San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

JUN 13 2019

Mr. Paul Hopwood
Liberty Packing Company - The Morning Star Company
12045 S Ingomar Grade Road
Los Banos, CA 93635

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
Facility Number: N-1399
Project Number: N-1191683

Dear Mr. Hopwood:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The installation of two 1,490 bhp diesel-fired emergency engines each powering an electrical generator.

After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authority to Construct with a Certificate of Conformity. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice. Prior to operating with modifications authorized by the Authority to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

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

Thank you for your cooperation in this matter.

Sincerely,

Arnaud Marjollet
Director of Permit Services

Enclosures

cc: Brian Clerico, CARB (w/enclosure) via email
cc: Gerardo C. Rios, EPA (w/enclosure) via email

Samir Sheikh
Executive Director/Air Pollution Control Officer

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San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Diesel-Fired Emergency Firewater Pump IC Engine

Facility Name:	Liberty Packing Company – The Morning Star Company	Date:	May 28, 2019
Mailing Address:	12045 S Ingomar Grade Road Los Banos, CA 93635	Engineer: Lead Engineer:	Fred Cruz James Harader
Contact Person:	Paul Hopwood	Brandon Salcido (consultant)	
Telephone:	(209) 829-5060	(714) 689-7243	
Application Nos:	N-1399-32-0 & -33-0		
Project No:	N-1191683		
Complete:	May 9, 2019		

I. Proposal:

Liberty Packing Company submitted Authority to Construct applications to install two 1,490 bhp diesel-fired emergency internal combustion (IC) engines each powering an electrical generator.

Liberty Packing Company received their Title V Permit on August 31, 2013. This modification can be classified as a Title V significant modification pursuant to Rule 2520 and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. Liberty Packing Company must apply to administratively amend their Title V permit.

II. Applicable Rules:

Rule 2201 New and Modified Stationary Source Review Rule (2/18/20168)
Rule 2520 Federally Mandated Operating Permits (6/21/2001)
Rule 4001 New Source Performance Standards (4/14/1999)
Rule 4101 Visible Emissions (2/17/2005)
Rule 4102 Nuisance (12/17/1992)
Rule 4201 Particulate Matter Concentration (12/17/1992)
Rule 4701 Stationary Internal Combustion Engines – Phase 1 (8/21/2003)
Rule 4702 Stationary Internal Combustion Engines – Phase 2 (1/18/2007)
Rule 4801 Sulfur Compounds (12/17/1992)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice

Title 13 California Code of Regulations (CCR), Section 2423 – Exhaust Emission Standards and Test Procedures, Off-Road Compression-Ignition Engines and Equipment
Title 17 CCR, Section 93115 - Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition (CI) Engines
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location:

The facility is located at 12045 South Igomar Grade Road, Los Banos, CA. The District has verified that the equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description:

Each emergency engine powers an electrical generator. Other than emergency operation, the engine may be operated up to 50 hours per year for maintenance and testing purposes.

V. Equipment Listing:

N-1399-32-0: 1490 BHP CUMMINS MODEL QST30-G5 NR2 DIESEL-FIRED EMERGENCY ENGINE (TIER 2 CERTIFIED) POWERING AN ELECTRICAL GENERATOR (SERIAL NO. 37233369)

N-1399-33-0: 1490 BHP CUMMINS MODEL QST30-G5 NR2 DIESEL-FIRED EMERGENCY ENGINE (TIER 2 CERTIFIED) POWERING AN ELECTRICAL GENERATOR (SERIAL NO. 37245276)

VI. Emission Control Technology Evaluation:

The applicant has proposed to install two Tier 2 certified diesel-fired IC engines that are each fired on very low-sulfur diesel fuel.

The proposed engines meet the latest Tier Certification requirements for emergency standby engines; therefore, the engine meets the latest ARB/EPA emissions standards for diesel particulate matter, hydrocarbons, nitrogen oxides, and carbon monoxide (see Appendix B copy of the CARB/EPA executive order).

The use of very low-sulfur diesel fuel (0.0015% by weight sulfur maximum) reduces SO_x emissions by over 99% from standard diesel fuel.

VII. General Calculations:

A. Assumptions:

Operating schedule:	24 hours/day, 50 hours/year
Density of diesel fuel:	7.1 lb/gal
EPA F-factor:	9051 dscf/MMBtu (corrected to 60° F)
PM_{10} fraction of diesel exhaust is 96% (Reference - CARB, 1988)	
Fuel heating value:	137,000 Btu/gal
BHP to Btu/hr conversion:	2542.5 Btu/hp-hr
Thermal efficiency of engine	commonly ≈ 35%
Fuel rate (each engine)	72.2 gal/hr @ 100% load (engine data sheet)

B. Emission Factors:

The engine manufacturer supplied the emissions factor for NO_x, CO, VOC and PM_{10} emissions.

Pollutant	Emission Factor (g/bhp-hr)	Source
NOx	3.95	Engine manufacturer
CO	0.66	Engine manufacturer
VOC	0.07	Engine manufacturer
PM_{10}	0.11	Engine manufacturer
SOx	0.005	See calculation below

The emission factor for SO_x may be calculated based on the current CARB standard for diesel sulfur content, which is 15 ppm by weight.

$$\frac{0.000015\ lb-S}{lb-fuel}\times\frac{7.1\ lb-fuel}{gallon}\times\frac{2\ lb-SO_2}{1\ lb-S}\times\frac{1\ gal}{137{,}000\ Btu}\times\frac{1\ bhp\ input}{0.35\ bhp\ out}\times\frac{2{,}542.5\ Btu}{bhp-hr}\times\frac{453.6\ g}{lb}=0.005\ \frac{g-SO_x}{bhp-hr}$$

C. Calculations:

1. Pre-Project Emissions (PE1):

These are new emission units and PE1 will equal zero for all pollutants.

2. Post Project PE (PE2):

The potential to emit emissions from this emergency IC engine is based on the maximum operating capacity of the engine for 24 hours per day. The following calculation for NO_x emissions is representative of emission calculations for all pollutants. Annual emissions are based on 50 hours per year for non-emergency operation for each engine.

N-1399-32-0 & -33-0:

NO_x: 3.95 g/hp-hr × 1,490 hp × lb/453.6 g

NO_x: 12.97 lb/hr, 311.4 lb/day, 649 lb/yr
CO: 2.17 lb/hr, 52.0 lb/day, 108 lb/yr
VOC: 0.23 lb/hr, 5.5 lb/day, 11 lb/yr
PM_{10}: 0.36 lb/hr, 8.7 lb/day, 18 lb/yr
SO_x: 0.02 lb/hr, 0.4 lb/day, 1 lb/yr

	NO_x	CO	VOC	PM_{10}	SO_x
Daily PE	311.4	52.0	5.5	8.7	0.4
Annual PE	649	108	11	18	1

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

Pursuant to Section 4.9 of District Rule 2201, the Pre-Project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid ATCs or PTOs at the Stationary Source and the quantity of Emission Reduction Credits (ERCs) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site. This is an existing facility and SSPE1 emissions are from project N-1151735, unless otherwise noted.

