Technical Services received a request on September 24, 2014 to perform a Risk Management Review for the proposed installation of a fertilizer coating operation with associated baghouses, unit 87-0; and 145 BHP Tier 3 certified diesel-fired emergency standby IC engine powering an electric generator, unit 88-0.

### II. Analysis

Technical Services performed a prioritization using the District's HEARTs database. Emissions were supplied by the engineer. In accordance with the District's *Risk Management Policy for Permitting New and Modified Sources* (APR 1905, March 2, 2001), risks from the proposed unit's toxic emissions were prioritized using the procedure in the 1990 CAPCOA Facility Prioritization Guidelines and incorporated in the District's HEARTs database. The prioritization score for the facility was greater than 1.0 (see RMR Summary Table). Therefore, a refined analysis was required and performed. AERMOD was used, with the parameters outlined below and concatenated meteorological data for Stocton 2009 to 2013 to determine the maximum dispersion factor at the nearest residential and business receptors. These dispersion factors were input into the HARP model to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Analysis Parameter Unit 87-0 process 1			
Closest Receptor - Business (m)	454	Closest Receptor - Resident (m)	671
PM Emissions (lbs/hr)	0.02	PM Emissions (lbs/yr)	102.5
Stack Height (m)	2.4	Calculated Stack Inside Diameter (m)	0.62
Gas Exit Velocity (acfm)	16,000	Gas Exit Temperature (K)	313

Analysis Parameter Unit 87-0 process 2			
Closest Receptor - Business (m)	454	Closest Receptor - Resident (m)	671
PM Emissions (lbs/hr)	0.02	PM Emissions (lbs/yr)	102.5
Stack Height (m)	2.7	Calculated Stack Inside Diameter (m)	0.35
Gas Exit Velocity (acfm)	8,000	Gas Exit Temperature (K)	294

<b>Analysis Parameter Unit 88-0 DICE</b>			
<b>Closest Receptor - Business (m)</b>	<b>454</b>	<b>Closest Receptor – Resident (m)</b>	<b>671</b>
<b>PM Emissions (g/bhp-hr)</b>	<b>0.15</b>	<b>Diesel Particulate Emissions (Lbs/yr)</b>	<b>2.4</b>
<b>Stack Height (m)</b>	<b>2.6</b>	<b>Stack Inside Diameter (m)</b>	<b>0.076</b>
<b>Gas Exit Velocity (m/s)</b>	<b>76</b>	<b>Gas Exit Temperature (K)</b>	<b>724</b>

### III. Conclusion

The acute and chronic hazard indices were below 1.0; and the cancer risk is less than or equal to 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

To ensure that human health risks will not exceed District allowable levels; the permit conditions listed on page 1 of this report must be included for this proposed unit.

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

#### Attachments:

- A. RMR request from the project engineer
- B. Prioritization score with toxic emissions summary
- C. HARP Risk Report
- D. Emissions e-mail

**Appendix H**  
**CEQA Greenhouse Gas (GHG) Project Specific Analysis**

## Project CO<sub>2</sub> Equivalent (CO<sub>2</sub>e) Emission Sources:

### N-767-87-0:

For the fertilizer pellets coating operation the only source of CO<sub>2</sub>e emissions are from use of dry ice for the cleaning of the coating drum. It is assumed that all of the dry ice used will be vaporized and emitted into the atmosphere as CO<sub>2</sub>. Per applicant, they will use a maximum of 2,000 lb of dry ice per cleaning event and 104 cleaning events per year for a total of 208,000 lb of dry ice used per year. Therefore, this usage rate will be used to determine the project CO<sub>2</sub>e emissions.

### N-776-88-0:

For the proposed 145 bhp diesel-fired emergency standby IC engine, the CO<sub>2</sub>e emissions are from the combustion of California low sulfur diesel fuel operating at 50 hours/year for maintenance and testing. Therefore, this engine operating time will be used to determine the project CO<sub>2</sub>e emissions.

## CO<sub>2</sub> Equivalent (CO<sub>2</sub>e) Emission Factors:

### N-767-87-0:

The CO<sub>2</sub> emission factor (EF<sub>CO<sub>2</sub>/Dry Ice Cleaning</sub>) from the dry ice drum cleaning operation will be based on the quantity of dry ice used. Therefore:

$$EF_{CO_2/Dry\ Ice\ Cleaning} = 1\ lb-CO_2\ emitted/lb-Dry\ Ice\ Used$$

### N-767-88-0:

The CO<sub>2</sub>e emission factor (EF<sub>CO<sub>2</sub>e/Diesel Combustion</sub>) from the combustion of California low sulfur diesel fuel was obtained from CARB. Therefore:

$$EF_{CO_2e/Diesel\ Combustion} = 0.000186757\ metric\ ton/bhp-hr$$

## Project GHG Emission Calculations:

$$\begin{aligned} \text{Annual CO}_2 \text{ Emissions}_{N-767-87-0} &= 208,000\ lb-Dry\ Ice\ Used/year \\ &\quad \times 1\ lb-CO_2/lb-Dry\ Ice\ Used \times 1\ metric\ ton/2,204.6\ lb \\ &= 94.348\ metric\ tons-CO_2/year \end{aligned}$$

$$\begin{aligned} \text{Annual CO}_2e \text{ Emissions}_{N-767-88-0} &= 145\ bhp \times 50\ hr/year \\ &\quad \times 0.000186757\ metric\ tons/bhp-hr \\ &= 1.354\ metric\ tons-CO_2e/year \end{aligned}$$

$$\begin{aligned} \text{Project Annual CO}_2e/Total &= \text{Annual CO}_2 \text{ Emissions}_{N-767-87-0} \text{ (metric tons-CO}_2\text{/year)} \\ &\quad + \text{Annual CO}_2e \text{ Emissions}_{N-767-88-0} \text{ (metric tons-CO}_2e\text{/year)} \\ &= 94.348\ metric\ tons-CO_2/year + 1.354\ metric\ tons-CO_2e/year \\ &= \mathbf{95.702\ metric\ tons-CO_2e/year} \end{aligned}$$

## **Conclusion**

As calculated above, there will be an increase in GHG emissions of 95.702 metric tons of CO<sub>2</sub>e due to this project. Per District Policy, project specific greenhouse gas emissions less than or equal to 230 metric tons-CO<sub>2</sub>e/year are considered to be zero for District permitting purposes and are exempt from further environmental review.