

NOTICE PRELIMINARY DECISION OF PART 4, & PART 5, *OFFSETS*, OF DISTRICT RULE 207,  
*REVIEW OF NEW OR MODIFIED SOURCES (NSR)*

Pursuant to District Rule 207, Section 6.9, the Monterey Bay Air Resources District (MBARD) solicits written comments to the preliminary decision to approve the issuance of Authority to Construct (ATC) APP-25-00105 to Monterey One Water (M1W) for the installation and operation of a new natural gas Mainspring Energy, Inc. linear generator (LGEN) with a rating of 250 kilowatts (KW) at the at the Regional Treatment Plant (RTP) located at 14811 Del Monte Boulevard in Marina.

MBARD Rule 207, *Review or New of Modified Sources (NSR)* shall apply to all new stationary sources and all modifications to existing stationary sources which, after construction or modification, emit or have the potential to emit any affected pollutants. Section 2.33.1 defines a modification to be any physical change, change in method of operation of or addition to any existing stationary source that would result in an actual or potential increase from any permit unit or sum of permit units under consideration as a result of the proposed modification. The emission increase analysis as demonstrated in MBARD's Evaluation Report demonstrates that the proposed modification is subject to NSR.

The facility-wide nitrogen oxides, (NO<sub>x</sub>), volatile organic compound (VOC), and carbon monoxide (CO), emissions are greater than or equal to the Offset threshold limits listed for Sections 4.2 and 5.3. As demonstrated in MBARD's Evaluation Report, the installation of the natural gas prime-use linear generator project meets the requirements of Part 4 and Part 5 of Rule 207. Hence, MBARD's preliminary decision to approve the project being proposed because the facility has the capability of complying with all applicable MBARD rules and regulations.

The permit application and MBARD's Evaluation Report are available for public inspection at MBARD's office at 24580 Silver Cloud Court in Monterey. A copy of the evaluation report can be found on MBARD's website at [www.mbard.org](http://www.mbard.org).

The public has an opportunity to review and comment on the proposed project. Under special circumstances, MBARD may hold a public hearing. Written comments must be submitted to the address below and be postmarked by Thursday, October 16, 2025.

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Air Resources District  
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Attention: Armando Jimenez

AVISO DE DECISIÓN PRELIMINAR DE LAS PARTES 4 Y 5, COMPENSACIONES, DE LA REGLA DE DISTRITO 207,  
REVISIÓN DE FUENTES NUEVAS O MODIFICADAS (NSR)

De conformidad con la Regla 207 del Distrito, Sección 6.9, el Distrito de Recursos del Aire de la Bahía de Monterey (MBARD) solicita comentarios por escrito sobre la decisión preliminar de aprobar la emisión de la Autorización para la Construcción (ATC) APP-25-00105 a Monterey One Water (M1W) para la instalación y operación de un nuevo Mainspring Energy, Inc. generador lineal usando gas natural con una capacidad de 250 kilowatts (KW). El equipo estará ubicado en 14811 Del Monte Blvd., Marina.

La Regla 207 de MBARD, Revisión o Nuevas Fuentes Modificadas (NSR), se aplicará a todas las fuentes estacionarias nuevas y a todas las modificaciones de las fuentes estacionarias existentes que, tras su construcción o modificación, emitan o puedan emitir contaminantes afectados. La Sección 2.33.1 define una modificación como cualquier cambio físico, cambio en el método de operación o adición a cualquier fuente estacionaria existente que resulte en un aumento real o potencial de cualquier unidad de permiso o suma de unidades de permiso consideradas como resultado de la modificación propuesta. El análisis del aumento de emisiones, como se muestra en el Informe de Evaluación de MBARD, demuestra que la modificación propuesta está sujeta a NSR.

Las emisiones de compuestos orgánicos volátiles (COV) en toda la instalación son superiores o iguales a los límites de compensación establecidos en las Secciones 4.2 y 5.3. Como se demuestra en el Informe de Evaluación de MBARD, el proyecto de generador lineal usando gas natural cumple con los requisitos de las Partes 4 y 5 de la Norma 207. Por lo tanto, se propone la decisión preliminar de MBARD de aprobar el proyecto, ya que la instalación tiene la capacidad de cumplir con todas las normas y regulaciones aplicables de MBARD.

La solicitud de permiso y el Informe de Evaluación de MBARD están disponibles para consulta pública en la oficina de MBARD, ubicada en Silver Cloud Court 24580, Monterey. Puede encontrar una copia del informe de evaluación en el sitio web de MBARD: [www.mbard.org](http://www.mbard.org).