Permit No	Pollutants (lb/yr)				
	NO_x	SO_x	PM_{10}	CO	VOC
Total from N-1399-4-1, 5-1, 11-0, 13-1, 16-1, 17-3, 20-1, 21-0, and 24-0	33,705 *	12,618	30,897	145,130	17,312
N-1399-26-0	0	0	183	0	0
N-1399-27-0	0	0	0	0	730
N-1389-30-0 (ATC) *	--	1,495	2,902	6,922	1,144
N-1399-31-0 (ATC)	0	0	0	0	167
ERC N-33-1	--	--	--	--	241
ERC N-33-2	90,905	--	--	--	--
ERC N-33-4	--	--	3,215	--	--
ERC N-33-5	--	34,984	--	--	--
ERC N-96-2	1,701	--	--	--	--
ERC N-96-3	--	--	--	837	--
Total without ERCs	33,705	14,113	33,982	152,052	19,353
Total with ERCs	126,311	49,097	37,197	152,889	19,594

*ATC N-1399-30-0 is covered by this SLC.

4. Post Project Stationary Source Potential to Emit (SSPE2)

Pursuant to Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid ATCs or PTOs, except for emissions units proposed to be shut down as part of the Stationary Project, at the Stationary Source and the quantity of Emission Reduction Credits (ERCs) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

Permit No	Pollutants (lb/yr)				
	NO_x	SO_x	PM_{10}	CO	VOC
Total from N-1399-4-1, 5-1, 11-0, 13-1, 16-1, 17-3, 20-1, 21-0, and 24-0	33,705 *	12,618	30,897	145,130	17,312
N-1399-26-0	0	0	183	0	0
N-1399-27-0	0	0	0	0	730
N-1389-30-0 (ATC) *	--	1,495	--	6,922	1,144
N-1399-31-0 (ATC)	0	0	0	0	167
***N-1399-32-0 (ATC) **	***649***	***1***	***18***	***108***	***11***
***N-1399-33-0 (ATC) **	***649***	***1***	***18***	***108***	***11***
ERC N-33-1	--	--	--	--	241
ERC N-33-2	90,905	--	--	--	--
ERC N-33-4	--	--	3,215	--	--
ERC N-33-5	--	34,984	--	--	--
ERC N-96-2	1,701	--	--	--	--
ERC N-96-3	--	--	--	837	--
Total without ERCs	33,705	14,115	34,018	152,268	19,375
Total with ERCs	126,311	49,099	37,233	153,105	19,616

*ATCs N-1399-30-0, -32-0 and -33-0 are covered by this SLC.

5. Major Source Determination

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

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

Rule 2201 Major Source Determination (lb/year)					
Category	NOx	SOx	PM_{10}	CO	VOC
SSPE1	33,705	14,113	33,982	152,052	19,353
SSPE2	33,705	14,115	34,018	152,268	19,375
Major Source Thresholds	20,000	140,000	140,000	200,000	20,000
Major Source?	Yes	No	No	No	No

From the above table, the facility is a Major Source for NOx emissions.

Rule 2410 Major Source Determination:

The facility or the equipment evaluated under this project is listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). Therefore, the following PSD Major Source thresholds are applicable.

PSD Major Source Determination (tons/year)						
Category	NO_2	VOC	SO_2	CO	PM	PM_{10}
Estimated Facility PE before Project Increase	16.85	9.68	7.06	76.03	16.99	16.99
PSD Major Source Thresholds	100	100	100	100	100	100
PSD Major Source?	No	No	No	No	No	No

From the above table, the facility is not an existing Major Source under PSD.

6. Baseline Emissions (BE)

BE will equal the Pre-project Potential to Emit for:

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

Otherwise, BE will equal the Historic Actual Emissions (HAE), calculated pursuant to Section 3.23.

Since these are new emission units, BE will equal PE1 and will equal 0 for all criteria pollutants.

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major

stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act." As shown in Section VII.C.5 of this document, this facility is an existing Major Source for NOx emissions.

Since this facility is a major source for NOx, the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if the SB 288 Major Modification calculation is required.

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
NO_x	1,298	50,000	No
SO_x	2	80,000	No
PM_{10}	36	30,000	No
VOC	22	50,000	No

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

8. Federal Major Modification

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

For new emissions units, the increase in emissions is equal to the PE2 for each new unit included in a project.

Each engine's emissions are calculated in this document above. Per the District's draft policy titled *Implementation of Rule 2201 (as amended on 12/18/08 and effective on 6/10/2010) for SB288 and Federal Major Modifications*, a permitting action is a Federal Major Modification if it will result in an increase in emission in excess of the thresholds specified in section 3.18 of Rule 2201 (see table below). The draft policy further states that if the emission increases are less than or equal to 0.5 lb/day, on an average basis, then they are to be rounded to zero (consistent with District Policy APR-1130 Increases in Maximum Daily Permitted Emissions of Less than or Equal to 0.5 lb/day.)

As shown in section VII.C.2 of this document, the total annual potential to emit for NO_x, PM_{10} and VOC emissions for each emergency engine is 649

lb/year, 18 lb/year and 11 lb/year, respectively for each emissions unit. Assuming that each engine would operate an average of no more than 30 minutes per day, for testing and maintenance purposes, it could potentially operate 100 days per year. Therefore, the average daily emission rates can be determined using the annual potential to emit divided by a worst case operating scenario of 100 days per year. [1]

Average Daily PE2 = Annual PE / 365 days/yr

Pollutant	Annual PE (lb/year)	Worst Case Operation (days/year)	Average Daily PE2 (lb/day)
NO_X	649	100	6.49
PM_{10}	18	100	0.18*
VOC	11	100	0.11*

* As explained above, in accordance with District Policy APR-1130, the PE2 rounds to zero for each of these pollutants.

The project's emission increases were calculated in Section VII C and compared to the Federal Major Modification Thresholds in the following table.

Federal Major Modification Thresholds for Emission Increases			
Pollutant	Total Emissions Increases (lb/yr)	Thresholds (lb/yr)	Federal Major Modification?
NO_x	649	0	Yes
VOC	0	0	No
PM_{10}	0	30,000	No
$PM_{2.5}$	0	20,000	No

The Federal Major Modification Threshold for NOx is surpassed with this project and this project constitutes a Federal Major Modification.

9. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

- NO_2 (as a primary pollutant)
- SO_2 (as a primary pollutant)
- CO

[1] Each engine is limited to operate no more than 50 hours per year for testing and maintenance purposes. 50 hr/yr (permit limit) ÷ 0.5 hr/day = 100 days/yr

- PM
- PM_{10}

The facility or equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). The PSD Major Source threshold is 250 tpy for any regulated NSR pollutant. For the purpose of determining major source for PSD, the following sources of emissions shall be excluded:

- Emissions from non-road IC engines (i.e. IC engines at a particular location at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 52.21(b)(1)(i)

Project Emission Increase – Significance Determination

As a screening tool, the potential to emit from all new and modified units at the facility is compared to the PSD major source threshold and if the total potential to emit from all new and modified units at the facility is below this threshold and no futher analysis will be needed.

