



AUG 29 2012

Tim Durham  
Ingomar Packing  
PO Box 1448  
Los Banos, CA 93635

**Re: Proposed Authorities to Construct / Certificate of Conformity (Minor Mod)  
District Facility # N-1276  
Project # N-1113286**

Dear Mr. Durham:

Enclosed for your review is the District's analysis of your application for Authorities to Construct for the facility identified above. You have requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The modifications are to install a cooling tower and an emergency fire pump powered by a compression ignition IC engine and to lower the PM10 emission limit of a boiler.

After addressing any EPA comments made during the 45-day comment period, the Authorities to Construct will be issued to the facility with a Certificate 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. Rupl Gill, Permit Services Manager, at (209) 557-6400.

Thank you for your cooperation in this matter.

Sincerely,



David Warner  
Director of Permit Services

DW:MS/st

Enclosures

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

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**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
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**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
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# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



AUG 29 2012

Gerardo C. Rios, Chief  
Permits Office  
Air Division  
U.S. EPA - Region IX  
75 Hawthorne St  
San Francisco, CA 94105

Re: **Proposed Authorities to Construct / Certificate of Conformity (Minor Mod)**  
**District Facility # N-1276**  
**Project # N-1113286**

Dear Mr. Rios:

Enclosed for your review is the District's engineering evaluation of an application for Authorities to Construct for Ingomar Packing, located at 9950 S. Ingomar Grade in Los Banos, California, which has been issued a Title V permit. Ingomar Packing is requesting that a Certificate of Conformity, with the procedural requirements of 40 CFR Part 70, be issued with this project. The modifications are to install a cooling tower and an emergency fire pump powered by a compression ignition IC engine and to lower the PM10 emission limit of a boiler.

Enclosed is the engineering evaluation of this application, a copy of the current Title V permit, and proposed Authorities to Construct # N-1276-3-14, N-1276-19-0 and N-1276-20-0 with Certificate of Conformity. After demonstrating compliance with the Authorities to Construct, the conditions will be incorporated into the facility's Title V permit through an administrative amendment.

Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter. If you have any questions, please contact Mr. Rupi Gill, Permit Services Manager, at (209) 557-6400.

Thank you for your cooperation in this matter.

Sincerely,

David Warner  
Director of Permit Services

DW:MS/st

Enclosures

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# Authority to Construct Application Review

Facility Name: Ingomar Packing  
Mailing Address: PO Box 1448  
Los Banos, CA 93635

Date: August 20, 2012

Contact Person: Tim Durham  
Telephone: (209) 826-9494 X 105

Engineer: Mark Schonhoff  
Application #: N-1276-3-14 (156 MMBtu/hr boiler)  
N-1276-19-0 (20,000 gallon per hour cooling tower)  
N-1276-20-0 (182 bhp emergency fire pump)  
Project #: N-1113286  
Deemed Complete: April 18, 2012

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## I. Proposal

### **N-1276-3-14 (boiler):**

The applicant has proposed to receive an Authority-to-Construct permit to lower the PM10 emission limit from 0.0076 lb/MMBtu to 0.0024 lb/MMBtu.

During the processing of application N-1276-3-12 (Project N-1094036), a fuel use limitation of 1,063,560 MMBtu/yr was to be added to the ATC, but was not. That error will be corrected at this time by adding that limitation to this ATC.

### **N-1276-19-0 (water cooling tower):**

The applicant is proposing to receive an Authority-to-Construct permit for a 20,000 gallon per minute water cooling tower.

### **N-1276-20-0 (emergency fire pump):**

The applicant has proposed to receive an Authority-to-Construct permit for an emergency fire pump powered by a 182 bhp diesel fueled IC engine.

### **General Proposals:**

The PM10 emission limit of the boiler is being reduced such that the permitting of the cooling tower and emergency fire pump do not cause the Stationary Source Potential to Emit (SSPE) balance to reach an offset threshold. To ensure that the necessary reductions are actually made, the proposed ATC will include a condition requiring simultaneous implementation of all of the proposed ATCs.

This permitting action is a Minor Modification to the facility Title V permit and the applicant has requested that the ATC's be issued with Certificates of Conformity.

## II. Applicable Rules

2201 New and Modified Stationary Source Review Rule (4/21/11)  
2520 Federally Mandated Operating Permits (6/21/01)  
4001 New Source Performance Standards (4/14/99)  
4002 National Emission Standards for Hazardous Air Pollutants (5/20/04)  
4101 Visible Emissions (2/17/05)  
4102 Nuisance (12/17/92)  
4201 Particulate Matter Concentration (12/17/92)  
4304 Equipment Tuning Procedure for Boilers, Steam Generators and process Heaters (10/19/09)  
4305 Boilers, Steam Generators and Process Heaters – Phase 2 (12/19/96)  
4306 Boilers, Steam Generators and Process Heaters – Phase 3 (10/16/08)  
4320 Advanced Emission Reduction Options for Boilers, Steam Generators and Process heaters Greater Than 5.0 MMBtu/hr (10/16/08)  
4701 Internal Combustion Engines – Phase 1 (August 21, 2003)  
4702 Internal Combustion Engines – Phase 2 (August 18, 2011)  
4801 Sulfur Compounds (12/17/92)  
Title 17, California Code of Regulations Section 93115 (Airborne Toxic Control Measure for Stationary Compression Ignition Engines)  
CH&SC 41700  
CH&SC 42301.6

## III. Project Location

9950 S. Ingomar Grade  
Los Banos, CA

The equipment is not located within 1,000 feet of a K-12 school.

## IV. Process Description

### **N-1276-3-14 (boiler):**

The boiler burns natural gas for the purpose of producing steam that is used in various operations at the plant.

### **N-1276-19-0 (water cooling tower):**

Hot process water flows to the cooling tower where heat is extracted by the evaporation of a small amount of the water. The water, which is now cooler, is returned to the process.

### **N-1276-20-0 (emergency fire pump):**

A diesel fueled IC engine is utilized to power an emergency fire pump.

## V. Equipment Listing

### N-1276-3:

#### **Premodification Equipment Listing:**

156 MMBTU/HR NEBRASKA MODEL N25-T-84 BOILER WITH A TODD RMB ULTRA-LOW NOX BURNER AND AN INDUCED FLUE GAS RECIRCULATION SYSTEM

#### **Post modification Equipment Listing:**

No change.

### N-1276-19-0:

20,000 GPM COOLING TOWER SERVED BY A DRIFT ELIMINATOR

### N-1276-20-0:

182 BHP CUMMINS MODEL 6 BTA 5.9 F1 DIESEL FIRED (TIER 1 CERTIFIED) EMERGENCY ENGINE POWERING A FIRE PUMP.

## VI. Emission Control Technology Evaluation

### N-1276-3:

No changes to the emission control system will occur, therefore, a re-evaluation is not necessary.

### N-1276-19-0:

Water evaporating from a cooling tower includes dissolved solids that enter the atmosphere (in the form of particulate matter) with the water. As the evaporated water exits the cooling tower it travels through a drift eliminator that consists of baffles. A large percentage of the water condenses on the baffles and drains back into the cooling tower.

### N-1276-20-0:

The engine meets Tier 1 emission standards for NO<sub>x</sub>, CO, VOC and PM<sub>10</sub> and will operate on ultra-low-sulfur fuel for SO<sub>x</sub> control.

## VII. General Calculations

### A. Assumptions

Assumptions will be stated as they are made.

### B. Emission Factors

#### **N-1276-3:**

Except for the postmodification PM10 emission factor, all are from the current Permit to Operate, with no changes proposed. The postmodification PM10 emission factor was proposed by the applicant.

Pollutant	Emission Factors – lb/MMBtu (ppmvd @ 3% O <sub>2</sub> )	
	Premodification	Postmodification
NO <sub>x</sub>	7 ppmvd @ 3% O <sub>2</sub> or 0.008 lb/MMBtu	7 ppmvd @ 3% O <sub>2</sub> or 0.008 lb/MMBtu
CO	100 ppmvd @ 3% O <sub>2</sub> or 0.074 lb/MMBtu	100 ppmvd @ 3% O <sub>2</sub> or 0.074 lb/MMBtu
VOC	0.0055 lb/MMBtu	0.0055 lb/MMBtu
SO <sub>x</sub>	0.00285 lb/MMBtu	0.00285 lb/MMBtu
PM10	0.0076 lb/MMBtu	0.0024 lb/MMBtu

There will be no increase in fuel usage, therefore, there will not be an increase in greenhouse gas emissions. GHG emission factor calculations are therefore not necessary.

#### **N-1276-19-0:**

The PM10 emissions will be calculated utilizing the total dissolved solids (TDS) content of the water, the throughput potential and the control provided by the drift eliminator manufacturer. Therefore, emission factor calculations are not necessary.

**N-1276-20-0:**

The NO<sub>x</sub>, CO, VOC and PM<sub>10</sub> emission factors are the Tier 1 standard for this engine and the SO<sub>x</sub> emission factor is the g/bhp-hr equivalent for fuel with a sulfur content of 15 ppmw (as calculated in District guidance document GEAR 11).

- NO<sub>x</sub>: 6.9 g/bhp-hr
- CO: 8.5 g/bhp-hr
- VOC: 1.0 g/bhp-hr
- SO<sub>x</sub>: 0.0051 g/bhp-hr
- PM<sub>10</sub>: 0.4 g/bhp-hr

**C. Potential to Emit (PE)**

**1. Potential to Emit**

**N-1276-3:**

Except for the postmodification PM<sub>10</sub> emissions, the potentials to emit are from the application review document for project N-1094036. The postmodification potential to emit of PM<sub>10</sub> is based on the newly proposed PM<sub>10</sub> emission factor. The pre and postmodification annual potentials to emit were calculated utilizing the 1,063,560 MMBtu/yr fuel usage limit that is explained in section I (Proposal) of this document.

Pollutant	Potentials to Emit (lb)			
	Premodification		Postmodification	
	Daily	Annual	Daily	Annual
NO <sub>x</sub>	30.0	8,508	30.0	8,508
CO	277.1	78,703	277.1	78,703
VOC	20.6	5,850	20.6	5,850
SO <sub>x</sub>	10.7	3,031	10.7	3,031
PM <sub>10</sub>	28.5	8,083	9.0	2,553

Fuel Usage Limit: 1,063,560 MMBtu/yr

$$PM_{10} = (156 \text{ MMBtu/hr})(0.0024 \text{ lb/MMBtu})(24 \text{ hr/day}) = 9.0 \text{ lb/day}$$

$$PM_{10} = (1,063,560 \text{ MMBtu/yr})(0.0024 \text{ lb/MMBtu}) = 2,553 \text{ lb/yr}$$

**N-1276-19-0:**

Flow Rate: 20,000 gallons/minute (applicant)  
TDS (maximum): 500 ppmw (applicant)  
Drift Rate: 0.001% (drift eliminator manufacturer spec.)  
Density of Water: 8.34 lb/gal

$$PE_{PM10} = (20,000 \text{ gal/min})(1,440 \text{ min/day})(8.34 \text{ lb/gal}) \\ \times (500 \text{ lb PM10}/10^6 \text{ lb water})(0.001/100) = 1.2 \text{ lb/day}$$

$$PE_{PM10} = (20,000 \text{ gal/min})(1,440 \text{ min/day})(365 \text{ days/yr})(8.34 \text{ lb/gal}) \\ \times (500 \text{ lb PM10}/10^6 \text{ lb water})(0.001/100) = 438 \text{ lb/yr}$$

**N-1276-20-0:**

The engine is rated at 182 bhp and the applicant has proposed a 50 hour per year non-emergency operating limit.