El público tiene la oportunidad de revisar y comentar el proyecto propuesto. En circunstancias especiales, MBARD podrá celebrar una audiencia pública. Los comentarios por escrito deben enviarse a la dirección que figura a continuación y tener matasellos del jueves 16 de octubre de 2025.

Monterey Bay Air Resources District  
24580 Silver Cloud Court  
Monterey, CA 93940  
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(831) 647-9411



- Rule 218: Title V Operating Permits
- Rule 221: Federal Prevention of Significant Deterioration
- Rule 222: Federal Minor New Source Review
- Rule 300: District Fees
- Rule 400: Visible Emissions
- Rule 402: Nuisance
- Rule 403: Particulate Matter
- Rule 404: Sulfur Compounds & Nitrogen Oxides
- Rule 412: Sulfur Content of Fuels
- Rule 436: Title V: General Prohibitory Rule
- Rule 1000: Toxic Air Contaminants
- 40 CFR Part 60, Subpart JJJJ, NSPS For Stationary Compression Ignition Internal Combustion
- CA Health & Safety Code, Section 42301.6 – Public Notice

**III. EQUIPMENT DESIGN:**

The linear generator uses low-temperature air reaction of air and fuel to drive magnets through copper coils to efficiently produce electricity with near zero NO<sub>x</sub> emissions.

An operating cycle of the linear generator begins with compression of an air and fuel mixture that is driven by energy stored in the air springs from a previous cycle. Compression continues until a low temperature reaction occurs when the volume in the reaction section is at or near its minimum. This low-temperature reaction occurs uniformly throughout the section without burning or a flame, and, as a result, produces near-zero NO<sub>x</sub> emissions.

The linear generator enclosure is comprised of two linear generators cores that are mechanically and electrically independent and each have their own intake & exhaust systems and electrical systems. For this project, the linear generator has one gas line that feeds the entire linear generator.

**IV. EQUIPMENT DESCRIPTION:**

PRIME NATURAL GAS LINEAR GENERATOR (250 kWe):  
 Mainspring Energy Natural Gas Linear Generator, Model MSE-250, With A Maximum Output Rating Of 250 Kilowatt Electric (kWe) Equipped With An Air-To-Fuel Ratio Controller. Unit Equipped With An Oxidation Catalyst.

**V. EMISSIONS CALCULATIONS:**

The specifications for the linear generator are included in Table 1.

Table 1. Linear generator specifications. Includes both cores.

Maximum fuel consumption rate <sup>1</sup> (MMBtu/hr)	2.151886
Maximum fuel consumption rate <sup>2</sup> (MMScf/hr)	0.002109692
Natural gas high heating value (HHV, MMBtu/MMscf)	1,020
Natural gas F <sub>d</sub> fuel factor (scf/MMBtu)	8,710
Electrical generation (kWe)	250
Exhaust temperature (°F)	212
Exhaust flowrate <sup>3</sup> (ft <sup>3</sup> /min)	12,864
Exhaust stack height (ft)	9.5 (2 vertical stacks per unit)

Exhaust stack inner dimensions (rectangular stack):	57" x 16" (per stack)
Equivalent circular diameter <sup>4</sup> (inch):	34.1
Exhaust orientation (horizontal/vertical/angled)	Vertical, no cap

<sup>1</sup> Based on a fuel consumption of 1,075,943 Btu/hr per core module. One linear generator has 2 cores with total inlet fuel of 2,151,886 natural gas.

<sup>2</sup> Based on a natural gas high heating value (HHV) of 1,020 million British thermal unit per million standard cubic feet (MMBtu/MMscf) per AP42 Chapter 1.4 (7/1998).

<sup>3</sup> Exhaust flow rate provided by the applicant. Flow for the entire linear generator (two stacks).

<sup>4</sup> Per Lakes Environmental, equivalent diameter for a rectangular stack is as follows<sup>1</sup>:

$$D_{eq} = 2 \sqrt{\frac{L \times W}{\pi}} = 2 \sqrt{\frac{57" \times 16"}{\pi}} = 34.1"$$

The applicant has submitted emissions information for the linear generator. The application included emissions estimates using emission factors (EFs) based on the manufacturer's specifications from Mainspring Energy.