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). Therefore the following PSD Major Source thresholds are applicable.

PSD Major Source Determination: Potential to Emit (tons/year)						
	NO_2	VOC	SO_2	CO	PM	PM_{10}
Total PE from the new unit	0.65	0.01	0.001	0.11	0.02	0.02
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source ? (Y/N)	N	N	N	N	N	N

As shown in the table above, the potential to emit for the project, by itself, does not exceed any PSD major source thresholds. Therefore Rule 2410 is not applicable and no further discussion is required.

10. Quarterly Net Emissions Change (QNEC):

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen. Detailed QNEC calculations are included in Appendix C.

VIII. Compliance:

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT):

1. BACT Applicability:

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis for the following*:

a) Any new emissions unit with a potential to emit exceeding two pounds per day,
b) The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
c) Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
d) Any new or modified emissions unit, in a stationary source project, which results in a Major Modification.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

a. New emissions units – PE > 2 lb/day:

Since these engines are new emission units, the daily emissions for each engine are compared to the BACT thresholds in the following table:

New Emissions Unit BACT Applicability				
Pollutant	Daily Emissions for unit -32-0 & 337-0 (lb/day)	BACT Threshold (lb/day)	SSPE2 (lb/yr)	BACT Triggered?
NO_X	311.4	> 2.0	n/a	Yes
SO_X	0.4	> 2.0	n/a	No
PM_{10}	8.7	> 2.0	n/a	Yes
CO	52.0	> 2.0 and SSPE2 ≥ 200,000 lb/yr	152,268	No
VOC	5.5	> 2.0	n/a	Yes

Thus BACT will be triggered for NO_X, PM_{10} and VOC emissions from each engine for this project.

b. Relocation of emissions units – PE > 2 lb/day:

These engines are not being relocated from one stationary source to another as a result of this project. Therefore, BACT is not triggered for the relocation of emissions units with a PE > 2 lb/day.

procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115]

B. Offsets:

Since emergency IC engines are exempt from the offset requirements of Rule 2201, per Section 4.6.2, offsets are not required for these engines and offset calculations are not required.

C. Public Notification:

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

a. New Major Source, Federal Major Modification, and SB 288 Major Modification

This facility does not become a new major source and the proposed project will not trigger a SB 288 Major Modification. The project will trigger a Federal Major Modification. Therefore, public noticing for a Federal Major Modification is required.

b. New emission unit with PE > 100 lb/day for any one pollutant

The NOx emissions from each engine has a PE > 100 lb/day as a result of this project. Therefore, public noticing for this purpose is required.

c. Modifications with SSPE1 below an Offset threshold and SSPE2 above an Offset threshold on a pollutant-by-pollutant basis

The propose project does not result in SSPE from below offset threshold level to above offset threshold level for any pollutant. Therefore, public noticing for this purpose is not required.

d. New stationary sources with SSPE2 exceeding Offset thresholds

This is an existing facility and is not a new stationary source. Therefore, public noticing for this purpose is not required.

e. Any permitting action with an SSIPE exceeding 20,000 lb/yr for any one pollutant

The proposed project does not result in SSIPE exceeding 20,000 lb/yr for any one pollutant. Therefore, public noticing for this purpose is not required.

As discussed above, public noticing for Rule 2201 purpose will be required for this project.

D. Daily Emissions Limits

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.15 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, the DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT. For each emergency IC engine, the DELs are stated in the form of emission factors, the maximum engine horsepower rating, and the maximum operational time of 24 hours per day. Therefore, the following conditions will be listed on each ATC to ensure compliance:

- {edited 3485} Emissions from this IC engine shall not exceed any of the following limits: 3.95 g-NOx/bhp-hr, 0.66 g-CO/bhp-hr, or 0.07 g-VOC/bhp-hr. [District Rule 2201 and 13 CCR 2423 and 17 CCR 93115]

- {edited 3486} Emissions from this IC engine shall not exceed 0.11 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115]

- {3395} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115]

E. Compliance Assurance:

1. Source Testing:

Pe District Practice, source testing is not required for emergency IC engines to demonstrate compliance with Rule 2201.

2. Monitoring:

Monitoring is not required to demonstrate compliance with Rule 2201.

3. Recordkeeping:

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

c. Modification of emissions units – Adjusted Increase in Permitted Emissions (AIPE) > 2 lb/day

These engines are not being modified as a result of this project. Therefore, BACT is not triggered for the modification of emissions units with an AIPE > 2 lb/day.

d. Major Modification

As discussed previously in Section VII.C.7, this project does constitute a Major Modification. Therefore, BACT is triggered for a Major Modification for NOx emissions.

2. BACT Guideline:

BACT Guideline 3.1.1, which appears in Appendix D of this report, covers diesel-fired emergency IC engines.

3. Top Down BACT Analysis:

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

Pursuant to the attached top down BACT Analysis, which appears in Appendix D of this report, BACT is satisfied with:

N-1399-32-0 & -33-0:

NOx, VOC:	Latest Available Tier Certification level for applicable horsepower* *Note: The test certification requirements for emergency engines are as follows: 50 ≤ bhp < 75 – Tier 4I; 75 ≤ bhp < 750 – Tier 3; ≥ 750 bhp – Tier 2
PM_{10}:	0.15 g/bhp-hr, or latest available Tier Certification level for applicable horsepower

Therefore, the following conditions will be listed on each ATC to ensure compliance:

- {edited 3485} Emissions from this IC engine shall not exceed any of the following limits: 3.95 g-NOx/bhp-hr, 0.66 g-CO/bhp-hr, or 0.07 g-VOC/bhp-hr. [District Rule 2201 and 13 CCR 2423 and 17 CCR 93115]
- {edited 3486} Emissions from this IC engine shall not exceed 0.11 g-PM_{10}/bhp-hr based on USEPA certification using ISO 8178 test

c. Modification of emissions units – Adjusted Increase in Permitted Emissions (AIPE) > 2 lb/day

These engines are not being modified as a result of this project. Therefore, BACT is not triggered for the modification of emissions units with an AIPE > 2 lb/day.

d. Major Modification

As discussed previously in Section VII.C.7, this project does constitute a Major Modification. Therefore, BACT is triggered for a Major Modification for NOx emissions.

2. BACT Guideline:

BACT Guideline 3.1.1, which appears in Appendix D of this report, covers diesel-fired emergency IC engines.

3. Top Down BACT Analysis:

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

Pursuant to the attached top down BACT Analysis, which appears in Appendix D of this report, BACT is satisfied with:

N-1399-32-0 & -33-0:

NO_X, VOC:	Latest Available Tier Certification level for applicable horsepower* *Note: The test certification requirements for emergency engines are as follows: 50 ≤ bhp < 75 – Tier 4I; 75 ≤ bhp < 750 – Tier 3; ≥ 750 bhp – Tier 2
PM_{10}:	0.15 g/bhp-hr, or latest available Tier Certification level for applicable horsepower

Therefore, the following conditions will be listed on each ATC to ensure compliance:

- {edited 3485} Emissions from this IC engine shall not exceed any of the following limits: 3.95 g-NOx/bhp-hr, 0.66 g-CO/bhp-hr, or 0.07 g-VOC/bhp-hr. [District Rule 2201 and 13 CCR 2423 and 17 CCR 93115]

- {edited 3486} Emissions from this IC engine shall not exceed 0.11 g-PM_{10}/bhp-hr based on USEPA certification using ISO 8178 test

4. Reporting:

Reporting is not required to ensure compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

Section 4.14 of District Rule 2201 requires that an AAQA be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The District's Technical Services Division conducted the required analysis. Refer to Appendix E for the AAQA summary sheet.