$$NO_x = (182 \text{ bhp})(6.9 \text{ g/bhp-hr})(\text{lb}/453.6 \text{ g})(24 \text{ hr/day}) = 66.4 \text{ lb/day}$$

$$NO_x = (182 \text{ bhp})(6.9 \text{ g/bhp-hr})(\text{lb}/453.6 \text{ g})(50 \text{ hr/yr}) = 138 \text{ lb/yr}$$

$$CO = (182 \text{ bhp})(8.5 \text{ g/bhp-hr})(\text{lb}/453.6 \text{ g})(24 \text{ hr/day}) = 81.9 \text{ lb/day}$$

$$CO = (182 \text{ bhp})(8.5 \text{ g/bhp-hr})(\text{lb}/453.6 \text{ g})(50 \text{ hr/yr}) = 171 \text{ lb/yr}$$

$$VOC = (182 \text{ bhp})(1.0 \text{ g/bhp-hr})(\text{lb}/453.6 \text{ g})(24 \text{ hr/day}) = 9.6 \text{ lb/day}$$

$$VOC = (182 \text{ bhp})(1.0 \text{ g/bhp-hr})(\text{lb}/453.6 \text{ g})(50 \text{ hr/yr}) = 20 \text{ lb/yr}$$

$$SO_x = (182 \text{ bhp})(0.0051 \text{ g/bhp-hr})(\text{lb}/453.6 \text{ g})(24 \text{ hr/day}) = 0.0 \text{ lb/day}$$

$$SO_x = (182 \text{ bhp})(0.0051 \text{ g/bhp-hr})(\text{lb}/453.6 \text{ g})(50 \text{ hr/yr}) = 0 \text{ lb/yr}$$

*The daily and annual SO<sub>x</sub> emissions were determined to be 0.049 lb and 0.1 lb respectively and were rounded to zero per District Policy 1130.*

$$PM_{10} = (182 \text{ bhp})(0.4 \text{ g/bhp-hr})(\text{lb}/453.6 \text{ g})(24 \text{ hr/day}) = 3.9 \text{ lb/day}$$

$$PM_{10} = (182 \text{ bhp})(0.4 \text{ g/bhp-hr})(\text{lb}/453.6 \text{ g})(50 \text{ hr/yr}) = 8 \text{ lb/yr}$$

## D. Increase in Permitted Emissions (IPE)

### 1. Quarterly IPE

#### **N-1276-3-14 (156 MMBtu/hr boiler):**

There will be a change in the potential to emit of only PM10.

$$\text{IPE}_{\text{PM10}} = 2,553 \text{ lb/yr} - 8,083 \text{ lb/yr} = -5,530 \text{ lb/yr} (-1,382.5 \text{ lb/qtr})$$

The emission profile for this ATC will include the following:

	NOx (lb)	SOx (lb)	PM10 (lb)	CO (lb)	VOC (lb)
Annual PE	8,508	3,031	2,553	78,703	5,850
Daily PE	30.0	10.7	9.0	277.1	20.6
Δ PE (Qtr 1)	0	0	-1,382	0	0
Δ PE (Qtr 2)	0	0	-1,382	0	0
Δ PE (Qtr 3)	0	0	-1,383	0	0
Δ PE (Qtr 4)	0	0	-1,383	0	0

#### **N-1276-19-0 (20,000 gallon per hour cooling tower):**

The emission profile for this ATC will include the following:

The unit will have only PM10 emissions.

$$\text{IPE}_{\text{PM10}} = 438 \text{ lb/yr} - 0 \text{ lb/yr} = 438 \text{ lb/yr} (109.5 \text{ lb/qtr})$$

	NOx (lb)	SOx (lb)	PM10 (lb)	CO (lb)	VOC (lb)
Annual PE	0	0	438	0	0
Daily PE	0	0	1.2	0	0
Δ PE (Qtr 1)	0	0	109	0	0
Δ PE (Qtr 2)	0	0	109	0	0
Δ PE (Qtr 3)	0	0	110	0	0
Δ PE (Qtr 4)	0	0	110	0	0

**N-1276-20-0 (208 bhp emergency fire pump):**

$IPE_{NOx} = 138 \text{ lb/yr} - 0 \text{ lb/yr} = 138 \text{ lb/yr} (34.5 \text{ lb/qtr})$   
 $IPE_{CO} = 171 \text{ lb/yr} - 0 \text{ lb/yr} = 171 \text{ lb/yr} (42.75 \text{ lb/qtr})$   
 $IPE_{VOC} = 20 \text{ lb/yr} - 0 \text{ lb/yr} = 20 \text{ lb/yr} (5 \text{ lb/qtr})$   
 $IPE_{SOx} = 0 \text{ lb/yr} - 0 \text{ lb/yr} = 0 \text{ lb/yr} (0.0 \text{ lb/qtr})$   
 $IPE_{PM10} = 8 \text{ lb/yr} - 0 \text{ lb/yr} = 8 \text{ lb/yr} (2.0 \text{ lb/qtr})$

The emission profile for this ATC will include the following:

	NOx (lb)	SOx (lb)	PM10 (lb)	CO (lb)	VOC (lb)
Annual PE	138	0	8	171	20
Daily PE	66.4	0.0	3.9	81.9	9.6
Δ PE (Qtr 1)	34	0	2	42	5
Δ PE (Qtr 2)	34	0	2	43	5
Δ PE (Qtr 3)	35	0	2	43	5
Δ PE (Qtr 4)	35	0	2	43	5

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

AIPE is used to determine whether or not Best Available Control Technology (BACT) is required for modified units.

$$AIPE = PE2 - HAPE$$

Where: PE2 is the post project PE, in lb/day  
HAPE is the Historically Adjusted Potential to Emit, in lb/day.

Where:  $HAPE = PE1(EF2/EF1)$

Where: PE1 is the pre-project PE, in lb/day  
EF1 is the pre-project emission factor  
EF2 is the post-project emission factor

Note: If EF2 is greater than EF1, then EF2/EF1 is set to 1

**N-1276-3-14:**

As can be seen, neither the potential to emit or the emission factor will increase for any pollutant. Therefore, AIPE is zero for all pollutants.

**N-1276-19-0 and N-1276-20-0:**

These units are new, therefore AIPE calculations are not necessary.

## E. Facility Emissions

### 1. Pre Project Stationary Source Potential to Emit (SSPE1)

The facility consists of the six boilers currently under consideration and one abrasive blasting operation. Per District policy GEAR 4, abrasive blasting operations are not subject to the New and Modified Stationary Review Rule (Rule 2201) and its emissions therefore do not contribute to the SSPE2 balance.

Permit #	Emission Factors (lb/MMBtu)				
	NOx	CO	VOC	SOx	PM <sub>10</sub>
N-1276-1-12	0.0062	0.074	0.00292	0.00285	0.00523
N-1276-2-13	0.0062	0.074	0.0055	0.00285	0.0076
N-1276-3-12	0.008	0.074	0.0055	0.00285	0.0076
N-1276-8-6	0.008	0.074	0.0004	0.00285	0.0033
N-1276-9-6	0.008	0.074	0.0004	0.00285	0.0033
N-1276-15-3	0.0062	0.037	0.0055	0.00285	0.0076
N-1276-18-0					
Non Start-up	0.0062	0.074	0.004	0.00285	0.0076
Start-up	0.048	0.3	0.004	0.00285	0.0076

Combined Fuel Use Limit: 19,600 MMBtu/day

N-1276-1-12 Fuel Use Limit: 2,160 MMBtu/day (788,400 MMBtu/yr)

N-1276-2-13 Fuel Use Limit: 2,160 MMBtu/day (788,400 MMBtu/yr)

N-1276-3-12 Fuel Use Limit: 3,744 MMBtu/day (1,063,560 MMBtu/yr)

N-1276-8-6 Fuel Use Limit: 4,380 MMBtu/day (1,598,700 MMBtu/yr)

N-1276-9-6 Fuel Use Limit: 4,380 MMBtu/day (864,000 MMBtu/yr)

N-1276-15-3 Fuel Use Limit: 2,352 MMBtu/day (200,000 MMBtu/yr)

N-1276-18-0 Fuel Use Limit: 4,320 MMBtu/day (475,000 MMBtu/yr)

**NO<sub>x</sub>:**

The combined fuel usage limit for the boilers is 19,600 MMBtu/day. To calculate the worst case annual potential to emit, it will be assumed that the units burn their maximum fuel allotment in the order of descending NO<sub>x</sub> emission factors. The maximum fuel allotment will be the unit's rated fuel burning capacity or its permitted fuel burning limit, whichever is lower.

N-1276-18-0 burns:	90 MMBtu/day & 3,600 MMBtu/yr @ 0.048 lb NO <sub>x</sub> /MMBtu
N-1276-3-12 burns:	3,744 MMBtu/day & 1,063,560 MMBtu/yr @ 0.008 lb NO <sub>x</sub> /MMBtu
N-1276-8-6 burns:	4,380 MMBtu/day & 1,598,700 MMBtu/yr @ 0.008 lb NO <sub>x</sub> /MMBtu
N-1276-9-6 burns:	4,380 MMBtu/day & 864,000 MMBtu/yr @ 0.008 lb NO <sub>x</sub> /MMBtu
N-1276-18-0 burns:	4,140 MMBtu/day & 471,400 MMBtu/yr @ 0.0062 lb NO <sub>x</sub> /MMBtu
N-1276-15-3 burns:	2,352 MMBtu/day & 200,000 MMBtu/yr @ 0.0062 lb NO <sub>x</sub> /MMBtu
N-1276-1-12 burns:	<u>514 MMBtu/day</u> & 187,610 MMBtu/yr @ 0.0062 lb NO <sub>x</sub> /MMBtu
Daily Total	19,600 MMBtu/day

$$\begin{aligned}
 \text{SSPE}_{1\text{NO}_x} &= (3,600 \text{ MMBtu/yr})(0.048 \text{ lb/MMBtu}) \\
 &\quad + (1,063,560 + 1,598,700 + 864,000) \text{ MMBtu/yr} (0.008 \text{ lb/MMBtu}) \\
 &\quad + (471,400 + 200,000 + 187,610) \text{ MMBtu/yr} (0.0062 \text{ lb/MMBtu}) \\
 &= 33,709 \text{ lb/yr}
 \end{aligned}$$

**CO:**

The combined fuel usage limit for the boilers is 19,600 MMBtu/day. To calculate the worst case annual potential to emit, it will be assumed that the units burn their maximum fuel allotment in the order of descending CO emission factors. The maximum fuel allotment will be the unit's rated fuel burning capacity or its permitted fuel burning limit, whichever is lower.

N-1276-18-0 burns:	90 MMBtu/day & 3,600 MMBtu/yr @ 0.3 lb CO/MMBtu
N-1276-1-12 burns:	2,160 MMBtu/day & 788,400 MMBtu/yr @ 0.074 lb CO/MMBtu
N-1276-2-13 burns:	2,160 MMBtu/day & 788,400 MMBtu/yr @ 0.074 lb CO/MMBtu
N-1276-3-12 burns:	3,744 MMBtu/day & 1,063,560 MMBtu/yr @ 0.074 lb CO/MMBtu
N-1276-8-6 burns:	4,380 MMBtu/day & 1,598,700 MMBtu/yr @ 0.074 lb CO/MMBtu
N-1276-9-6 burns:	4,380 MMBtu/day & 864,000 MMBtu/yr @ 0.074 lb CO/MMBtu
N-1276-18-0 burns:	<u>2,686 MMBtu/day</u> & 471,400 MMBtu/yr @ 0.074 lb CO/MMBtu
Daily Total:	19,600 MMBtu/day

$$\begin{aligned}
 \text{SSPE}_{1\text{CO}} &= (3,600 \text{ MMBtu/yr})(0.3 \text{ lb/MMBtu}) + \\
 &\quad + (788,400 + 788,400 + 1,063,560 + 1,598,700 + 864,000 \\
 &\quad + 471,400) \text{ MMBtu/yr} (0.074 \text{ lb/MMBtu}) \\
 &= 413,590 \text{ lb/yr}
 \end{aligned}$$

## VOC:

The combined fuel usage limit for the boilers is 19,600 MMBtu/day. To calculate the worst case annual potential to emit, it will be assumed that the units burn their maximum fuel allotment in the order of descending VOC emission factors. The maximum fuel allotment will be the unit's rated fuel burning capacity or its permitted fuel burning limit, whichever is lower.