Table 2 shows the emissions requirements for non-emergency, electrical generator IC engines for NO<sub>x</sub>, VOC, CO, and PM and noted they are based on source testing conducted for other Mainspring Energy LGEN units. For SO<sub>x</sub>, the application references the South Coast Air Quality Management District's (SCAQMD) Combustion Default Emission Factors (revised 12/2024) for natural combustion – other equipment<sup>2</sup>.

Table 2. Natural gas linear generator emission factors.

Pollutant:	Emission factor (ppmvd @ 15% O <sub>2</sub> ) <sup>1</sup>	Emission factor (lb/MMscf) <sup>2</sup>
NO <sub>x</sub>	2.5	9.40
VOC	10	13.08
CO	12	27.45
SO <sub>x</sub>	-	0.6
PM=PM <sub>10</sub> =PM <sub>2.5</sub>	-	2.63

<sup>1</sup> Emission factors for NO<sub>x</sub>, VOC, CO, and PM based on Mainspring Energy manufacturer's specifications previous source testing. Emission factors converted to lb/MMscf as follows:

$$EF \left( \frac{lb}{MMscf} \right) = \frac{Conc, ppmvd}{1E06} \times \frac{Fd, scf}{MMBtu} \times \frac{lbmole}{385 scf} \times \frac{Mol. weight, lb}{lbmole} \times \frac{Nat. gas HHV, MMBtu}{MMscf} \times \frac{20.9}{20.9 - O_2\%}$$

<sup>2</sup> Emission factors for SO<sub>x</sub> based on SCAQMD's Combustion Default Emission Factors – Other Combustion.

Table 3 shows the estimated emissions from the proposed linear generator (both cores).

Table 3. Linear generator potential to emit emissions (includes both cores).

Pollutant:	Heat input (MMscf/hr)	EF (lb/MMScf)	Daily emissions (lb/day)	Annual emissions (ton/yr) <sup>1</sup>
NO <sub>x</sub>	0.0021097	9.4	0.48	0.09
VOC	0.0021097	13.08	0.66	0.12
CO	0.0021097	27.45	1.39	0.25

<sup>1</sup> Lakes Environmental Software. Volume 8, Issue 11. Monthly Modeling Tip: Representing Rectangular Stacks. [online] Available at: <https://www.weblakes.com/Newsletter/2007/Nov2007.html> (accessed 8/28/25).

<sup>2</sup> South Coast Air Quality Management District. Combustion Default Emission Factors (Revised December 2024). [https://www.aqmd.gov/docs/default-source/planning/annual-emission-reporting/combustion-default-emission-factors-2024.pdf?sfvrsn=9c358361\\_9](https://www.aqmd.gov/docs/default-source/planning/annual-emission-reporting/combustion-default-emission-factors-2024.pdf?sfvrsn=9c358361_9)

Pollutant:	Heat input (MMscf/hr)	EF (lb/MMScf)	Daily emissions (lb/day)	Annual emissions (ton/yr) <sup>1</sup>
SO <sub>x</sub>	0.0021097	0.6	0.03	0.01
PM	0.0021097	2.63	0.13	0.02
PM <sub>10</sub> <sup>2</sup>			0.13	0.02
PM <sub>2.5</sub> <sup>2</sup>			0.13	0.02

<sup>1</sup> Annual emissions based upon proposed operating schedule of 24 hours per day and 365 days per year (8,760 hours per year).

<sup>2</sup> PM<sub>10</sub> and PM<sub>2.5</sub> fractions estimated using [CARB's CEIDARS particulate matter size profile database \(3/2021\)](#). For stationary IC engines-gas (PM Profile # 123): PM<sub>10</sub> = 0.994 PM & PM<sub>2.5</sub> = 0.992 PM.

**VI. RULE COMPLIANCE:**

It is noted that the Mainspring Energy, Inc. previously (under application APP-22-00012) submitted an applicability request to EPS regarding NSPS Subpart JJJJ and Mainspring linear generators. EPA response letter dated January 19, 2021, noted that EPA agreed with Mainspring that the linear generator technology is novel with notable differences from traditional internal combustion engines. Notably, the linear generator relies upon compression of a fuel/air mixture that continues until a low-temperature reaction occurs without burning or a flame, resulting in NO<sub>x</sub> emissions well below the NO<sub>x</sub> emissions limits in the engine NSPS. Further, we understand that your position is that the design of the Mainspring linear generator does not produce mechanical work that is taken off the generator, but rather, converts chemical energy into kinetic energy to directly produce electrical energy. However, EPA did not determine whether Mainspring's linear generator is covered by either of the NSPS for stationary internal combustion engines. Thus, the Monterey Bay Air Resources District (MBARD) will consider the linear generators to be subject to the requirements of NSPS Subpart JJJJ, but per Mainspring Energy, Inc. request, the Rule reference will not be listed on the ATC conditions. A copy of the EPA letter is saved on the permit file.