The proposed location is in an attainment area for NO_x, CO, and SO_x. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for NO_x, CO, or SO_x.

The proposed location is in a non-attainment area for the state's PM_{10} as well as federal and state $PM_{2.5}$ thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM_{10} and $PM_{2.5}$.

G. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Federal Major Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Section VIII above, this project does constitute a Federal Major Modification, therefore this requirement is applicable. The Liberty Packing Company's compliance certification is included in Appendix F.

H. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant proposes to install two 1,490 bhp diesel-fired emergency engines each powering an electrical generator.

Since the project will provide two 1,490 bhp diesel-fired emergency engines each powering an electrical generator to be used at the same location, the existing site will result in the least possible impact from the project. Alternative sites would involve the relocation and/or construction of various support structures on a much greater scale, and would therefore result in a much greater impact.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule and has received their Title V Operating Permit. The proposed modification is a Major Modification to the Title V Permit pursuant to Section 3.20 of this rule. A significant permit modification is defined as a "permit amendment that does not qualify as a minor permit modification or administrative amendment."

As discussed above, the facility has applied for a Certificate of Conformity (COC). Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility shall not implement the changes requested until the final permit is issued. Therefore, the following conditions will be listed on each ATC to ensure compliance:

- {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] 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 (NSPS)

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

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60.

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

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

40 CFR 89.112:

This section states that units manufactured in 2006 and later must meet EPA Tier 2 emission standards. Each engine is a Tier 2 certified unit. Therefore, the proposed engines will comply with this requirement.

40 CFR 89.113:

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

As indicated above, the proposed IC engines comply with the requirements of this subpart, and the following conditions will be listed on the permit to ensure compliance.

- Emissions from this IC engine shall not exceed any of the following limits: 3.95 g-NOx/bhp-hr, 0.66 g-CO/bhp-hr, or 0.07 g-VOC/bhp-hr. [District Rule 2201, 17 CCR 93115, and 40 CFR 60 Subpart IIII]

- Emissions from this IC engine shall not exceed 0.11 g-PM_{10}/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115 and 40 CFR 60 Subpart IIII]

§60.4207(b) requires that owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must purchase diesel fuel that meets the requirements of 40 CFR 80.510(b) for non-road diesel fuel.

§80.510(b)(2) requires that all non-road diesel fuel is subject to the following per-gallon standards.

- Sulfur content – 15 ppm maximum for non-road diesel fuel
- Cetane index or aromatic content – a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

The proposed engine is limited to exclusively use of CARB Diesel Fuel, which has a sulfur content of 15 ppm or less and a maximum aromatic content of 20 percent by volume. Therefore, use of CARB Diesel Fuel satisfies the requirement of this section, and the following condition will be listed on the permit to ensure compliance.

- Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, 17 CCR 93115, and 40 CFR 60 Subpart IIII]

§60.4211(a)(1) requires that the owner or operator must operate and maintain the stationary CI ICE and control device according to the manufacturer's emission-related written instructions. Therefore, the following condition will be listed on the permit to ensure compliance with the requirement of this section.

- This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR 60 Subpart IIII]

§60.4211(f) states that emergency stationary ICEs may operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance check and readiness testing or such units is limited to 50 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations.

Therefore, the following condition will be listed on each permit to ensure compliance with the requirement of this section.

- {4920} This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 2201, 4102, and 4702, and 17 CCR 93115]

Compliance with the requirements of this Subpart and Rule 4001 is expected.

Rule 4002 National Emission Standards for Hazardous Air Pollutants

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

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

<u>40 CFR Part 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</u>

These units are new and as shown in appendix D of this document, the facility is an Area Source of HAP emissions. Per 63.6590(c), such units must comply with this subpart by complying with 40 CFR Part 60 Subpart IIII. As shown above, compliance with Subpart IIII will be met.

Rule 4101 Visible Emissions

Rule 4101 states that 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. Therefore, the following condition will be listed on the ATC to ensure compliance:

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

Rule 4102 Nuisance

Rule 4102 states that no air contaminant shall be released into the atmosphere which causes a public nuisance. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, the following condition will be listed on each ATC to ensure compliance:

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

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 - Risk Management Policy for Permitting New and Modified Sources (dated 3/2/2001) specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite. Technical Services performed a Risk Management Review for the proposed installation of two 1,490 bhp diesel-fired emergency IC engine each powering an electrical generator. (See RMR Summary in Appendix D).

The District performed an analysis pursuant to the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015) to determine the possible cancer and non-cancer health impact to the nearest resident or worksite. This policy requires that an assessment be performed on a unit by unit basis, project basis, and on a facility-wide basis. If a preliminary prioritization analysis demonstrates that:

- A unit's prioritization score is less than the District's significance threshold and;
- The project's prioritization score is less than the District's significance threshold and;
- The facility's total prioritization score is less than the District's significance threshold

Then, generally no further analysis is required.

The District's significant prioritization score threshold is defined as being equal to or greater than1.0. If a preliminary analysis demonstrates that either the unit(s) or the project's or the facility's total prioritization score is greater than the District threshold, a screening or a refined assessment is required

If a refined assessment is greater than one in a million but less than 20 in one million for carcinogenic impacts (Cancer Risk) and less than 1.0 for the Acute and Chronic hazard indices(Non-Carcinogenic) on a unit by unit basis, project basis and on a facility-wide basis the proposed application is considered less than significant. For unit's that exceed a cancer risk of 1 in one million, Toxic Best Available Control Technology (TBACT) must be implemented.

Toxic emissions for this project were calculated using the following methods:

- Toxic emissions for the proposed unit were calculated and provided by the processing engineer.

These emissions were input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy, risks from the proposed unit's toxic emissions were prioritized using the procedure in the 2016 CAPCOA Facility Prioritization Guidelines. The prioritization score for this proposed facility was greater than 1.0 (see RMR Summary Table below). Therefore, a refined health risk assessment was required.

The AERMOD model was used, with the parameters outlined below and meteorological data for 2004-2008 from the Los Banos area (rural dispersion coefficient selected) to determine the dispersion factors for a receptor grid. These dispersion factors were input into the SHARP Program, which then used the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

Pollutant	Air Quality Standard (State/Federal)				
	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	NA		NA		
NO_x	NA				Pass
SO_x	NA	NA		NA	Pass
PM_{10}				NA	Pass
$PM_{2.5}$				NA	Pass
Ozone	NA		NA		

Notes:

1. Results were taken from the attached AAQA Report.
2. The project is an intermittent source as defined in APR-1920. In accordance with APR-1920, compliance with short-term (i.e., 1-hour, 3-hour, 8-hour and 24-hour) standards is not required.
3. The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2) unless otherwise noted.
4. Modeled PM10 concentrations were below the District SIL for non-fugitive sources of 1 $\mu g/m^3$ for the annual concentration.
5. Modeled PM2.5 concentrations were below the District SIL for non-fugitive sources of 0.2 $\mu g/m^3$ for the annual concentration.