Assume:

N-1276-2-13 burns:	2,160 MMBtu/day & 788,400 MMBtu/yr @ 0.0055 lb VOC/MMBtu
N-1276-3-12 burns:	3,744 MMBtu/day & 1,063,560 MMBtu/yr @ 0.0055 lb VOC/MMBtu
N-1276-15-3 burns:	2,352 MMBtu/day & 200,000 MMBtu/yr @ 0.0055 lb VOC/MMBtu
N-1276-18-0 burns:	4,320 MMBtu/day & 475,000 MMBtu/yr @ 0.004 lb VOC/MMBtu
N-1276-1-12 burns:	2,160 MMBtu/day & 788,400 MMBtu/yr @ 0.00292 lb VOC/MMBtu
N-1276-8-5 burns:	4,380 MMBtu/day & 1,598,700 MMBtu/yr @ 0.0004 lb VOC/MMBtu
N-1276-9-5 burns:	<u>484 MMBtu/day</u> & 176,660 MMBtu/yr @ 0.0004 lb VOC/MMBtu
Daily total	19,600 MMBtu/day

$$\begin{aligned} \text{SSPE}_{\text{VOC}} &= (788,400 + 1,063,560 + 200,000) \text{ MMBtu/yr} (0.0055 \text{ lb/MMBtu}) \\ &\quad + (475,000 \text{ MMBtu/yr})(0.004 \text{ lb/MMBtu}) \\ &\quad + (788,400 \text{ MMBtu/yr})(0.00292 \text{ lb/MMBtu}) \\ &\quad + (1,598,700 + 176,660) \text{ MMBtu/yr} (0.0004 \text{ lb/MMBtu}) \\ &= 16,198 \text{ lb/yr} \end{aligned}$$

## SO<sub>x</sub>:

The combined fuel usage limit for the boilers is 19,600 MMBtu/day. To calculate the worst case annual potential to emit, it will be assumed that the units will operate under the scenario that will maximize the annual permitted fuel use.

N-1276-1-12 burns:	2,160 MMBtu/day & 788,400 MMBtu/yr @ 0.00285 SO <sub>x</sub> /MMBtu
N-1276-2-13 burns:	2,160 MMBtu/day & 788,400 MMBtu/yr @ 0.00285 lb SO <sub>x</sub> /MMBtu
N-1276-3-12 burns:	3,744 MMBtu/day & 1,063,560 MMBtu/yr @ 0.00285 lb SO <sub>x</sub> /MMBtu
N-1276-8-6 burns:	4,380 MMBtu/day & 1,598,700 MMBtu/yr @ 0.00285 lb SO <sub>x</sub> /MMBtu
N-1276-9-6 burns:	4,380 MMBtu/day & 864,000 MMBtu/yr @ 0.00285 lb SO <sub>x</sub> /MMBtu
N-1276-18-0 burns:	<u>2,776 MMBtu/day</u> & 475,000 MMBtu/yr @ 0.0285 lb SO <sub>x</sub> /MMBtu
Daily Total:	19,600 MMBtu/day

$$\begin{aligned} \text{SSPE}_{\text{SO}_x} &= (788,400 + 788,400 + 1,063,560 + 1,598,700 + 864,000 \\ &\quad + 475,000 \text{ MMBtu/yr})(0.00285 \text{ lb/MMBtu}) = 15,897 \text{ lb/yr} \end{aligned}$$

**PM<sub>10</sub>:**

The combined fuel usage limit for the boilers is 19,600 MMBtu/day. To calculate the worst case annual potential to emit, it will be assumed that the units burn their maximum fuel allotment in the order of descending PM10 emission factors. The maximum fuel allotment will be the unit's rated fuel burning capacity or its permitted daily fuel burning limit, whichever is lower.

Assume:

N-1276-2-13 burns: 2,160 MMBtu/day & 788,400 MMBtu/yr @ 0.0076 lb PM<sub>10</sub>/MMBtu  
 N-1276-3-12 burns: 3,744 MMBtu/day & 1,063,560 MMBtu/yr @ 0.0076 lb PM<sub>10</sub>/MMBtu  
 N-1276-15-3 burns: 2,352 MMBtu/day & 200,000 MMBtu/yr @ 0.0076 lb PM<sub>10</sub>/MMBtu  
 N-1276-18-0 burns: 4,320 MMBtu/day & 475,000 MMBtu/yr @ 0.0076 lb PM<sub>10</sub>/MMBtu  
 N-1276-1-12 burns: 2,160 MMBtu/day & 788,400 MMBtu/yr @ 0.00523 lb PM<sub>10</sub>/MMBtu  
 N-1276-8-6 burns: 4,380 MMBtu/day & 1,598,700 MMBtu/yr @ 0.0033 lb PM<sub>10</sub>/MMBtu  
 N-1276-9-6 burns: 484 MMBtu/day & 176,660 MMBtu/yr @ 0.0033 lb PM<sub>10</sub>/MMBtu  
 Daily Total 19,600 MMBtu/day

$$\begin{aligned}
 \text{SSPE1}_{\text{PM}_{10}} &= (788,400 + 1,063,560 + 200,000 + 475,000) \text{ MMBtu/yr} (0.0076 \text{ lb/MMBtu}) \\
 &\quad + (788,400 \text{ MMBtu/yr}) (0.00523 \text{ lb/MMBtu}) \\
 &\quad + (1,598,700 + 176,660) \text{ MMBtu/yr} (0.0033 \text{ lb/MMBtu}) \\
 &= 29,187 \text{ lb/yr}
 \end{aligned}$$

	SSPE1				
	NOx	CO	VOC	SOx	PM10
N-1276-1-13	33,709	413,590	16,198	15,897	29,187
N-1276-2-13					
N-1276-3-14					
N-1276-8-6					
N-1276-9-6					
N-1276-15-3					
N-1276-18-0					
ERC	0	0	0	0	0
Total	33,709	413,590	16,198	15,897	29,187

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

### NOx, CO, VOC and SOx from the existing equipment:

There will be no changes in the potential to emit of any of these pollutants.

### PM10 from the existing equipment:

There will be a change in the PM10 emissions from unit N-1276-3, therefore, the SSPE contribution for this unit must be recalculated:

The combined fuel usage limit for the boilers is 19,600 MMBtu/day. To calculate the worst case annual potential to emit, it will be assumed that the units burn their maximum fuel allotment in the order of descending PM10 emission factors. The maximum fuel allotment will be the unit's rated fuel burning capacity or its permitted daily fuel burning limit, whichever is lower.

Assume:

N-1276-2-13 burns: 2,160 MMBtu/day & 788,400 MMBtu/yr @ 0.0076 lb PM<sub>10</sub>/MMBtu  
 N-1276-15-3 burns: 2,352 MMBtu/day & 200,000 MMBtu/yr @ 0.0076 lb PM<sub>10</sub>/MMBtu  
 N-1276-18-0 burns: 4,320 MMBtu/day & 475,000 MMBtu/yr @ 0.0076 lb PM<sub>10</sub>/MMBtu  
 N-1276-1-12 burns: 2,160 MMBtu/day & 788,400 MMBtu/yr @ 0.00523 lb PM<sub>10</sub>/MMBtu  
 N-1276-8-6 burns: 4,380 MMBtu/day & 1,598,700 MMBtu/yr @ 0.0033 lb PM<sub>10</sub>/MMBtu  
 N-1276-9-6 burns: 4,228 MMBtu/day & 864,000 MMBtu/yr @ 0.0033 lb PM<sub>10</sub>/MMBtu  
 Daily Total 19,600 MMBtu/day

$$\begin{aligned} \text{SSPE}_{2\text{PM}_{10}} &= (788,400 + 200,000 + 475,000) \text{ MMBtu/yr} (0.0076 \text{ lb/MMBtu}) \\ &\quad + (788,400 \text{ MMBtu/yr})(0.00523 \text{ lb/MMBtu}) \\ &\quad + (1,598,700 + 864,000) \text{ MMBtu/yr} (0.0033 \text{ lb/MMBtu}) \\ &= 23,372 \text{ lb/yr} \end{aligned}$$

### Potential to Emit of the Proposed New Units (N-1276-19-0 and N-1276-20-0):

Refer to section VII.C.1 of this document.

	SSPE2				
	NOx	CO	VOC	SOx	PM10
N-1276-1-13	33,709	413,590	16,198	15,897	23,372
N-1276-2-13					
N-1276-3-14					
N-1276-8-6					
N-1276-9-6					
N-1276-15-3					
N-1276-18-0	0	0	0	0	438
N-1276-19-0					
N-1276-20-0	138	171	20	0	8
ERC	0	0	0	0	0
Total	33,847	413,761	16,218	15,897	23,818

### 3. Stationary Source Increase in Permitted Emissions (SSIPE)

$$\text{SSIPE} = \text{SSPE2} - \text{SSPE1}$$

The SSPE1 and SSPE2 balances are from sections VII.E.1 and VII.E.2 of this document.

	SSPE2 (lb/yr)	SSPE1 (lb/yr)	SSIPE (lb/yr)
NOx	33,847	33,709	33,308
CO	413,761	413,590	171
VOC	16,218	16,198	20
SOx	15,897	15,897	0
PM10	23,818	29,187	0

### 4. Baseline Emissions

#### NOx and CO:

The facility is a Major Source for NOx and CO. Section 3.8.1.4 of Rule 2201 states that for Major Source pollutants, the Baseline Emissions are equal to the premodification potential to emit if all units in the SLC are Clean Emission Units. The boiler is part of an SLC (fuel usage limit of 19,600 Btu/day), therefore, a Clean Emission Unit is required for each unit in the SLC.

BACT guideline 1.1.2 (Boilers > 20 MMBtu/hr), which applied to these units was rescinded and is being updated. That guideline set the Achieved-in-Practice BACT levels for NOx and CO at the levels shown on the table below. Since the guideline was in effect within the past 5 years, units meeting these requirements may be deemed Clean Emission Units.

Permit	Description	BACT Guideline	Requirement	Achieved-in-Practice BACT Met
N-1276-1-12 N-1276-2-13 N-1276-3-12 N-1276-8-6 N-1276-9-6 N-1276-15-3 N-1276-18-0	Boilers	1.1.2	NOx emissions of 9 ppmvd @ 3% O2 or less  CO – use of natural gas fuel	Yes, conditions 4 and 7 Yes, conditions 5 and 8 Yes, conditions 5 and 7 Yes, conditions 3 and 6 Yes, conditions 3 and 7 Yes, conditions 3 and 7 Yes, conditions 3 and 8

All of the units included in the SLC are Clean Emission Units for NOx and CO, therefore, the Baseline Emissions for NOx and CO are equal to the SLC.

$$\text{BE}_{\text{NOx}} = 33,709 \text{ lb/yr}$$

$$\text{BE}_{\text{CO}} = 413,590 \text{ lb/yr}$$

### VOC, SOx and PM10:

The purpose of determining Baseline Emissions is for use in quantity-of-offsets calculations. The SSPE2 of each of these pollutants is less than its offset threshold, therefore quantity-of-offset calculations are not necessary and a Baseline Emission determination is not required for these pollutants.