The following MBARD rules apply to the operation as specified:

**MBARD Rule 200 – Permits Required**

The purpose of this Rule is to identify when MBARD permits are issued. The provisions of this Rule shall apply to any person who builds, erects, alters, or replaces any article, machine, equipment or other contrivance which may cause the issuance of air contaminants or the use of which may eliminate or reduce or control the issuance of air contaminants.

Pursuant to Section 3.1, person shall build, erect, alter, or replace any article, machine, equipment or other contrivance which may cause the issuance of air contaminants or the use of which may eliminate or reduce or control the issuance of air contaminants unless the facility owner or operator has obtained a separate written Authority to Construct for each permit unit from the Air Pollution Control Officer. An Authority to Construct shall remain in effect until the Permit to Operate the equipment for which the application was filed is granted or denied or the application is cancelled.

Exceptions to MBARD Rule 200 are identified in MBARD Rule 201.

**MBARD Rule 207 – Review of New or Modified Sources (as adopted on 4/20/11)**

This Rule provides for the review of new and modified stationary air pollution sources to meet requirements for the review of new and modified stationary sources (NSR) and for the Prevention of Significant Deterioration (PSD), under the provisions of the federal Clean Air Act; and requirements for NSR under the provisions of the California Clean Air Act. The intent of this Rule is to ensure that the most stringent requirements of these programs shall be applied.

This Rule shall apply to all new stationary sources and all modifications to existing stationary sources which, after construction or modification, emit or have the potential to emit any affected pollutants. Thus, the proposed project is subject to the requirements of Rule 207.

*Federal Best Available Control Technology (BACT) Analysis:*

Pursuant to Section 4.1.1, an applicant shall apply BACT to a new stationary source or modification of an existing source, which has the potential to emit greater than or equal to any one of the affected pollutant levels listed in Table 4.1.1 or a modification of an existing stationary source which has the potential to result in a new emissions increase, as defined in Section 2.37, occurring after October 20, 2010 for PM<sub>2.5</sub> or after August 19, 1983 for PM<sub>10</sub> or after July 15, 1976 for any other affected pollutant.

Table 4 shows the emissions from the proposed emergency generator set at the Regional Treatment Plant, the facility-wide new emissions and the Federal BACT thresholds of Table 4.1.1.

Table 4. New emissions increases.

Permit No.:	NO <sub>x</sub> (lb/day)	VOC (lb/day)	CO (lb/day)	SO <sub>x</sub> (lb/day)	PM (lb/day)	PM <sub>10</sub> (lb/day)	PM <sub>2.5</sub> (lb/day)
7945B Emer. Tier 0 diesel eng-gen - 449 HP <sup>1,2,5</sup> (1997)	221.5	3.8	60.0	0.12	18.0	17.28	16.87
11806A Emer. Tier 2 diesel eng-gen - 2,220 HP <sup>1,2,5</sup> (2003)	809.8	9.98	152.6	0.62	41.1	39.46	38.51
14883A Port. Emer. Tier 3 diesel eng-gen set - 98 HP <sup>1,2</sup> (2011)	10.67	0.57	4.61	0.02	0.67	0.64	0.63
16163A AST GDF <sup>3</sup> (1984)							
GNR-0017433A Port. sewer pump Tier 3 diesel eng. - 84 HP <sup>1,2</sup> (2017)	13.85	0.73	3.98	0.02	1.09	1.05	1.02
GNR-0017895 Advanced water purification facility <sup>4</sup>							
GNR-0017896 Advanced water demonstration purification facility <sup>4</sup>							
GNR-0018026 Fume hood (1990)		1.1					
GNR-0018242 Emer. Tier 4F diesel eng-gen - 65 HP <sup>1</sup> (2016)	9.52	0.52	0.24	0.02	0.03	0.03	0.03
GNR-0018289/MOD-21-00054 Wastewater treat. & reclamation (1982)		78.19					
GNR-0018290 Port Tier 4F diesel eng-pump set - 61 HP <sup>1</sup> (2019)	4.29	0.02	0.11	0.01	0.02	0.02	0.02
GNR-0018362 Digester gas gen. set #1 <sup>1,5</sup> (1984)	57.6	33.6	168	14.64	1.41	1.41	1.41
GNR-0018363 Digester gas gen. set #2 <sup>1,5</sup> (1992)	57.6	33.6	168	14.64	1.41	1.41	1.41
GNR-0018364 Digester gas gen. set #3 <sup>1,5</sup> (1992)	57.6	33.6	168	14.64	1.41	1.41	1.41