Unit # -32-0 & -33-0:

1. The PM_{10} emissions rate shall not exceed 0.11 g/bhp-hr based on US EPA certification using ISO 8178 test procedure.

2. 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.
3. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year.

Rule 4201 Particulate Matter Concentration

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:

$$0.11 \quad \frac{g-PM_{10}}{bhp-hr} \times \frac{1g-PM}{0.96g-PM_{10}} \times \frac{1\,bhp-hr}{2{,}542.5\,Btu} \times \frac{10^6\,Btu}{9{,}051\,dscf} \times \frac{0.35\,Btu_{out}}{1\,Btu_{in}} \times \frac{15.43\,grain}{g} = \quad 0.026 \quad \frac{grain-PM}{dscf}$$

Since 0.026 grain-PM/dscf is ≤ to 0.1 grain per dscf, compliance with Rule 4201 is expected.

Therefore, the following condition will be listed on the ATC to ensure compliance:

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

Rule 4701 Internal Combustion Engines – Phase 1

Pursuant to Section 7.5.2.3 of District Rule 4702, as of June 1, 2006 District Rule 4701 is no longer applicable to diesel-fired emergency standby or emergency IC engines. Therefore, this diesel-fired emergency IC engine will comply with the requirements of District Rule 4702 and no further discussion is required.

Rule 4702 Internal Combustion Engines – Phase 2

The following table demonstrates how the proposed engines will each comply with the requirements of District Rule 4702.

District Rule 4702 Requirements Emergency Standby IC Engines	Proposed Method of Compliance with District Rule 4702 Requirements
Operation of emergency standby engines is limited to 100 hours or less per calendar year for non-emergency purposes, verified through the use of a non-resettable elapsed operating time meter.	This emergency engine will be limited to 100 hours per calendar year for non-emergency purposes. Thus, compliance is expected.
Emergency standby engines cannot be used to reduce the demand for electrical power when normal electrical power line service has not failed, or to produce power for the electrical distribution system, or in conjunction with a voluntary utility	The following conditions will be included on the permits: • {3807} An emergency situation is an unscheduled electrical power outage caused

demand reduction program or interruptible power contract.	by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rules 4701 and 4702] • {3808} This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rules 4701 and 4702]
The owner/operator must monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier.	The following condition will be included on the permits: • {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 Rules 4701 and 4702]
Records of the total hours of operation of the emergency standby engine, type of fuel used, purpose for operating the engine, all hours of non-emergency and emergency operation, and support documentation must be maintained. All records shall be retained for a period of at least five years, shall be readily available, and be made available to the APCO upon request.	The following conditions will be included on the permits: • {3496} The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] • The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]

	• {3475} All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 4701 and 4702 and 17 CCR 93115]

Rule 4801 Sulfur Compounds

Rule 4801 requires that sulfur compound emissions (as SO_2) shall not exceed 0.2% by volume. Using the ideal gas equation, the sulfur compound emissions are calculated as follows:

Volume SO_2 = (n x R x T) ÷ P
n = moles SO_2
T (standard temperature) = 60 °F or 520 °R

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

$$\frac{0.000015\ lb - S}{lb - fuel} \times \frac{7.1\ \text{lb}}{\text{gal}} \times \frac{64\ \text{lb} - SO_2}{32\ \text{lb} - \text{S}} \times \frac{1\ \text{MMBtu}}{9{,}051\ \text{scf}} \times \frac{1\ \text{gal}}{0.137\ \text{MMBtu}} \times \frac{\text{lb} - \text{mol}}{64\ \text{lb} - SO_2} \times \frac{10.73\ \text{psi} - \text{ft}^3}{\text{lb} - \text{mol} - {}^\circ\text{R}} \times \frac{520{}^\circ\text{R}}{14.7\ \text{psi}} \times 1{,}000{,}000 = 1.0\ \text{ppmv}$$

Since 1.0 ppmv is ≤ 2,000 ppmv, these engines are 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 and 4801, and 17 CCR 93115]

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

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

The following table demonstrates how the proposed engines will comply with the requirements of Title 17 CCR Section 93115. The following requirements apply to new engines (those installed after 1/1/2005):

Title 17 CCR Section 93115 Requirements for New Emergency IC Engines Powering Electrical Generators	Proposed Method of Compliance with Title 17 CCR Section 93115 Requirements
Emergency engines must be fired on CARB diesel fuel, or an approved	The applicant has proposed the use of CARB certified diesel fuel. The proposed permit condition, requiring

alternative diesel fuel.	the use of CARB certified diesel fuel, is included on the permits. • {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]
The engine must meet the emission standards in Table 1 of the ATCM for the specific power rating and model year of the proposed engine.	The applicant has proposed the use of an engine that is certified to the latest EPA Tier Certification standards for the applicable horsepower range, guaranteeing compliance with the emission standards of the ATCM. Additionally, the proposed diesel PM emissions rate is less than or equal to 0.15 g/bhp-hr.
The engine may not be operated more than 50 hours per year for maintenance and testing purposes unless the PM emissions are ≤ 0.01 g/bhp-hr, then the engine is allowed 100 hours per year. Emissions from this engine are certified at 0.08 g/bhp-hr, therefore the engine is allowed 50 hours.	The following conditions will be included on the permits: • {4772} Emissions from this IC engine shall not exceed 0.08 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115] • {4920} This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 2201, 4102, and 4702, and 17 CCR 93115]
A non-resettable hour meter with a minimum display capability of 9,999 hours shall be installed upon engine installation, or by no later than January 1, 2005, on all engines subject to all or part of the requirements of sections 93115.6, 93115.7, or 93115.8(a) unless the District determines on a case-by-case basis that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history.	The following condition will be included on the permits: • {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]
An owner or operator shall maintain monthly records of the following: emergency use hours of operation; maintenance and testing hours of operation; hours of operation for emission testing; initial start-up testing hours; hours of operation for all other uses; and the type of fuel used. All records shall be	The following condition will be included on the permit: • {3496} The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for

retained for a minimum of 36 months.	example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115]

California Environmental Quality Act (CEQA)

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

The basic purposes of CEQA are to:

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

The District performed an Engineering Evaluation (this document) for the proposed project and determined that 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 project is exempt from the provisions of CEQA.

Indemnification Agreement/Letter of Credit Determination

According to District Policy APR 2010 (CEQA Implementation Policy), when the District is the Lead or Responsible Agency for CEQA purposes, an indemnification agreement and/or a letter of credit may be required. The decision to require an indemnity agreement and/or a letter of credit are based on a case-by-case analysis of a particular project's potential for litigation risk, which in turn may be based on a project's potential to generate public concern, its potential for

significant impacts, and the project proponent's ability to pay for the costs of litigation without a letter of credit, among other factors.