### **F. Major Source Determination**

The Major Source thresholds, the facility potentials to emit and whether or not the facility is a Major Source are presented on the following table. The Major Source thresholds are from Section 3.24.1. Since no emission reduction credits have been generated at this facility, the post-modification potential to emit is equivalent to the SSPE2.

Pollutant	Threshold (lb/yr)	Facility PE (lb/yr)	Major Source
NOx	20,000	33,847	Yes
CO	200,000	413,761	Yes
VOC	20,000	16,218	No
SOx	140,000	15,897	No
PM10	140,000	23,818	No

### **G. Major Modification Determination**

#### SB-288 Major Modification:

The purpose of SB-288 Major Modification calculations is to determine the following:

If Best Available Control Technology (BACT) is triggered for a new or modified emission unit that results in a Major Modification (District Rule 2201, §4.1.3); and

If a public notification is triggered (District Rule 2201, §5.4.1).

The SB-288 Major Modification Thresholds from section 3.36 of District Rule 2201 are shown on the following table:

Pollutant	Threshold (lb/yr)
NOx	50,000
VOC	50,000
SOx	80,000
PM10	30,000

The facility is a Major Source for only NOx and CO and as can be seen, there is not a Major Modification threshold for CO. Therefore, a SB-288 Major Modification determination is required only for NOx.

The table below shows the potential NOx emissions for the equipment included in this project:

Permit Unit	Potential to Emit of NOx (lb/yr)
N-1276-3-14	8,508
N-1276-19-0	0
N-1276-20-0	138
Total	8,646

As shown above, the combined potential to emit of the units in this project are less than the SB-288 Major Modification Threshold. Therefore, an SB-288 Major Modification cannot be triggered.

**Federal Major Modification:**

As shown in section VII.F of this document, the facility is a Major Source for NOx, and CO. Therefore, the proposed permitting action may be a Federal Major Modification. The Federal Major Modification thresholds are:

Pollutant	Threshold (lb/yr)
NOx	0
VOC	0
SOx	80,000
PM10	30,000
PM2.5	20,000 of direct PM2.5 or
	80,000 of SO <sub>2</sub> or
	80,000 of NOx

As can be seen, there is not a threshold for CO, therefore, this permitting action cannot be a Federal Major Modification for CO and a determination is necessary only for NOx. There are two NOx emitting units in this project; the boiler (N-1276-3-14) and the emergency fire pump (N-1276-20-0). The Net Emission Increases (NEI) will be calculated separately for each unit, the values summed to obtain a total NEI, and the total NEI compared to the above NOx threshold. The contributions are calculated separately for each unit per the District draft policy titled "Implementation of Rule 2201 (as amended on 12/18/08 and approved by EPA on 6/10/10) for SB 288 Major Modifications and Federal Major Modifications (9/28/10)".

**N-1276-2-14 (Natural Gas Fired Boiler):**

The District draft policy titled "Implementation of Rule 2201 (as amended on 12/18/08 and approved by EPA on 6/10/10) for SB 288 Major Modifications and Federal Major Modifications (9/28/10)" is referenced to determine the emissions increase. Case 2 in the draft policy states "If the proposed modification does not result in an increase in design capacity or potential to emit, and it does not allow the emission unit to operate at a higher utilization rate, then the unused baseline capacity emissions can also be excluded from the emission increase (EI).

Neither the rating or the utilization rate of the boiler will increase, therefore, the above referenced draft policy allows the unused baseline capacity to be included in the NEI calculation. NEI is as follows:

$NEI = PAE - BAE - \text{unused baseline capacity}$ , where

PAE = post-project projected actual emissions (equal to the potential to emit)

BAE = pre-project baseline actual emissions

unused baseline capacity =  $PE1 - BAE$

$$\begin{aligned} NEI &= PE2 - BAE - (PE1 - BAE) \\ &= PE2 - BAE - PE1 + BAE \\ &= PE2 - PE1 \end{aligned}$$

As shown in section VII.C of this document, PE2 will not exceed PE1 for NO<sub>x</sub>, therefore, the NEI of the boiler is zero.

**N-1276-20-0 (Diesel Fired Emergency Fire Pump):**

$NEI = PAE - BAE - \text{unused baseline capacity}$ , where

The unit is new, therefore, its BAE is zero it does not have any unused baseline capacity. Therefore:

$$NEI = PE$$

As shown in section VII.C.1, the PE of NO<sub>x</sub> is 138 lb/yr.

The District draft policy titled "Implementation of Rule 2201 (as amended on 12/18/08 and approved by EPA on 6/10/10) for SB 288 Major Modifications and Federal Major Modifications (9/28/10)" is referenced to determine the emissions increase. The policy states that if the emission increase, as calculated in accordance with District Policy APR-1130 is less than or equal to 0.5 lb/day then it is to be rounded to zero. The District is currently revising APR-1130 and in accordance with that draft policy, the daily emissions increase is:

$$IPE = (138 \text{ lb/yr}) / (365 \text{ days/yr}) = 0.4 \text{ lb/day}$$

For the reason stated above, the NEI contribution of the engine is 0 lb/yr.

**Net Emission Increase for units N-1276-3-14 and N-1276-20-0:**

$$NEI = 0 \text{ lb/yr} + 0 \text{ lb/yr} = 0 \text{ lb/yr}$$

The NEI does not exceed the Federal Major Modification threshold of 0 lb/yr, therefore, a Federal Major Modification is not triggered.

## VIII. Compliance

### Rule 2201 New and Modified Stationary Source Review Rule

#### A. BACT

##### 1. BACT Applicability

###### **New or Relocated Units:**

Except for CO, BACT is required for each pollutant with a PE of greater than 2.0 pounds per day. For CO, BACT is required if the PE of CO is greater than 2.0 pounds per day and the SSPE2 of CO is 200,000 pounds per year or greater.

###### **Modified Units:**

Except for CO, BACT is required for each pollutant with an AIPE of greater than 2.0 pounds per day. For CO, BACT is required if the AIPE of CO is greater than 2.0 pounds per day and the SSPE2 of CO is 200,000 pounds or greater.

###### **Major Modifications:**

BACT is required for the pollutants for which an SB-288 or a Federal Major Modification is triggered.

*As shown in section VII.G of this document, this document, this permitting action is not an SB-288 or a Federal Major Modification.*

###### **Applicability:**

###### **N-1276-13-4:**

This unit is modified and as shown in section VII.D.2 of this document, the AIPE of no pollutant will exceed 2.0 lb/day, therefore, BACT is not required.

###### **N-1276-19-0:**

This unit is new and as shown in section VII.C.1 of this document, its potential to emit will not exceed 2.0 lb/day. Therefore, BACT is not required.

###### **N-1276-20-0:**

This unit is new and as shown in section VII.C.1, the NO<sub>x</sub>, CO, VOC and PM<sub>10</sub> emissions will exceed 2.0 lb/day and as shown in section VII.E.2, the SSPE2 of CO will exceed 200,000 lb/yr. Therefore, BACT is required for NO<sub>x</sub>, CO, VOC and PM<sub>10</sub>.

## 2. BACT Analysis

### N-1276-13-4:

As shown above, BACT is not required for this unit, therefore, a BACT analysis is not required.

### N-1276-19-0:

As shown above, BACT is not required for this unit, therefore, a BACT analysis is not required.

### N-1276-20-0:

As shown above, BACT is required for the NO<sub>x</sub>, CO, VOC and PM<sub>10</sub> emissions from this unit and as shown in the Top-Down BACT analysis that is in Appendix D of this document, the BACT requirements are:

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

BACT was determined to be NO<sub>x</sub> emissions of 6.9 g/bhp-hr or less. The applicant is proposing this emission level, therefore, BACT will be satisfied.

#### **CO:**

As shown in the Top-Down BACT analysis, no after controls are required.

#### **VOC:**

As shown in the Top-Down BACT analysis, no after controls are required.

#### **SO<sub>x</sub>:**

BACT was determined to be very low sulfur fuel (15 ppmw sulfur or less). The applicant will be required to utilize fuel that meets this standard, therefore, BACT will be met.

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

BACT was determined to be PM<sub>10</sub> emissions of 0.4 g/bhp-hr.

## B. OFFSETS

### 1. Offset Applicability

Per Rule 2201, section 4.5.3, offsets are examined on a pollutant by pollutant basis and are triggered for any pollutant with a SSPE2 equal to or greater than the value on the following table:

Pollutant	SSPE2 (lb/yr)
NOx	20,000
CO (in CO attainment areas)	200,000
VOC	20,000
SOx	54,750
PM10	29,200

As shown in section VII.E.2 of this document, the SSPE2 of each pollutant is:

Pollutant	SSPE2 (lb/yr)	Offsets Triggered
NOx	33,847	Yes
CO	413,761	Yes
VOC	16,218	No
SOx	15,897	No
PM10	23,818	No

### 2. Quantity of Offsets Required

For pollutants with a pre-project SSPE (SSPE1) greater than the offset threshold levels of Rule 2201, section 4.5.3, offsets must be provided for all increases in Stationary Source emissions, calculated as the sum of differences between the post-project Potential to Emit and the Baseline Emissions of all new and modified emission units. Per section 4.6.2 of Rule 2201, the emergency engine proposed under application N-1267-20-0 is exempt from offsets. Therefore, the quantity of offsets calculation will be:

$$\text{Offset} = \text{PE}_2 \text{ (units in the SLC)} - \text{BE (units in the SLC)} - \text{PE (emergency engine)}$$

#### Offset Quantity ( NOx):

$$\text{PE}_2 \text{ (all units in the project)} = 33,847 \text{ lb/yr}$$

$$\text{BE} = 33,709 \text{ lb/yr}$$

$$\text{PE (emergency engine)} = 138 \text{ lb/yr}$$

$$\text{Offset}_{\text{NOx}} = 33,847 \text{ lb/yr} - 33,709 \text{ lb/yr} - 138 \text{ lb/yr} = 0 \text{ lb/yr}$$

### **Offset Quantity ( CO):**

PE2 (all units) = 413,761 lb/yr

BE = 413,590 lb/yr

PE (emergency engine) = 171 lb/yr

$\text{Offset}_{\text{CO}} = 413,761 \text{ lb/yr} - 413,590 \text{ lb/yr} - 171 \text{ lb/yr} = 0 \text{ lb/yr}$

## **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. Major Modifications
- c. New emission units with a PE > 100 lb/day of any one pollutant (IPE Notifications)
- d. Modifications with SSPE1 below an offset threshold and SSPE 2 above an offset threshold on a pollutant by pollutant basis (Existing Facility Offset Threshold Exceedence Notification)
- e. New stationary sources with SSPE2 exceeding offset thresholds (New Facility Offset Threshold Exceedence Notification)
- f. Any permitting action with a SSIPE exceeding 20,000 lb/yr for any one pollutant. (SSIPE Notice)

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

The facility is not new, therefore, a New Major Source Determination notice is not required.

#### **b. Major Modification Notice:**

As shown in section VII.G of this document, this permitting action is not a Major Modification. Therefore, a Major Modification notice is not required.

#### **c. PE Notification:**

A notification is required for each new emission unit with the potential to emit more than 100 pounds per day of any one affected pollutant.

As shown in section VII.C.1 of this document, the PE of each pollutant from the new units will be less than 100 pounds per day. Therefore, a notification is not required.

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

The SSPE of no pollutant will go from below to above an offset threshold. Therefore, a public notification is not required.

**e. New Facility Offset Threshold Exceedence 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.3 of this document, the SSIPE of each pollutant will be less than 20,000 pounds per year. An SSIPE notification is not required.

**2. Public Notice**

As shown above, a public notification is not required by Rule 2201.