Permit No.:	NO <sub>x</sub> (lb/day)	VOC (lb/day)	CO (lb/day)	SO <sub>x</sub> (lb/day)	PM (lb/day)	PM <sub>10</sub> (lb/day)	PM <sub>2.5</sub> (lb/day)
GNR-0018365 Dig. gas flare <sup>1,5</sup> (1987)	28.5	38.92	155.68	34.31	7.94	7.94	7.94
GNR-0018366 Boiler nat/digester gas 8.369MMBtu/hr <sup>1,5,6</sup> (1982)	19.7	1.1	16.5	0.1	1.5	1.5	1.5
GNR-0018367 Port. Tier 3 diesel eng-sludge lagoon barge low-use - 202 HP <sup>1,2,5</sup> (1995)	27.87	0.85	14.31	0.07	1.17	1.12	1.1
GNR-0018368 Port emer. gen set rated @ 1,114 HP <sup>1,2,5</sup> (2002)	339.79	2.36	40.05	0.32	5.48	5.26	5.13
PTO-23-00016 Port prime sewer pump rated @ 74 HP (2023)	4.99	0.26	0.73	0.01	0.01	0.01	0.01
APP-25-00014 Co-digestion food waste processing-carbon filters (2025)		8.38					
APP-25-00095 Emer. nat. gas gen. rated - 132 HP (2025)	1.26	0.21	1.47	0.02	0.30	0.29	0.29
APP-25-00105 Linear generator - 250 KW (2025)	0.48	0.66	1.39	0.03	0.13	0.13	0.13
Total:	1,665.02	248.45	955.67	79.59	81.67	77.46	2.13
Table 4.1.1 BACT threshold:	150	150	550	150	150	82	54.79

<sup>1</sup> PM<sub>10</sub> and PM<sub>2.5</sub> fractions estimated using CARB’s CEIDARS particulate matter size profile database (3/2017). For diesel IC engines: PM<sub>10</sub> = 0.96 PM & PM<sub>2.5</sub> = 0.937 PM. For nat. gas boilers: PM<sub>10</sub> = 1.0 PM & PM<sub>2.5</sub> = 1.0 PM. For gaseous material combustion (digester gas flare and engines): PM<sub>10</sub> = 1.0 PM & PM<sub>2.5</sub> = 1.0 PM.

<sup>2</sup> SO<sub>x</sub> emissions based upon low-sulfur diesel fuel of 15 ppm, or 2.5E-04 lb SO<sub>x</sub>/gal of diesel, and the fuel consumption rate of each diesel engine. PTO 7945B max fuel consumption rate is 19.3 gal/hr. PTO 11806A max fuel consumption rate is 103.6 gal/hr. PTO GNR-0018367 max fuel consumption rate is 12 gal/hr. Sample calculation for PTO GNR-0018367: [(12 gal/hr) (24 hr/day) (2.5E-04 lb SO<sub>x</sub>/gal of diesel) = 0.07 lb SO<sub>x</sub>/day].

<sup>3</sup> Pursuant to Rule 207, Section 1.3.1, gasoline storage and dispensing equipment subject to Rules 418 and Rule 1002 shall be exempt from the requirements of Rule 207. The gas station is subject to Rules 418 and 1002 and is exempt from Rule 207.

<sup>4</sup> The advanced water purification facilities are not a source of criteria pollutants. The facilities are permitted for use of ozone generators.

<sup>5</sup> Equipment pre-dates NSR PM<sub>2.5</sub> applicability date of October 20, 2010.

<sup>6</sup> Equipment pre-dates NSR PM<sub>10</sub> applicability date of August 19, 1983.

Table 4 shows that the facility’s new emission increases exceed the NO<sub>x</sub>, VOC, and CO BACT thresholds of Rule 207, Table 4.1.1.