As described above, the project requires only ministerial approval, and is exempt from the provisions of CEQA. As such, an Indemnification Agreement or a Letter of Credit will not be required for this project in the absence of expressed public concern.

IX. Recommendation:

Compliance with all applicable rules and regulations is expected. Issue Authority to Construct N-1399-32-0 and N-1399-33-0 subject to the permit conditions on the attached draft Authorities to Construct in Appendix A.

X. Billing Information:

Billing Schedule			
Permit Number	**Fee Schedule**	**Fee Description**	**Fee Amount**
N-1399-32-0	3020-10-F	1,490 bhp IC engine	$860
N-1399-33-0	3020-10-F	1,490 bhp IC engine	$860

Appendices:

A. Draft Authority to Construct permits N-1399-32-0 and N-1399-33-0
B. Engine Emission Factors Certification
C. QNEC Calculations
D. BACT Top-Down analysis and Guideline 3.1.4
E. RMR Summary
F. Certificate of Compliance form

Appendix A

Draft Authority to Construct permits

N-1399-32-0 and N-1399-33-0

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1399-32-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: LIBERTY PACKING CO - THE MORNING STAR CO
MAILING ADDRESS: 12045 S INGOMAR GRADE RD
LOS BANOS, CA 93635

LOCATION: 12045 S INGOMAR GRADE RD
LOS BANOS, CA 93635

EQUIPMENT DESCRIPTION:
1490 BHP CUMMINS MODEL QST30-G5 NR2 DIESEL-FIRED EMERGENCY ENGINE (TIER 2 CERTIFIED) POWERING AN ELECTRICAL GENERATOR (SERIAL NO. 37233369)

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
5. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
6. The facility-wide NOx emissions shall not exceed 33,705 pounds during any one rolling 12 month period. [District Rule 2201] Federally Enforceable Through Title V Permit
7. A record of the facility-wide NOx emissions (in pounds) shall be kept. The record shall be on a rolling 12 month total basis and shall be updated at least weekly. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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] 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.

Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

N-1399-32-0 Jun 3 2019 11:41AM – CRUZF : Joint Inspection NOT Required

9. This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
10. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115] Federally Enforceable Through Title V Permit
11. Emissions from this IC engine shall not exceed any of the following limits: 3.95 g-NOx/bhp-hr, 0.66 g-CO/bhp-hr, or 0.07 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. Emissions from this IC engine shall not exceed 0.11 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115] Federally Enforceable Through Title V Permit
13. 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
14. 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
15. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
16. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
17. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
18. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 2201, 4102, and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
19. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
20. 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 Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1399-33-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: LIBERTY PACKING CO - THE MORNING STAR CO
MAILING ADDRESS: 12045 S INGOMAR GRADE RD
LOS BANOS, CA 93635

LOCATION: 12045 S INGOMAR GRADE RD
LOS BANOS, CA 93635

EQUIPMENT DESCRIPTION:
1490 BHP CUMMINS MODEL QST30-G5 NR2 DIESEL-FIRED EMERGENCY ENGINE (TIER 2 CERTIFIED) POWERING AN ELECTRICAL GENERATOR (SERIAL NO. 37245276)

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
5. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
6. The facility-wide NOx emissions shall not exceed 33,705 pounds during any one rolling 12 month period. [District Rule 2201] Federally Enforceable Through Title V Permit
7. A record of the facility-wide NOx emissions (in pounds) shall be kept. The record shall be on a rolling 12 month total basis and shall be updated at least weekly. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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] 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.

Samir Sheikh, Executive Director / APCO

DRAFT

Arnaud Marjollet, Director of Permit Services

N-1399-33-0 Jun 3 2019 11:41AM – CRUZF Joint Inspection NOT Required

9. This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
10. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115] Federally Enforceable Through Title V Permit
11. Emissions from this IC engine shall not exceed any of the following limits: 3.95 g-NOx/bhp-hr, 0.66 g-CO/bhp-hr, or 0.07 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. Emissions from this IC engine shall not exceed 0.11 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115] Federally Enforceable Through Title V Permit
13. 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
14. 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
15. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
16. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
17. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
18. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 2201, 4102, and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
19. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
20. 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 Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

Appendix B

Engine Certification Documents

California Environmental Protection Agency AIR RESOURCES BOARD	CUMMINS INC.	EXECUTIVE ORDER U-R-002-0535 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2010	ACEXL030.AAD	30.0	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Charge Air Cooler	Generator

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
kW > 560	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	N/A	N/A	N/A
		CERT	--	--	5.9	0.7	0.12	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 3rd day of August 2009.

Raphael Susnowitz

for Annette Hebert, Chief
Mobile Source Operations Division

Appendix C
QNEC Calculations

Quarterly Net Emissions Change (QNEC)

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

QNEC = PE2 - PE1, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr
PE2 = Post-Project Potential to Emit for each emissions unit, lb/qtr
PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qtr

Using the emission calculations in this evaluation, $PE2_{quarterly}$ and $BE_{quarterly}$ can be calculated as follows:

This calculation is required for application emission profile purposes. It is assumed that each unit's annual emissions are evenly distributed throughout the year as follows:

ΔPE (lb/qtr) = PE (lb/yr) ÷ 4 qtr/yr

N-1399-32-0 & -33-0:

ΔPE_{NOx} = 649 lb-NOx/year – 0 lb-NOx/year = 649 lb/year
ΔPE_{CO} = 108 lb-CO/year – 0 lb-CO/year = 108 lb/year
ΔPE_{VOC} = 11 lb-VOC/year – 0 lb-VOC/year = 11 lb/year
ΔPE_{PM10} = 18 lb-PM10/year – 0 lb-PM10/year = 18 lb/year
ΔPE_{SOx} = 1 lb-SOx/year – 0 lb-SOx/year = 1 lb/year

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
NOx	162	162	162	163
CO	27	27	27	27
VOC	2	3	3	3
PM_{10}	4	4	5	5
SOx	0	0	0	1

Appendix D

BACT Guideline and BACT Analysis

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 3.1.1
Last Update: 9/10/2013
Emergency Diesel IC Engine

Pollutant	Achieved in Practice or in the SIP	Technologically Feasible	Alternate Basic Equipment
CO	Latest EPA Tier Certification level for applicable horsepower range		
NOX	Latest EPA Tier Certification level for applicable horsepower range		
PM_{10}	0.15 g/hp-hr or the Latest EPA Tier Certification level for applicable horsepower range, whichever is more stringent. (ATCM)		
SOX	Very low sulfur diesel fuel (15 ppmw sulfur or less)		
VOC	Latest EPA Tier Certification level for applicable horsepower range		

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

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

Top-Down BACT Analysis for NOx and VOC emissions:

BACT Guideline 3.1.1 (September 10, 2013) applies to emergency diesel IC engines. In accordance with the District BACT policy, information from that guideline will be utilized without further analysis.