**D. DAILY EMISSION LIMITS**

**N-1276-3-14 (156 MMBtu/hr boiler):**

NOx emissions shall not exceed 7 ppmvd @ 3% O2 (referenced as NO2) or 0.008 lb/MMBtu.

CO emissions shall not exceed 100 ppmvd @ 3% O2 or 0.074 lb/MMBtu.

VOC emissions shall not exceed 0.0055 lb/MMBtu (referenced as methane).

SOx emissions shall not exceed 0.00285 lb/MMBtu.

PM10 emissions shall not exceed 0.0024 lb/MMBtu.

**N-1276-19-0 (20,000 gallon per hour cooling tower):**

Drift eliminator drift rate shall not exceed 0.001%.

The PM10 emissions shall not exceed 1.2 pounds during any one day.

*Compliance with the PM10 emission limit shall be demonstrated as follows:  
PM10 lb/day = Circulating Water Recirculation rate (gal/day) x 8.34 lb/gal x  
Total Dissolved Solids Concentration in the blowdown water (ppm) x Design Drift  
Rate (%).*

*Compliance with PM10 emission limit shall be determined by blowdown water  
sample analysis by independent laboratory every calendar year.*

**N-1276-20-0 (208 bhp emergency fire pump):**

The NOx emissions shall not exceed 6.9 g/bhp-hr.  
The CO emissions shall not exceed 8.5 g/bhp-hr.  
The VOC emissions shall not exceed 1.0 g/bhp-hr.  
The PM10 emissions shall not exceed 0.4 g/bhp-hr.  
The fuel sulfur content shall not exceed 15 ppm by weight.

**E. Compliance Assurance**

**1. Source Testing**

**N-1276-3 (156 MMBtu/hr Boiler):**

The unit fires solely on natural gas and the District has source test data that shows such units are capable of complying with the proposed PM10 limit of 0.0024 lb/MMBtu. Therefore, PM10 testing is not required. Source testing requirements are specified on the current PTO and they will be placed on this ATC.

**N-1276-19-0 (20,000 GPM Cooling Tower):**

To ensure compliance with the PM10 emission limit of the ATC, annual testing to determine the total dissolved solids will be required.

**N-1276-20-0 (Emergency Fire Pump Powered by a Diesel Fired IC Engine):**

No District Rule or policy requires source testing of such units.

**2. Monitoring**

**N-1276-3 (156 MMBtu/hr Boiler):**

The monitoring required by District Rule 4320, 40 CFR Part 60, Subpart Db and 40 CFR Part 64 is specified on the current PTO. Those requirements will be placed on this ATC.

**N-1276-19-0 (20,000 GPM Cooling Tower):**

As they apply to this unit, no District rule or policy requires monitoring.

**N-1276-20-0 (Emergency Fire Pump Powered by a Diesel Fired IC Engine):**

District Rule 4702 requires the monitoring of operational characteristics of the engine. The necessary conditions, which are discussed in section VIII (Rule 4702 Compliance), will be included on the ATC.

### 3. Record Keeping

#### **N-1276-3 (156 MMBtu/hr Boiler):**

The tune-up and start-up duration records required by District Rule 4320 are included on the current PTO and will be included on the proposed ATC.

To make it possible to verify compliance with the daily fuel usage limit, records of the fuel usage will continue to be required.

#### **N-1276-19-0 (20,000 GPM Cooling Tower):**

As they apply to this unit, no District rule or policy requires record keeping.

#### **N-1276-20-0 (Emergency Fire Pump Powered by a Diesel Fired IC Engine):**

The records necessary to show compliance with the annual operating hour limitation will be required.

### 4. Reporting

#### **N-1276-3 (156 MMBtu/hr Boiler):**

The reporting required by 40 CFR Part 64 is specified on the current PTO. Those requirements will be placed on this ATC.

#### **N-1276-19-0 (20,000 GPM Cooling Tower):**

As they apply to this unit, no District rule or policy requires monitoring.

#### **N-1276-20-0 (Emergency Fire Pump Powered by a Diesel Fired IC Engine):**

As they apply to this unit, no District rule or policy requires monitoring.

## **Rule 2520 Federally Mandated Operating Permits**

This rule applies to Major Sources of air pollutants and to Major Air Toxics Sources. The facility is operating under a Title V permit and this permitting action is a Minor Modification to that permit. The applicant has proposed to receive the Authorities to Construct with Certificates of Conformity so the following conditions will be placed on each Authority to Construct.

*{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 NSR Rule] Y*

*{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] Y*

## **Rule 4001 New Source Performance Standards**

### **40 CFR Part 60 Subpart Db**

Of the units included in this permitting action, only the boiler operating under permit N-1276-3 is a subject unit. Compliance with this rule was address during the processing of the applications for project N-1094036 and since the modification will consist solely of lower the PM10 emission limit, a re-evaluation is not necessary.

### **40 CFR Part 60 Subpart IIII**

Per part 60.4200(a)(1)(ii), only the fire pumps listed in table 3 of this subpart are subject units. Per table 3, only 2009 and later model year engines of the proposed rating are subject to this subpart. The proposed unit is a model year 1999 unit and it is therefore not subject to this rule.

## **Rule 4002 National Emission Standards for Hazardous Air Pollutants**

### **40 CFR Part 63 Subpart ZZZZ**

Per section 63.6590(v)(3)(vii), the engine need not meet the requirements of this subpart because it is an existing commercial emergency stationary engine located at an area source of HAP emissions. The Major HAP determination is in Appendix E of this document.

## **Rule 4101 Visible Emissions**

As long as the equipment is properly maintained and operated, the visible emissions are not expected to exceed 20% opacity for a period or periods aggregating more than 3 minutes in any one hour. Compliance with the provisions of this rule is expected.

## Rule 4102 Nuisance

### A. California Health & Safety Code 41700 (Health Risk Analysis)

A risk management review was conducted by the Technical Services Division of the SJVAPCD. The acute and chronic hazard indices were determined to be zero and the cancer risk was determined to be 0.95 in one million. Such scores are indicative of emissions that will not cause a significant health risk to the public. Refer to Appendix C of this document for a copy of the risk management review summary.

### B. Toxics BACT (T-BACT)

As shown in the RMR summary that is in Appendix C of this document, Toxics BACT is not required.

## Rule 4201 Particulate Matter Concentration

### N-1276-3-14 (Natural Gas Fired Boiler):

This rule limits the particulate matter emission concentration to 0.1 gr/dscf of exhaust flow. The unit will fire solely on PUC quality natural gas, and due to low particulate matter emissions associated with the burning of this type of fuel, compliance is expected.

### N-1276-20-0 (Diesel Fired Emergency Fire Pump):

Particulate matter emissions from the engine will be less than or equal to the rule limit of 0.1 grain per cubic foot of gas at dry standard conditions as shown by the following:

$$0.4 \frac{g - PM_{10}}{bhp - hr} \times \frac{1 g - PM}{0.96 g - PM_{10}} \times \frac{1 bhp - hr}{2,542.5 Btu} \times \frac{10^6 Btu}{9,051 dscf} \times \frac{0.35 Btu_{out}}{1 Btu_{in}} \times \frac{15.43 grain}{g} = 0.098 \frac{grain - PM}{dscf}$$

Since 0.098 grain-PM/dscf is  $\leq$  to 0.1 grain per dscf, compliance with Rule 4201 is expected.

### Rule 4304 Equipment Tuning Procedure for Boilers, Steam Generators and Process Heaters

### Rule 4305 Boilers, Steam Generators and Process Heaters – Phase 2

### Rule 4306 Boilers, Steam Generators and Process Heaters – Phase 3

### Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators and Process heaters Greater Than 5.0 MMBtu/hr

Of the equipment in this permitting action, only unit N-1276-3 is subject to these rule. Compliance with these rules was addressed during the processing of the applications for project N-1094036. Since this permitting action is solely to lower the PM10 emission limit, a re-evaluation is not necessary.

## **Rule 4351 Boilers, Steam Generators and Process Heaters – Phase 1**

This rule applies to units located at Major Sources of NO<sub>x</sub> and with the change in the District's attainment status from Severe to Extreme, the facility is now a Major Source for NO<sub>x</sub> and this rule applies.

### **Section 5.0 - Emission Limits:**

Section 5.2.2 of this rule limits the NO<sub>x</sub> emissions to 30 ppmvd @ 3% O<sub>2</sub>. The NO<sub>x</sub> limit will continue to be 7 ppmvd @ 3% O<sub>2</sub> and no change is proposed. Therefore, compliance with this limit is expected.

Section 5.5 of this rule limits the CO emissions to 400 ppmvd @ 3% O<sub>2</sub>. The CO limit will continue to be 100 ppmvd @ 3% O<sub>2</sub> and no change is proposed. Therefore, compliance with this limit is expected.

### **Section 5.6 - Monitoring**

Section 5.6.2 of this rule requires that units equipped with NO<sub>x</sub> control technology install and maintain provisions to monitoring the operational characteristics of the NO<sub>x</sub> control system. The boiler is equipped with a flue gas recirculation system for NO<sub>x</sub> control and is currently required to monitor the FGR valve settings in accordance with District Policy SSP-1105. No changes to the FGR system monitoring requirement are proposed so continued compliance is expected.

### **Section 6.1 – Record Keeping**

Section 6.1.1 requires that the Higher Heating Value (HHV) of the fuel be determined annually. The permit currently requires such a determination and no changes are proposed. Therefore, continued compliance is expected.

### **Section 6.3 - Compliance Testing, Tune-Ups and Monitoring**

#### **Compliance Testing:**

Section 6.3.1 of this rule requires source testing to show compliance with the NO<sub>x</sub> and CO limits of this permit annually. Once two consecutive annual tests show compliance with the NO<sub>x</sub> and CO limits the frequency may be reduced to once every 36 months. The current PTO includes the necessary source testing conditions and no changes to those requirements are proposed. Therefore, continued compliance is expected.

#### **Tune - Ups:**

Section 6.3.1 also requires that tune-ups be performed in accordance with section 5.2.1. Section 5.2.1 requires that annual tune-ups be conducted in accordance with District Rule 4304. Such tune-ups are currently required and no changes to those requirements are proposed. Therefore, continued compliance is expected.

### **Monitoring:**

Section 6.3.1 also requires that monthly monitoring of the operational characteristics recommended by the boiler manufacturer be conducted. Such a condition will be added to the permit.

### **Section 6.4 - Emission Control Plan**

This section requires that the facility operator submit an Emission Control Plan (ECP) that identifies the type of control to be applied, the construction schedule or source test results that show the unit is already in compliance with this rule. The requires source test results have been submitted, therefore, compliance with the ECP requirements of this rule have been met.

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

Of the equipment in this permitting action, only unit N-1276-20 is subject to this rule. The engine is a standby unit as defined in section 3.22 and per section 4.2 and 4.2.1 is exempt from the rule (except for the administrative requirements of Section 6.1, 6.2.2 and 6.2.3).

### **Section 6.1 - Emission Control Plan**

This section requires that an Emission Control Plan (ECP) identifying how compliance with section 5.1 (Emission Limits) will be achieved. Since the unit is not subject to section 5.1, an ECP is not required.

### **Section 6.2.2 - Record Keeping**

The applicant is claiming exemption from this rule under section 4.2 and is therefore subject to the record keeping requirements of this section. The following condition will be placed on the ATC and the PTO:

*The following annual records shall be kept: (1) Total hours of operation, (2) type and quantity of fuel used, in gallons, (3) the purpose for operating the engine, (4) separate records of the hours of emergency and non-emergency operation.*

### **Section 6.2.3 - Record Keeping Duration**

This section requires that all records be retained for at least five years and that they be made available to the District upon request. Such a condition will be included on the ATC and the PTO.