The South Coast Air Quality Management District’s (SCAQMD) BACT Part B: “BACT Determinations for Major Polluting Facilities” contains an approved BACT determination for natural gas fired linear generators. A copy of the BACT determination for application no. 625886-625889 dated February 2, 2024<sup>3</sup>, is saved on the permit file. Although, the BACT determination was dated February 2, 2024, the determination notes that the Permit to Construct issuance date was 6/15/21 and the Permit to Operate issuance date was 4/20/2022. SCAQMD has also adopted Rule 1110.3 *Emissions From Linear Generators* on November 3, 2023, that sets emission limits for linear generators fueled solely by natural gas.

<sup>3</sup> SCAQMD. South Coast AQMD BACT Determination for Application 625886-625889 (2/2/2024). [https://www.aqmd.gov/docs/default-source/bact/bact-guidelines/bact-guidelines-2024/part-b---mainspring\\_625886\\_lineargenerator.pdf](https://www.aqmd.gov/docs/default-source/bact/bact-guidelines/bact-guidelines-2024/part-b---mainspring_625886_lineargenerator.pdf).

Table 5 shows the BACT determination for non-emergency, electrical generating, linear generators using an oxidation catalyst, the SCAQMD Rule 1110.3 emission limits, and the proposed emission factors. As shown in the Table, the proposed linear generator meets SCAQMD emission requirements of Rule 1110.3 and the BACT/LAER determination.

Table 5. SCAQMD BACT determination for natural gas non-emergency linear generator.

Pollutant	BACT determination emission limit (ppmv @ 15% O <sub>2</sub> )	SCAMQD Rule 1110.3 emission limits (ppmv @ 15% O <sub>2</sub> )	Proposed emission factor (ppmv @ 15% O <sub>2</sub> )	BACT compliance
NO <sub>x</sub>	2.5	2.5	2.5	Yes
VOC	25	10	10	Yes
CO	12	12	12	Yes

*California BACT analysis*

Pursuant to Section 5.2, BACT shall be required for any new or modified permit unit with a potential to emit 25 pounds per day (lb/day) or more of VOCs or NO<sub>x</sub>. **Table 6 shows that the proposed project does not trigger the CA BACT thresholds of Section 5.2.**

Table 6. California BACT determination.

Pollutant	BACT threshold (lb/day)	Project emissions (lb/day)	BACT triggered?
NO <sub>x</sub>	25	0.48	No
VOC	25	0.66	No

*Federal Offset requirements*

Pursuant to Rule 207, Section 4.2, Offsets are required for any new or modified source with net emissions increases equal to exceeding the thresholds of Table 4.2.2. Pursuant to Section 4.2.6, increases in emissions shall be determined in accordance with the calculation methods described in Subsections 2.36.1, 2.36.2, 2.36.3, Sections 7.3, 7.4, and 7.5 of this Rule.

Pursuant to Section 2.36.1, a net emissions increase is the sum of all increases in potential emissions of any given pollutant except PM<sub>2.5</sub> or PM<sub>10</sub> from a new or modified stationary source occurring since July 15, 1976, minus reductions in emissions of that pollutant at the stationary source occurring since July 15, 1976. Pursuant to Section 2.36.3, the sum of all increases in potential emissions of PM<sub>10</sub>, from a new or modified stationary source occurring since August 19, 1983, minus any reduction in emissions of PM<sub>10</sub> at the stationary source occurring since August 19, 1983.

Table 7 shows the net emissions increases at the Regional Treatment Plant and the offset thresholds of Table 4.2.2.

Table 7. Net emissions increases at the proposed locations.

Permit/Application no.:	NO <sub>x</sub> <sup>1</sup> (lb/day)	VOC (lb/day)	CO (lb/day)	SO <sub>x</sub> (lb/day)	PM (lb/day)	PM <sub>10</sub> (lb/day)
7945B Emer. ICE gen. rated @ 449 HP <sup>2</sup> (1997)						
11806A Emer. ICE gen. rated @ 2,220 HP <sup>2</sup> (2003)						
14883A Port. Emer. Gen. set rated at 98 HP <sup>2</sup> (2011)						