1. BACT analysis for NO_x and VOC emissions:

a. Step 1 - Identify all control technologies

BACT Guideline 3.1.1 identifies only the following option:

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

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

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

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

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

Table 1: Emission Standards for New Stationary Emergency Standby Diesel-Fueled CI Engines g/bhp-hr (g/kW-hr)					
Maximum Engine Power	**Tier**	**Model Year(s)**	**PM**	**NMHC+NOx**	**CO**
50≤ HP < 75 (37≤ HP < 56)	2	2007	0.15 (0.20)	5.6 (7.5)	3.7 (5.0)
	4I	2008+		3.5 (4.7)	
75≤ HP < 100 56≤ HP < 75	2	2007	0.15 (0.20)	5.6 (7.5)	3.7 (5.0)
	3	2008+		3.5 (4.7)	
100≤ HP < 175 75≤ HP < 130	3	2007	0.15 (0.20)	3.0 (4.0)	3.7 (5.0)
		2008+			
175≤ HP < 300 130≤ HP < 225	3	2007	0.15 (0.20)	3.0 (4.0)	3.7 (5.0)
		2008+			
300≤ HP < 600 225≤ HP < 450	3	2007	0.15 (0.20)	3.0 (4.0)	3.7 (5.0)
		2008+			
600≤ HP < 750 450≤ HP < 560	3	2007	0.15 (0.20)	3.0 (4.0)	3.7 (5.0)
		2008+			
HP > 750 (kW > 560)	2	2007	0.15 (0.20)	4.8 (6.4)	2.6 (3.5)

Additionally, 40 CFR Subpart IIII establishes emission standards for emergency diesel IC engines. These emission standards are the same as those specified in the CARB ATCM, except for engines rated greater than or equal to 100 and less than 175 hp. For such IC engines, the CARB ATCM is more stringent.

Therefore, the most stringent applicable emission standards are those listed in the CARB ATCM (Table 1). For IC engines rated greater than 750 hp, the Tier required is Tier 2.

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

The proposed engines covered by permit units N-1399-32-0 and N-1399-33-0 are each rated at 1,490 bhp. Therefore, the applicable control technology option is the use of an EPA Tier 2 certified engine, which the applicant is proposing.

b. Step 2 - Eliminate technologically infeasible options

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

c. Step 3 - Rank remaining options by control effectiveness

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

d. Step 4 - Cost Effectiveness Analysis

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

e. Step 5 - Select BACT

BACT for NOx and VOC emissions is the use of an EPA Tier 2 certified engine. The applicant is proposing such units. Therefore, the District's BACT requirements will be satisfied.

2. BACT Analysis for PM_{10} Emissions:

a. Step 1 - Identify all control technologies

BACT Guideline 3.1.1 identifies only the following option:

- *0.15 g/bhp-hr or the Latest EPA Tier Certification level for applicable horsepower range, whichever is more stringent. (ATCM)*

The latest EPA Tier Certification level for an engine of the proposed model year and horsepower rating is Tier 3. Refer to the Top-Down BACT analysis for NOx for a discussion regarding the determination of the EPA Tier level to be considered.

Please note Tier 2 or 3 IC engines do not have a PM emission standard that is more stringent than 0.15 g/bhp-hr. Additionally, the ATCM requires a PM emission standard of 0.15 g/bhp-hr for all new emergency diesel IC engines.

Therefore, a PM/PM_{10} emission standard of 0.15 g/bhp-hr is required as BACT.

b. Step 2 - Eliminate technologically infeasible options

The control option listed in Step 1 is technologically feasible.

c. Step 3 - Rank remaining options by control effectiveness

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

d. Step 4 - Cost Effectiveness Analysis

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

e. Step 5 - Select BACT

BACT for the control of PM_{10} emissions is the use of an engine with an emission factor of 0.15 g/bhp-hr, or less. The applicant is proposing an engine that meets this requirement. Therefore, BACT will be satisfied.

Appendix E

RMR Summary

San Joaquin Valley Air Pollution Control District
Risk Management Review and Ambient Air Quality Analysis

To: Fred Cruz – Permit Services

From: Jessica Rosas – Technical Services

Date: May 16, 2019

Facility Name: Liberty Packing Company – The Morning Star Company

Location: 12045 S Ingomar Grade Rd, Los Banos

Application Nos: N-1399-32-0 & -33-0

Project No: N-1191683

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1. Summary

1.1 RMR

Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required	Special Permit Requirements
32	N/A[1]	N/A[2]	0.00	2.58E-07	No	Yes
33	N/A[1]	N/A[2]	0.00	2.58E-07	No	Yes
Project Totals	0.00	0.00	0.00	5.15E-07		
Facility Totals	2.22	0.00	0.00	1.65E-06		

Notes:

[1]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.

[2]Acute Hazard Index was not calculated since there is no risk factor or the risk factor is so low that it has been determined to be insignificant for this type of unit.

1.2 AAQA

Pollutant	Air Quality Standard (State/Federal)				
	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	NA		NA		
NO_x	NA				Pass
SO_x	NA	NA		NA	Pass
PM10				NA	Pass
PM2.5				NA	Pass
Ozone	NA		NA		

Notes:
1. Results were taken from the attached AAQA Report.
2. The project is an intermittent source as defined in APR-1920. In accordance with APR-1920, compliance with short-term (i.e., 1-hour, 3-hour, 8-hour and 24-hour) standards is not required.
3. [2]The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2) unless otherwise noted.
4. Modeled PM10 concentrations were below the District SIL for non-fugitive sources of 1 $\mu g/m^3$ for the annual concentration.
5. Modeled PM2.5 concentrations were below the District SIL for non-fugitive sources of 0.2 $\mu g/m^3$ for the annual concentration.

1.3 Proposed Permit Requirements

Unit # 32-0 and 33-0

1. The PM_{10} emissions rate shall not exceed 0.11 g/bhp-hr based on US EPA certification using ISO 8178 test procedure.
2. 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.
3. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year.

2. Project Description

Technical Services received a request on May 16, 2019 to perform a Risk Management Review (RMR) and Ambient Air Quality Analysis (AAQA) for the following:

- Unit -32-0: 1490 BHP CUMMINS MODEL QST30-G5 NR2 DIESEL-FIRED EMERGENCY ENGINE (TIER 2 CERTIFIED) POWERING AN ELECTRICAL GENERATOR (SERIAL NO. 37233369)
- Unit -33-0: 1490 BHP CUMMINS MODEL QST30-G5 NR2 DIESEL-FIRED EMERGENCY ENGINE (TIER 2 CERTIFIED) POWERING AN ELECTRICAL GENERATOR (SERIAL NO. 37245276)

3. RMR Report

3.1 Analysis

The District performed an analysis pursuant to the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015) to determine the possible

cancer and non-cancer health impact to the nearest resident or worksite. This policy requires that an assessment be performed on a unit by unit basis, project basis, and on a facility-wide basis. If a preliminary prioritization analysis demonstrates that:

- A unit's prioritization score is less than the District's significance threshold and;
- The project's prioritization score is less than the District's significance threshold and;
- The facility's total prioritization score is less than the District's significance threshold

Then, generally no further analysis is required.