## Rule 4702 Internal Combustion Engines

The engine is an Emergency Standby Engine as defined in section 3.15 and per section 4.2 is exempt from the rule (except for Sections 5.9 and 6.2.3). To ensure that the unit continues to qualify for this exemption, the following condition will be placed on the ATC and on the PTO.

*{3816} This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 4102 and 4702]*

### Sections 4.2.1 and 4.2.2 – Elapsed Time Meter

These sections require that the unit be equipped with a nonresettable elapsed time meter and that it be properly maintained. The engine is equipped with such a meter and the ATC and PTO will require that it be properly maintained, therefore, compliance with this requirement is expected.

### Section 5.9 - Monitoring Requirements

Section 5.9.1.3, requires compliance with sections 5.9.2 through 5.9.5

Section 5.9.2 requires the operator to properly operate and maintain the engine as recommended by the engine manufacturer or emission control system supplier. To ensure compliance with this requirement, the following condition will be included on the ATC and on the PTO:

*{4261} 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]*

Section 5.9.3 requires the monitoring of the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier. To ensure compliance with this requirement, the following condition will be included on the ATC and on the PTO.

*{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]*

Section 5.9.4 requires the use of a properly maintained nonresettable elapsed time meter. To ensure compliance with this requirement, the following condition will be included on the ATC and on the PTO:

*{4257} This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative.*

Section 5.9.5 applies to agricultural engines and is therefore not applicable.

#### Section 6.2.3 - Record Keeping

The operator is claiming exemption under section 4.2 and is therefore subject to the record keeping requirements of this section. To ensure compliance, the following conditions will be included on the ATC and on the PTO.

*The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the type of fuel used, the date and number of hours of all testing and maintenance operations, and the purpose of the operation (for example: load testing, weekly testing, etc.). 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]*

*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]*

## Rule 4801 Sulfur Compounds

### N-1276-3-14 (Natural Gas Fired Boiler):

This rule limits the sulfur compound emissions to 2000 ppmv. The unit will fire solely on PUC quality natural gas. The low sulfur content of the fuel will ensure compliance with this rule.

### N-1276-20-0 (Diesel Fired Emergency Fire Pump)

Using the ideal gas equation, the sulfur compound emissions are calculated as follows:

$$\text{Volume SO}_2 = (n \times R \times T) \div P$$

n = moles SO<sub>2</sub>

T (standard temperature) = 60 °F or 520 °R

$$R (\text{universal gas constant}) = \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot \text{°R}}$$

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

Since 1.0 ppmv is ≤ 2,000 ppmv, this engine is expected to comply with Rule 4801. Therefore, the following condition will be listed on the ATC to ensure compliance:

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

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

### Section 93115.5 (Fuel Requirements)

This section specifies the types of fuels that may be burned. The applicant is proposing the use of CARB Diesel Fuel, which is an approved fuel. Therefore, compliance with the fuel standard is expected.

### Section 93115.6 (Emission Standards)

The proposed unit is an In-Use unit as defined in this rule and it is an emergency fire pump. Per section 93115.3(n), this unit is exempt from the emission limits of section 93115.6(b)(3) provided that it will operate only the number of hours necessary to comply with the testing requirements of National Fire Protection Association (NFPA) 25 "Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems", 2002 Edition. The permit will include a 50 hr/yr testing and maintenance limit, therefore, the engine is exempt from the emission limits of this rule.

## **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; and
- 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.

### **Units N-1276-3-14 and N-1286-19-0 (Boiler and Cooling Tower):**

#### **Greenhouse Gas (GHG) Significance Determination**

It is determined that no other agency has or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project.

The District's engineering evaluation (this document) demonstrates that these units would not result in an increase in project specific greenhouse gas emissions. The District therefore concludes that these units 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)).

### **Unit N-1276-20-0 (Emergency Fire Pump Powered by a Diesel Fired IC Engine):**

The District performed an Engineering Evaluation (this document) for the proposed project and determined that this portion of the project qualifies for ministerial approval under the District's Guideline for Expedited Application Review (GEAR).

Section 21080 of the Public Resources Code exempts from the application of CEQA those projects over which a public agency exercises only ministerial approval. Therefore, the District finds that this portion of the project is exempt from the provisions of CEQA.

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

The equipment will not be located within 1,000 feet of a K-12 school, therefore, a school notice is not required.

**IX. Recommendation**

Issue Authorities-to-Construct with the conditions on the attached draft Authorities-to-Construct.

**X. Billing Information**

**Premodification:**

Permit #	Description	Fee Schedule
N-1276-3-12	156 MMBtu/hr	3020-2-H
N-1276-19-0	N/A – New Unit	
N-1276-20-0	N/A – New Unit	

**Post modification:**

Permit #	Description	Fee Schedule
N-1276-3-14	156 MMBtu/hr	3020-2-H
N-1276-19-0	600 hp (4 motors @ 150 hp each)	3020-1-F
N-1276-20-0	182 bhp	3020-10-B

**Appendices**

- Appendix A: Draft ATC
- Appendix B: Current PTO
- Appendix C: RMR Summary
- Appendix D: BACT Guideline and BACT Analysis
- Appendix E: Major Hazardous Air Pollutant Source Determination
- Appendix F: TV-009 Form

Appendix A  
Draft ATC

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

**PERMIT NO:** N-1276-3-14

**LEGAL OWNER OR OPERATOR:** INGOMAR PACKING COMPANY  
**MAILING ADDRESS:** P O BOX 1448  
LOS BANOS, CA 93635

**LOCATION:** 9950 S INGOMAR GRADE  
LOS BANOS, CA 93635

**EQUIPMENT DESCRIPTION:**  
156 MMBTU/HR NEBRASKA MODEL N25-T-84 BOILER WITH A TODD RMB ULTRA-LOW NOX BURNER AND AN INDUCED FLUE GAS RECIRCULATION SYSTEM. MODIFICATION TO REDUCE PM10 LIMIT TO 0.0024 LB/MMBTU.

**CONDITIONS**

1. Authorities to Construct N-1276-3-14, N-1276-19-0 and N-1276-20-0 shall be implemented simultaneously. [District Rule 2201]
2. {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
3. {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
4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. {4383} No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
6. 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] Federally Enforceable Through Title V Permit

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.

Sayed Sadredin, Executive Director, APCD

**DAVID WARNER**, Director of Permit Services  
N-1276-3-14 : Aug 20 2012 11:22AM - SCHONHOM : Joint Inspection NOT Required

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

7. {1898} 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]
8. This boiler shall be equipped with a totalizing mass or volumetric fuel flow meter that measures the quantity of natural gas consumed per day (in cubic feet). The meter shall be maintained in proper operating condition at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall be fired only on PUC-quality natural gas. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
10. The facility-wide fuel usage shall not exceed 19,600 MMBtu in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The fuel usage of this unit shall not exceed 1,063,560 MMBtu during any rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
12. NO<sub>x</sub> emissions shall not exceed 7 ppmvd @ 3% O<sub>2</sub> (referenced as NO<sub>2</sub>) or 0.008 lb/MMBtu. [District Rules 2201, 4306 and 4320] Federally Enforceable Through Title V Permit
13. CO emissions shall not exceed 100 ppmvd @ 3% O<sub>2</sub> or 0.074 lb/MMBtu. [District Rules 2201, 4306 and 4320] Federally Enforceable Through Title V Permit
14. VOC emissions shall not exceed 0.0055 lb/MMBtu (referenced as methane). [District Rule 2201] Federally Enforceable Through Title V Permit
15. SO<sub>x</sub> emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
16. PM<sub>10</sub> emissions shall not exceed 0.0024 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Source testing to determine compliance with the NO<sub>x</sub> and CO emission limits of this permit shall be conducted at least once every twelve months. After demonstrating compliance on two consecutive annual source tests, the unit shall be tested not less than once every thirty-six months. If the result of a 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
18. 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] Federally Enforceable Through Title V Permit
19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
20. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
23. Source testing to measure NO<sub>x</sub> emissions shall be conducted using EPA Method 7E, EPA Method 19, or CARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
24. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

25. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
26. Stack gas velocities shall be determined using EPA Method 2. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
27. The flue gas recirculation valve(s) setting shall be monitored at least on a weekly basis. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last week. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
28. The acceptable settings for the flue gas recirculation valve(s) shall be established by source testing this unit or other representative units per Rule 4305 and as approved by the District. The normal range/level shall be that for which compliance with applicable NO<sub>x</sub> and CO emissions rates have been demonstrated through source testing at a similar firing rate. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
29. Normal range or level for the flue gas recirculation valve(s) settings shall be re-established during each source test required by this permit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
30. If the flue gas recirculation valve(s) setting is less than the normal range/level, the permittee shall return the flue gas recirculation valve(s) setting to the normal range/level as soon as possible, but no longer than 1 hour of operation after detection. If the flue gas recirculation valve(s) setting is not returned to the normal range/level within 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour, and conduct a source test within 60 days of the first exceedance, to demonstrate compliance with the applicable emission limits at the new flue gas recirculation valve(s) setting. A District-approved portable analyzer may be used in lieu of a source test to demonstrate compliance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. 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 the performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
31. The permittee shall maintain records of the date and time of flue gas recirculation valve(s) settings, the observed setting, and the firing rate at the time of the flue gas recirculation valve(s) setting measurements. The records must also include a description of any corrective action taken to maintain the flue gas recirculation valve(s) setting within the acceptable range. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
32. During the 36-month source-testing interval, the owner/operator shall have unit tuned at least twice during each calendar year it operates. The tune-ups shall be four to eight months apart and shall be conducted by a technician that is qualified, to the satisfaction of the APCO. All tune-ups shall be conducted in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rules 4306 and 4320] Federally Enforceable Through Title V Permit
33. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rules 4306 and 4320] Federally Enforceable Through Title V Permit
34. The records necessary to show the required tune-ups were conducted shall be kept. [District Rule 4320] Federally Enforceable Through Title V Permit
35. A daily record of the duration of each start-up and shutdown period shall be kept. [District Rule 4306 and 4320] Federally Enforceable Through Title V Permit
36. A record of the daily facility-wide fuel usage, in Btu, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
37. A record of the annual fuel usage of this unit, on a rolling 12-month basis, shall be kept. The record shall be in MMBtu and shall be updated at least once during each calendar month that the unit operates. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

38. Operator shall monitor and record for each unit the HHV and cumulative annual use of natural gas fuel. [District Rules 2201, 2520, 9.3.2 and 4351, 6.1.1] Federally Enforceable Through Title V Permit
39. The HHV of the fuel shall be certified by a third party fuel supplier or shall be determined in accordance with District Rule 4351. [District Rule 2520, 9.3.2 and 4351, 6.2.1] Federally Enforceable Through Title V Permit
40. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit
41. All records shall be maintained and retained on-site for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
42. This unit is subject to the requirements of 40 CFR Part 60, Subpart Db: Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. [District Rule 4001] Federally Enforceable Through Title V Permit
43. The permittee shall comply with the emission monitoring requirements for nitrogen oxides given in 40 CFR Part 60.48b. [District Rule 4001] Federally Enforceable Through Title V Permit
44. The permittee shall comply with the reporting requirements of 40 CFR Part 60.48b. [District Rule 4001] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the record keeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality improvement plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

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San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

**PERMIT NO:** N-1276-19-0

**LEGAL OWNER OR OPERATOR:** INGOMAR PACKING COMPANY  
**MAILING ADDRESS:** P O BOX 1448  
LOS BANOS, CA 93635

**LOCATION:** 9950 S INGOMAR GRADE  
LOS BANOS, CA 93635

**EQUIPMENT DESCRIPTION:**  
20,000 GPM COOLING TOWER SERVED BY A DRIFT ELIMINATOR

**CONDITIONS**

1. Authorities to Construct N-1276-3-14, N-1276-19-0 and N-1276-20-0 shall be implemented simultaneously. [District Rule 2201]
2. {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
3. {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
4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. {4383} No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
6. 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] Federally Enforceable Through Title V Permit