Permit/Application no.:	NO <sub>x</sub> <sup>1</sup> (lb/day)	VOC (lb/day)	CO (lb/day)	SO <sub>x</sub> (lb/day)	PM (lb/day)	PM <sub>10</sub> (lb/day)
<b>16163A AST GDF<sup>3</sup> (1984)</b>						
GNR-0017433A Port. sewer pump eng. rated @ 84 HP <sup>4,5</sup> (2017)	13.85	0.73	3.98	0.02	1.09	1.05
GNR-0017895 Advanced water purification facility <sup>6</sup>						
GNR-0017896 Advanced water demonstration purification facility <sup>6</sup>						
GNR-0018026 Fume hood (1990)		1.1				
<b>GNR-0018242 Emer. ICE gen. set rated @ 65 HP<sup>2</sup> (2016)</b>						
GNR-0018289/MOD-21-00054 Wastewater treat. & reclamation (1982) <sup>7</sup>		78.19				
GNR-0018290 Portable low-use ICE engine- pump set rated @ 61 HP <sup>4,5</sup> (2019)	4.29	0.02	0.11	0.01	0.02	0.02
<b>GNR-0018362 Digester gas gen. set #1<sup>4</sup> (1984)</b>	<b>57.6</b>	<b>33.6</b>	<b>168</b>	<b>14.64</b>	<b>1.41</b>	<b>1.41</b>
<b>GNR-0018363 Digester gas gen. set #2<sup>4</sup> (1992)</b>	<b>57.6</b>	<b>33.6</b>	<b>168</b>	<b>14.64</b>	<b>1.41</b>	<b>1.41</b>
<b>GNR-0018364 Digester gas gen. set #3<sup>4</sup> (1992)</b>	<b>57.6</b>	<b>33.6</b>	<b>168</b>	<b>14.64</b>	<b>1.41</b>	<b>1.41</b>
<b>GNR-0018365 Dig. gas flare<sup>4</sup> (1987)</b>	<b>28.5</b>	<b>38.92</b>	<b>155.68</b>	<b>34.31</b>	<b>7.94</b>	<b>7.94</b>
<b>GNR-0018366 Boiler nat. gas fired<sup>4,9</sup> (1982)</b>	<b>19.7</b>	<b>1.1</b>	<b>16.5</b>	<b>0.1</b>	<b>1.5</b>	<b>1.5</b>
GNR-0018367 Port. sludge lagoon barge rated @ 202 HP <sup>4,5</sup> (1995)	27.87	0.85	14.31	0.07	1.17	1.12
<b>GNR-0018368 Port emer. gen set rated @ 1,114 HP<sup>2</sup> (2002)</b>						
PTO-23-00016 Port prime sewer pump rated @ 74 HP <sup>8</sup> (2023)	4.99	0.26	0.73	0.01	0.01	0.01
APP-25-00014 Co-digestion food waste processing-carbon filters (2025)		8.38				
APP-25-00095 Emer. nat. gas gen. rated - 132 HP <sup>2</sup> (2025)						
<b>APP-25-00105 Linear generator - 250 KW (2025)</b>	<b>0.48</b>	<b>0.66</b>	<b>1.39</b>	<b>0.03</b>	<b>0.13</b>	<b>0.13</b>
Total:	272.48	231.01	696.70	78.47	16.09	14.50
Rule 207: Table 4.2.2 Offset Threshold:	150	150	550	150	150	82

<sup>1</sup> The facility is permitted with a daily NO<sub>x</sub> emission limit of 221 pounds per day (40.33 tons per year) from sources subject to offset requirements. The facility has been subject to Offsets since the initial permitting of the facility. The sources highlighted in **Bold** are the sources subject to the facility daily NO<sub>x</sub> limit of 221 lbs/day. The facility must keep records to demonstrate the daily emissions from all the equipment, except for equipment subject to the offset exemptions of Rule 207, does not