The District's significant prioritization score threshold is defined as being equal to or greater than1.0. If a preliminary analysis demonstrates that either the unit(s) or the project's or the facility's total prioritization score is greater than the District threshold, a screening or a refined assessment is required

If a refined assessment is greater than one in a million but less than 20 in one million for carcinogenic impacts (Cancer Risk) and less than 1.0 for the Acute and Chronic hazard indices(Non-Carcinogenic) on a unit by unit basis, project basis and on a facility-wide basis the proposed application is considered less than significant. For unit's that exceed a cancer risk of 1 in one million, Toxic Best Available Control Technology (TBACT) must be implemented.

Toxic emissions for this project were calculated using the following methods:

- Toxic emissions for the proposed unit were calculated and provided by the processing engineer.

These emissions were input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy, risks from the proposed unit's toxic emissions were prioritized using the procedure in the 2016 CAPCOA Facility Prioritization Guidelines. The prioritization score for this proposed facility was greater than 1.0 (see RMR Summary Table). Therefore, a refined health risk assessment was required.

The AERMOD model was used, with the parameters outlined below and meteorological data for 2004-2008 from Los Banos (rural dispersion coefficient selected) to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the SHARP Program, which then used the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Source Process Rates					
Unit Id	**Process Id**	**Process Material**	**Process Units**	**Hourly Process Rate**	**Annual Process Rate**
32	1	PM_{10}	lb	0.36	18
33	1	PM_{10}	lb	0.36	18

Point Source Parameters						
Unit Id	Unit Description	Release Height (m)	Temp. (°K)	Exit Velocity (m/sec)	Stack Diameter (m)	Vertical/ Horizontal/ Capped
32	DICE 32	3.96	750	1.95	1.52	Vertical
33	DICE 33	3.96	750	1.95	1.52	Vertical

4. AAQA Report

The District modeled the impact of the proposed project on the National Ambient Air Quality Standard (NAAQS) and/or California Ambient Air Quality Standard (CAAQS) in accordance with District Policy APR-1925 (Policy for District Rule 2201 AAQA Modeling) and EPA's Guideline for Air Quality Modeling (Appendix W of 40 CFR Part 51). The District uses a progressive three level approach to perform AAQAs. The first level (Level 1) uses a very conservative approach. If this analysis indicates a likely exceedance of an AAQS or Significant Impact Level (SIL), the analysis proceeds to the second level (Level 2) which implements a more refined approach. For the 1-hour NO_2 standard, there is also a third level that can be implemented if the Level 2 analysis indicates a likely exceedance of an AAQS or SIL.

The modeling analyses predicts the maximum air quality impacts using the appropriate emissions for each standard's averaging period. Required model inputs for a refined AAQA include background ambient air quality data, land characteristics, meteorological inputs, a receptor grid, and source parameters including emissions. These inputs are described in the sections that follow.

Ambient air concentrations of criteria pollutants are recorded at monitoring stations throughout the San Joaquin Valley. Monitoring stations may not measure all necessary pollutants, so background data may need to be collected from multiple sources. The following stations were used for this evaluation:

Monitoring Stations				
Pollutant	Station Name	County	City	Measurement Year
CO	Madera-Pump Yard	Madera	Madera	2016
NOx	Merced-Coffee	Merced	Merced	2016
PM_{10}	2334 'M' ST.	Merced	Merced	2016
$PM_{2.5}$	Merced-Coffee	Merced	Merced	2016
SOx	Fresno - Garland	Fresno	Fresno	2016

Technical Services performed modeling for directly emitted criteria pollutants with the emission rates below:

Emission Rates (lbs/year)						
Unit Id	Process	NOx	SOx	CO	PM_{10}	$PM_{2.5}$
32	1	649	1	0	18	18
33	1	649	1	0	18	18

The AERMOD model was used to determine if emissions from the project would cause or contribute to an exceedance of any state of federal air quality standard. The parameters outlined

below and meteorological data for 2004-2008 from Los Banos (rural dispersion coefficient selected) were used for the analysis:

The following parameters were used for the review:

Point Source Parameters						
Unit Id	**Unit Description**	**Release Height (m)**	**Temp. (°K)**	**Exit Velocity (m/sec)**	**Stack Diameter (m)**	**Vertical/ Horizontal/ Capped**
32	DICE	3.96	750	1.95	1.52	Vertical
33	DICE	3.96	750	1.95	1.52	Vertical

5. Conclusion

5.1 RMR

The cumulative acute and chronic indices for this facility, including this project, are below 1.0; and the cumulative cancer risk for this facility, including this project, is less than 20 in a million. In addition, the cancer risk for each unit in this project is less than 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

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

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

5.2 AAQA

The emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS.

Attachments

A. Modeling request from the project engineer

B. Additional information from the applicant/project engineer

C. Prioritization score with toxic emissions summary

D. Facility Summary

E. AAQA results

Appendix F

Certificate of Compliance form

San Joaquin Valley Air Pollution Control District

www.valleyair.org

Permit Application For:

ADMINISTRATIVE AMENDMENT MINOR MODIFICATION SIGNIFICANT MODIFICATION

PRIVATE 1. PERMIT TO BE ISSUED TO: Liberty Packing Co. -The Morning Star Co.
2. MAILING ADDRESS: STREET/P.O. BOX: 12045 S. Ingomar Grade Rd. CITY: Los Banos STATE: CA 9-DIGIT ZIP CODE: 93635

3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:	INSTALLATION DATE:
STREET: 12045 S. Ingomar Grade Rd. CITY: Los Banos ¼ SECTION: TOWNSHIP: RANGE:	08/01/2019

4. GENERAL NATURE OF BUSINESS: Agricultural Products Processing
5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary) Two temporary/rental identical electrical generators powered by diesel fueled internal combustion engines. See application for engine specifications, emissions, and site map. SJVAPCD project number N-1191683.

6. TYPE OR PRINT NAME OF APPLICANT:	TITLE OF APPLICANT:
Wade Ingram	Steam Generating Colleague
7. SIGNATURE OF APPLICANT: DATE: Wade Ingram 6/3/19	PHONE #: (209) 829-5061 CELL PHONE #: () E-MAIL: wingram@morningstarco.com

FOR APCD USE ONLY:

PRIVATE DATE STAMP	FILING FEE RECEIVED: $ CHECK #: DATE PAID: PROJECT #: FACILITY ID:

APPLICATION FOR TITLE V MODIFICATION

- Instructions -

San Joaquin Valley Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

ADMINISTRATIVE AMENDMENT MINOR MODIFICATION SIGNIFICANT MODIFICATION

COMPANY NAME: Liberty Packing Co. –The Morning Star Co.	FACILITY ID: N-1399
1. Type of Organization: Corporation Sole Ownership Government Partnership Utility	
2. Owner's Name: Chris Rufer	
3. Agent to the Owner: Wade Ingram	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial **applicable** 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.

For minor modifications, this application meets the criteria for use of minor permit modification procedures pursuant to District Rule 2520.

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

Wade Ingram 6/3/19

Signature of Responsible Official Date

Wade Ingram

Name of Responsible Official (please print)

Steam Generating Colleague

Title of Responsible Official (please print)