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

**DAVID WARNER**, Director of Permit Services

N-1276-19-0; Aug 20 2012 11:22AM - SCHONHOM : Joint Inspection NOT Required

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7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. No hexavalent chromium containing compounds shall be added to cooling tower circulating water. [District Rule 7012] Federally Enforceable Through Title V Permit
9. Drift eliminator drift rate shall not exceed 0.001%. [District Rule 2201] Federally Enforceable Through Title V Permit
10. PM10 emission rate from the cooling tower shall not exceed 1.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Compliance with the PM10 emission limit shall be demonstrated as follows:  $PM10 \text{ lb/day} = \text{Circulating Water Recirculation rate (gal/day)} \times 8.34 \text{ lb/gal} \times \text{Total Dissolved Solids Concentration in the blowdown water (ppm)} \times \text{Design Drift Rate (\%)}$ . [District Rule 2201] Federally Enforceable Through Title V Permit
12. Compliance with the PM10 emission limit shall be determined by blowdown water sample analysis by independent laboratory at once each calendar year. [District Rule 1081] Federally Enforceable Through Title V Permit
13. Records of the annual water sample analyses shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All records shall be retained on site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

**PERMIT NO:** N-1276-20-0

**LEGAL OWNER OR OPERATOR:** INGOMAR PACKING COMPANY  
**MAILING ADDRESS:** P O BOX 1448  
LOS BANOS, CA 93635

**LOCATION:** 9950 S INGOMAR GRADE  
LOS BANOS, CA 93635

**EQUIPMENT DESCRIPTION:**  
182 BHP CUMMINS MODEL 6 BTA 5.9 F1 DIESEL FIRED (TIER 1 CERTIFIED) EMERGENCY ENGINE POWERING A FIRE PUMP.

**CONDITIONS**

1. Authorities to Construct N-1276-3-14, N-1276-19-0 and N-1276-20-0 shall be implemented simultaneously. [District Rule 2201]
2. {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
3. {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
4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. {4383} No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
6. {1898} 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]

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, APCD

**DAVID WARNER**, Director of Permit Services

N-1276-20-0: Aug 20 2012 11:22AM - SCHOINHOM : Joint Inspection NOT Required

7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rules 4701 and 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
9. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed any of the following limits: 6.9 g-NOx/bhp-hr, 8.5 g-CO/bhp-hr, or 1.0 g-VOC/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this IC engine shall not exceed 0.4 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
12. 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] Federally Enforceable Through Title V Permit
13. 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] Federally Enforceable Through Title V Permit
14. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
15. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the type of fuel used, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, 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 Rule 4702] Federally Enforceable Through Title V Permit
16. All records shall be maintained and retained on-site for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

DRAFT

Appendix B  
Current PTO

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-1276-3-12

EXPIRATION DATE: 09/30/2010

## EQUIPMENT DESCRIPTION:

156 MMBTU/HR NEBRASKA MODEL N25-T-84 BOILER WITH A TODD RMB ULTRA-LOW NOX BURNER AND AN INDUCED FLUE GAS RECIRCULATION SYSTEM

## PERMIT UNIT REQUIREMENTS

---

1. 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] Federally Enforceable Through Title V Permit
2. 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] Federally Enforceable Through Title V Permit
3. 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]
4. This boiler shall be equipped with a totalizing mass or volumetric fuel flow meter that measures the quantity of natural gas consumed per day (in cubic feet). The meter shall be maintained in proper operating condition at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This unit shall be fired only on PUC-quality natural gas. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
6. The facility-wide fuel usage shall not exceed 19,600 MMBtu in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. NOx emissions shall not exceed 7 ppmvd @ 3% O2 (referenced as NO2) or 0.008 lb/MMBtu. [District Rules 2201, 4306 and 4320] Federally Enforceable Through Title V Permit
8. CO emissions shall not exceed 100 ppmvd @ 3% O2 or 0.074 lb/MMBtu. [District Rules 2201, 4306 and 4320] Federally Enforceable Through Title V Permit
9. VOC emissions shall not exceed 0.0055 lb/MMBtu (referenced as methane). [District Rule 2201] Federally Enforceable Through Title V Permit
10. SOx emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
11. PM10 emissions shall not exceed 0.0076 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Source testing to determine compliance with the NOx and CO emission limits of this permit shall be conducted at least once every twelve months. After demonstrating compliance on two consecutive annual source tests, the unit shall be tested not less than once every thirty-six months. If the result of a 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve months. [District Rules 4305, 4306 and 4320]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

13. 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] Federally Enforceable Through Title V Permit
14. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
15. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
18. Source testing to measure NOx emissions shall be conducted using EPA Method 7E, EPA Method 19, or CARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
19. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
20. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
21. Stack gas velocities shall be determined using EPA Method 2. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
22. The flue gas recirculation valve(s) setting shall be monitored at least on a weekly basis. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last week. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
23. The acceptable settings for the flue gas recirculation valve(s) shall be established by source testing this unit or other representative units per Rule 4305 and as approved by the District. The normal range/level shall be that for which compliance with applicable NOx and CO emissions rates have been demonstrated through source testing at a similar firing rate. [District Rules 4305, 4306 and 4320]
24. Normal range or level for the flue gas recirculation valve(s) settings shall be re-established during each source test required by this permit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
25. If the flue gas recirculation valve(s) setting is less than the normal range/level, the permittee shall return the flue gas recirculation valve(s) setting to the normal range/level as soon as possible, but no longer than 1 hour of operation after detection. If the flue gas recirculation valve(s) setting is not returned to the normal range/level within 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour, and conduct a source test within 60 days of the first exceedance, to demonstrate compliance with the applicable emission limits at the new flue gas recirculation valve(s) setting. A District-approved portable analyzer may be used in lieu of a source test to demonstrate compliance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. 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 the performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

26. The permittee shall maintain records of the date and time of flue gas recirculation valve(s) settings, the observed setting, and the firing rate at the time of the flue gas recirculation valve(s) setting measurements. The records must also include a description of any corrective action taken to maintain the flue gas recirculation valve(s) setting within the acceptable range. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
27. During the 36-month source-testing interval, the owner/operator shall have unit tuned at least twice during each calendar year it operates. The tune-ups shall be four to eight months apart and shall be conducted by a technician that is qualified, to the satisfaction of the APCO. All tune-ups shall be conducted in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rules 4306 and 4320]
28. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rules 4306 and 4320] Federally Enforceable Through Title V Permit
29. The records necessary to show the required tune-ups were conducted shall be kept. [District Rule 4320]
30. A daily record of the duration of each start-up and shutdown period shall be kept. [District Rule 4306 and 4320] Federally Enforceable Through Title V Permit
31. A record of the daily facility-wide fuel usage, in Btu, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
32. Operator shall monitor and record for each unit the HHV and cumulative annual use of natural gas fuel. [District Rules 2201, 2520, 9.3.2 and 4351, 6.1.1] Federally Enforceable Through Title V Permit
33. The HHV of the fuel shall be certified by a third party fuel supplier or shall be determined in accordance with District Rule 4351. [District Rule 2520, 9.3.2 and 4351, 6.2.1] Federally Enforceable Through Title V Permit
34. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320]
35. All records shall be maintained and retained on-site for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
36. This unit is subject to the requirements of 40 CFR Part 60, Subpart Db: Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. [District Rule 4001] Federally Enforceable Through Title V Permit
37. The permittee shall comply with the emission monitoring requirements for nitrogen oxides given in 40 CFR Part 60.48b. [District Rule 4001] Federally Enforceable Through Title V Permit
38. The permittee shall comply with the reporting requirements of 40 CFR Part 60.48b. [District Rule 4001] Federally Enforceable Through Title V Permit
39. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit
40. The permittee shall comply with the record keeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
41. If the District or EPA determine that a Quality improvement plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Appendix C  
RMR Summary

# San Joaquin Valley Air Pollution Control District Risk Management Review

To: Mark Schonhoff – Permit Services  
 From: Cheryl Lawler - Technical Services  
 Date: August 2, 2012  
 Facility Name: Ingomar Packing  
 Location: 9950 S. Ingomar Grade, Los Banos  
 Application #(s): N-1276-3-14, 19-0, 20-0  
 Project #: N-1113286

## A. RMR SUMMARY

RMR Summary					
Categories	Natural Gas Boiler Unit 3-14)	Cooling Tower (Unit 19-0)	Emergency Diesel ICE (Unit 20-0)	Project Totals	Facility Totals
Prioritization Score	0.00 <sup>1</sup>	0.00 <sup>1</sup>	N/A <sup>2</sup>	>1	>1
Acute Hazard Index	N/A	N/A	N/A <sup>3</sup>	0.00	0.18
Chronic Hazard Index	N/A	N/A	N/A <sup>3</sup>	0.00	0.00
Maximum Individual Cancer Risk	N/A	N/A	9.5E-07	9.5E-07	1.35E-06
T-BACT Required?	No	No	No		
Special Permit Conditions?	No	No	Yes		

- 1 A prioritization was not performed after determining there is a decrease in emissions, and no Hazardous Air Pollutants (HAPs) are associated with these units. No further analysis was required.
- 2 Prioritization for this unit was not conducted since it has been determined that all diesel-fired IC engines will result in a prioritization score greater than 1.0.
- 3 Acute and Chronic Hazard Indices were not calculated since there is no risk factor, or the risk factor is so low that the risk has been determined to be insignificant for this type of unit.

### Proposed Permit Conditions

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

#### Unit 20-0

1. Modified {1901} The PM10 emissions rate shall not exceed 0.4 g/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rule 2201]
2. {1898} 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
3. {3488} This engine shall be operated only for maintenance, testing, required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of

Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed **50** hours per calendar year. [District Rule 4702 and 17 CCR 93115] N

## B. RMR REPORT

### I. Project Description

Technical Services received a request on July 18, 2012, to perform a Risk Management Review for an existing natural gas boiler, a new cooling tower, and a 182 bhp emergency diesel IC engine powering a fire pump.

### II. Analysis

For the existing natural gas boiler (Unit 3-14), no analysis was required, because the only modification to this unit is to reduce the PM10 limit. No other changes are proposed.

For the cooling tower (Unit 19-0), after reviewing the information provided in the Risk Management Review request along with the MSDS sheet for the biocide to be used in the cooling tower, Technical Services determined that there are no HAPs associated with this unit. Therefore, no further analysis or prioritization was required for this unit.

For the Diesel ICE (Unit 20-0), Technical Services performed a screening level health risk assessment using the District's Diesel Exhaust Risk Screening spreadsheet.

The following parameters were used for the review:

Analysis Parameters – Diesel ICE						
Unit #	bhp-hr	PM <sub>10</sub> g/hp-hr	Receptor (m)	Quad	Hours/Year	Load%
20-0	182	0.4	244	2	50	100
Location Type			Rural	Receptor Type		Residence

### III. Conclusions

#### Unit 3-14

The proposed unit will not contribute to the facility's risk. In accordance with the District's Risk Management Policy, the unit is approved **without** Toxic Best Available Control Technology (T-BACT).

#### Unit 19-0

The proposed unit will not contribute to the facility's risk. In accordance with the District's Risk Management Policy, the unit is approved **without** Toxic Best Available Control Technology (T-BACT).

#### Unit 20-0

The individual cancer risk associated with the operation of the proposed emergency diesel IC engine is **9.5E-07** which is less than the 1 in a million threshold. In accordance with the District's Risk Management Policy, the unit is approved as proposed **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 the 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.

### IV. Attachments

- A. RMR Request from the Project Engineer
- B. Additional Information from the Applicant/Project Engineer
- C. DICE Screening Risk Spreadsheet
- D. Facility Summary

Appendix D  
Top-Down BACT Analysis

[Per » B A C T » Bact Guideline.asp?category Level1=3&category Level2=1&category Level3=4&last Update=6 » 30 :](#)

[Back](#)

**Best Available Control Technology (BACT ) Guideline 3.1.4  
Last Update: 6/30/2001**

**Emergency Diesel I.C. Engine Driving a Fire Pump**

Pollutant	Achieved in Practice or in the SIP	Technologically Feasible	Alternate Basic Equipment
CO		Oxidation Catalyst	
NOx	Certified NOx emissions of 6.9 g/bhp-hr or less		
PM10	0.1 grams/bhp-hr (if TBACT is triggered) (corrected 7/16/01) 0.4 grams/bhp-hr (if TBACT is not triggered)		
SOx	Low-sulfur diesel fuel (500 ppmw sulfur or less) or Very Low-sulfur diesel fuel (15 ppmw sulfur or less), where available.		
VOC	Positive crankcase ventilation [unless it voids the Underwriters Laboratories (UL) certification]	Catalytic Oxidation	

*1. Any engine model included in the ARB or EPA diesel engine certification lists and identified as having a PM10 emission rate of 0.149 grams/bhp-hr or less, based on ISO 8178 test procedure, shall be deemed to meet the 0.1 grams/bhp-hr requirement. 2. A site-specific Health Risk Analysis is used to determine if TBACT is triggered. (Clarification added 05/07/01)*

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. For background information, see Permit Specific BACT Determinations on [Details Page](#).**

## **Top-Down BACT Analysis (N-1276-20-0):**

As shown in section VIII (Rule 2201 Compliance), BACT is required for the NO<sub>x</sub>, CO, VOC and PM<sub>10</sub> emissions from the emergency fire pump (N-1276-20-0). District BACT guideline 3.1.4 applies to the proposed engine, therefore, information from that guideline will be used without further analysis.

### **BACT analysis for NO<sub>x</sub>:**

#### Step 1 - Identify All Possible Control Technologies

Certified NO<sub>x</sub> emissions of 6.9 g/bhp-hr

#### Step 2 - Eliminate Technologically Infeasible Options

The above listed emission level is technologically feasible.

#### Step 3 - Rank Remaining Control Technologies by Control effectiveness

1. Certified NO<sub>x</sub> emissions of 6.9 g/bhp-hr

#### Step 4 - Cost Effectiveness Analysis:

This level of NO<sub>x</sub> control is categorized as Achieved-in-Practice, therefore, it is required regardless of cost. A cost effectiveness analysis is not required.

#### Step 5 - Select BACT

BACT for NO<sub>x</sub> will be a NO<sub>x</sub> emission level of 6.9 g/bhp-hr.

**BACT analysis for CO:**

CO is generated by partial combustion of the fuel.

**Step 1 - Identify All Possible Control Technologies**

1. Oxidation Catalyst

**Step 2 - Eliminate Technologically Infeasible Options:**

The above listed control technology is technologically feasible.

**Step 3 - Rank Remaining Control Technologies by Control effectiveness**

1. Oxidation Catalyst

#### Step 4 - Cost Effectiveness Analysis:

BACT is also triggered for VOC and an oxidation catalyst is listed as a Technologically Feasible control for that pollutant also. Therefore, in accordance with District policy APR-1305, a multi-pollutant cost effectiveness threshold (MCET) calculation is required.

From an EPA document titled Technical Highlights (June 2003), it is known that approximately 50% VOC control and 40% CO control is achievable with an oxidation catalyst. Therefore, the reductions that could be provided are:

CO Reductions:  $(0.40)(171 \text{ lb/yr}) = 68 \text{ lb/yr}$  (0.034 tons/yr)  
VOC Reductions:  $(0.50)(20 \text{ lb/yr}) = 10 \text{ lb/yr}$  (0.005 tons/yr)

MCET =  $(0.034 \text{ tons CO/yr})(\$300/\text{ton CO})$   
+  $(0.005 \text{ ton VOC/yr})(\$17,500/\text{ton VOC}) = \$97.70 \text{ per year}$

Per the same document, the cost of an oxidation catalyst would be approximately \$2,000 (2003 dollars). The annualized cost associated with the purchase of such a device is:

$A = [P(i)(1+i)^n] / [(1+i)^n - 1]$  where:

- A: Equivalent annual capital cost of the control equipment
- P: Present value of the control equipment, including installation
- i: Interest rate (District policy is to use 10%)
- n: Equipment life (10 years – District Policy APR-1305)

$A = [\$2,000(0.1)(1+0.1)^5] / [(1+0.1)^5 - 1] = \$325/\text{yr}$

Based on the purchase cost alone, the cost of VOC and CO control utilizing an oxidizer is in excess of the cost threshold calculated above. Therefore, an oxidizer is not cost effective and is being removed from consideration at this time.

#### Step 5 - Select BACT

No CO control equipment is required.

## **BACT analysis for VOC:**

VOC emissions are generated by the burning of fuel.

### Step 1 - Identify All Possible Control Technologies

1. Oxidation Catalyst
2. Positive Crankcase Ventilation (not required if it would void the Underwriters Laboratories (UL) certification)

### Step 2 - Eliminate Technologically Infeasible Options:

The use of a positive crankcase ventilation system would void the UL certification, therefore, this control option is being removed from consideration at this time.

### Step 3 - Rank Remaining Control Technologies by Control effectiveness

1. Oxidation Catalyst

### Step 4 - Cost Effectiveness Analysis:

As shown in the top-down BACT analysis for CO, an oxidation catalyst is not cost effective per the District BACT policy. Therefore, an oxidation catalyst is being removed from consideration at this time.

### Step 5 - Select BACT

No VOC control equipment is required.

## **BACT analysis for SOx:**

VOC emissions are generated by the burning of fuel.

### Step 1 - Identify All Possible Control Technologies

1. Very Low Sulfur Fuel (15 ppmw sulfur or less)

### Step 2 - Eliminate Technologically Infeasible Options:

The above listed control technology is technologically feasible.

### Step 3 - Rank Remaining Control Technologies by Control effectiveness

1. Very Low Sulfur Fuel (15 ppmw sulfur or less)

### Step 4 - Cost Effectiveness Analysis:

The above listed item is achieved in practice and is required regardless of cost. A cost effectiveness analysis is not required.

### Step 5 - Select BACT

BACT for SOx will be fuel with a sulfur content of 15 ppmw or less.

### **BACT analysis for PM10:**

VOC emissions are generated by the burning of fuel.

#### Step 1 - Identify All Possible Control Technologies

1. 0.1 g/bhp-hr if Toxics BACT is required
2. 0.4 g/bhp-hr if Toxics BACT is not required

#### Step 2 - Eliminate Technologically Infeasible Options:

The above listed control technologies are technologically feasible.

#### Step 3 - Rank Remaining Control Technologies by Control effectiveness

As shown on the Risk Management Review summary that is in appendix C of this document, the unit is not subject to Toxics BACT, therefore, only the following option remains under consideration:

1. 0.4 g/bhp-hr if Toxics BACT is not required

#### Step 4 - Cost Effectiveness Analysis:

The above listed item is achieved in practice and is required regardless of cost. A cost effectiveness analysis is not required.

#### Step 5 - Select BACT

BACT will be PM10 emissions of 0.4 g/bhp-hr or less.

Appendix E  
Major HAP Source Determination

To determine whether the facility is a Major Air Toxics Source, the facility-wide hazardous air pollutant (HAP) emissions will be compared to the Major Air Toxics Source thresholds. Those thresholds are 10 tons/yr of any single HAP or combined HAP emissions of 25 tons/yr. To determine the facility-wide potential to emit of HAPS, the facility-wide natural gas usage limit will be applied to the appropriate emission factor. The emissions factors are from the California Air Toxics Emission Factors (CATEF) database.

**Natural Gas Fired Boilers (Units N-1276-1, N-1276-2, N-1276-3, N-1276-8, N-1276-9, N-1276-15 and N-1276-18):**

Facility-wide Fuel Usage: 19,600 MMBtu/day (Applies only to the boilers)  
 Natural gas heat content: 1,000 Btu/scf

$$\text{Annual Fuel Usage} = (19,600 \text{ MMBtu/day})(365 \text{ days/yr})(\text{scf}/1000 \text{ Btu}) = 7,154 \text{ MMscf/yr}$$

Compound	Emission Factor (lb/MMscf)	Potential to Emit (lb/yr)
Acetaldehyde	0.00887	63.5
Benzene	0.00431	30.8
Formaldehyde	0.0221	158.1
Toluene	0.0034	24.3
Total	---	276.7

**Abrasive Blasting (N-1276-6):**

The abrasive blasting operation would be expected to have only crystalline silica emissions. This pollutant is not on the list of EPA HAPS, therefore it will not contribute to the HAP emission total.

**Cooling Tower (N-1276-19):**

The emissions will consist solely of water that contains dissolved solids and a biocide (hydrobromous acid) the CATEF database does not list cooling towers as a source of HAP emissions, therefore, only the biocide will be addressed in this determination. This pollutant is not on the list of EPA HAPS, therefore it will not contribute to the HAP emission total.

**Diesel Fired Fire Pump (N-1276-20):**

Rating: 182 bhp  
 Brake Specific Fuel Consumption: 7,000 Btu/bhp-hr  
 Heat Content of Diesel: 137,000 Btu/gal  
 Operating Limit: 50 hr/yr

Fuel Use = (182 bhp)(7,000 Btu/bhp-hr)(gal/137,000 Btu)(50 hr/yr) = 465 gallons

Compound	Emission Factor (lb/10 <sup>3</sup> gal)	Potential to Emit (lb/yr)
Acenaphthene	0.00132	0.000614
Acetaldehyde	0.00646	0.00300
Acrolein	0.00179	0.000832
Anthracene	0.000289	0.000134
Benzene	0.104	0.0484
Benzo(a)anthracene	0.0000969	0.0000451
Benzo(b)fluoranthene	0.00672	0.00312
Benzo(b+k)fluoranthene	0.00000298	0.00000139
Benzo(g,h,i)perylene	0.00672	0.00312
Benzo(k)fluoranthene	0.00672	0.00312
Benzo(a)pyrene	0.0000477	0.0000222
Chrysene	0.00672	0.00312
Dibenz(a,h)anthracene	0.000280	0.000130
Ethylbenzene	0.00803	0.00373
Fluoranthene	0.000330	0.000153
Fluorene	0.00124	0.000577
Formaldehyde	0.176	0.0818
Hexane	0.00147	0.000684
Indeno(1,2,3-cd)pyrene	0.000280	0.000130
Napthalene	0.0319	0.0148
Phenanthrene	0.00648	0.00301
Propylene	0.345	0.160
Pyrene	0.000280	0.000130
Toluene	0.111	0.0516
Xylene (total)	0.0206	0.00958
Total	---	0.392

**Major HAP Source Determination:**

As can be seen, the potential to emit of no single HAP will equal or exceed 10 tons/yr and the combined HAP emissions will not equal or exceed 25 tons/yr. Therefore, the facility is not a major source of HAP emissions.

Appendix F  
TV-009 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 AMENDMENT  
 MINOR PERMIT MODIFICATION

COMPANY NAME: <u>INGOMAR PACING COMPANY, LLC</u>	FACILITY ID: <u>N-1276</u>
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: <u>GREG PRUETT</u>	
3. Agent to the Owner: <u>TIM DURHAM</u>	

**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:

*Tim Durham*  
Signature of Responsible Official

8/17/12  
Date

Tim Durham  
Name of Responsible Official (please print)

DIRECTOR OF OPERATIONS  
Title of Responsible Official (please print)