- exceed 221 pounds per day.
- <sup>2</sup> Pursuant to Rule 207, Section 1.3.3, the offset requirements of Sections 4.2 and 5.3 do not apply to emergency internal combustion engine that is either only used for emergency power when normal power line services fail, or are used only for the emergency pumping of water, and are operated less than 60 hours per year for testing and exercise.
  - <sup>3</sup> Pursuant to Rule 207, Section 1.3.1, gasoline storage and dispensing equipment subject to Rules 418 and Rule 1002 shall be exempt from the requirements of Rule 207. The gas station is subject to Rules 418 and 1002 and is exempt from Rule 207.
  - <sup>4</sup> PM<sub>10</sub> and PM<sub>2.5</sub> fractions estimated using CARB’s CEIDARS particulate matter size profile database (3/2017). For diesel IC engines: PM<sub>10</sub> = 0.96 PM & PM<sub>2.5</sub> = 0.937 PM. For nat. gas boilers: PM<sub>10</sub> = 1.0 PM & PM<sub>2.5</sub> = 1.0 PM. For gaseous material combustion (digester gas flare and engines): PM<sub>10</sub> = 1.0 PM & PM<sub>2.5</sub> = 1.0 PM.
  - <sup>5</sup> SO<sub>x</sub> emissions based upon low-sulfur diesel fuel of 15 ppm, or 2.5E-04 lb SO<sub>x</sub>/gal of diesel, and the fuel consumption rate of each diesel engine. PTO 7945B max fuel consumption rate is 19.3 gal/hr. PTO 11806A max fuel consumption rate is 103.6 gal/hr. PTO GNR-0018367 max fuel consumption rate is 12 gal/hr. Sample calculation for PTO GNR-0018367: [(12 gal/hr) (24 hr/day) (2.5E-04 lb SO<sub>x</sub>/gal of diesel) = 0.07 lb SO<sub>x</sub>/day].
  - <sup>6</sup> The advanced water purification facilities are not a source of criteria pollutants. The facilities are permitted for the use of ozone generators.
  - <sup>7</sup> Prior to the issuance of ATC GNR-017527 for the modification of M1W’s Wastewater Treatment & Reclamation Plant on March 2020, the emissions from the treatment plant were not estimated. Per California Health & Safety Code Section 42301.2, the use of new emission factors represented a change in technique to quantify the wastewater treatment plant emissions and emission offsets were not required. Accordingly, the baseline emissions as of March 2020 for VOC emissions equated to 221.71 pounds per day.
  - <sup>8</sup> The facility has stated that when the engine-sewer pump operates at RTP, the facility will keep the emissions within the existing facility-wide limit of 221 pounds per day for NO<sub>x</sub>, which ensures the emissions will not increase.
  - <sup>9</sup> Pre-dates NSR PM<sub>10</sub> applicability date of August 19, 1983.

Table 7 shows that the facility exceeds the Offset thresholds of Table 4.2.2 for NO<sub>x</sub>, VOC and CO.

Per Rule 207, Section 4.2.5, the amount of offsets obtained shall be at least equal to the net emissions increase from the proposed new source or modification. Table 8 shows the potential to emit (PTE) emissions increases for the non-emergency natural gas linear generator on a quarterly basis.

Table 8. Non-emergency natural gas linear generator quarterly emissions.

Pollutant	1 <sup>st</sup> Qtr (ton/Qtr.)	2 <sup>nd</sup> Qtr (ton/Qtr.)	3 <sup>rd</sup> Qtr (ton/Qtr.)	4 <sup>th</sup> Qtr (ton/Qtr.)
NO <sub>x</sub>	0.02	0.02	0.02	0.02
VOC	0.03	0.03	0.03	0.03
CO	0.06	0.06	0.06	0.06

Table 8 shows that the NO<sub>x</sub>, VOC, and CO emission increases from the proposed project result in total increase of 0.02, 0.03, and 0.06 tons per quarter respectively for quarters 1 through quarter 4.

MIW Contemporaneous Projects at the Regional Treatment Plant (RTP)

Is noted that M1W was issued Authority to Construct (ATC) APP-25-00014 for the co-digestion project/food waste processing facility on August 4, 2025, and the project was subject to the offset requirements of Rule 207. Thus, the co-digestion project/food waste processing facility emissions increases will be added to the emission increases to the new project. Table 9 shows the potential to emit (PTE) emissions increases for the co-digestion project/food waste processing facility.

Table 9. Co-digestion project/food waste processing quarterly VOC emissions.

Pollutant	1 <sup>st</sup> Qtr (ton/Qtr.)	2 <sup>nd</sup> Qtr (ton/Qtr.)	3 <sup>rd</sup> Qtr (ton/Qtr.)	4 <sup>th</sup> Qtr (ton/Qtr.)
VOC	0.38	0.38	0.39	0.39

Table 10 shows the contemporaneous emissions for the facility from the last five years, that include the natural gas linear generator and the co-digestion project/food waste processing facility.

Table 10. Contemporaneous emissions from natural gas linear generator + co-digestion project/food waste processing facility.

Pollutant	1 <sup>st</sup> Qtr (ton/Qtr.)	2 <sup>nd</sup> Qtr (ton/Qtr.)	3 <sup>rd</sup> Qtr (ton/Qtr.)	4 <sup>th</sup> Qtr (ton/Qtr.)
NO <sub>x</sub>	0.02	0.02	0.02	0.02
VOC	0.41	0.41	0.42	0.42
CO	0.06	0.06	0.06	0.06

The quarterly emission increases must be offset by emission reductions. MBARD’s Policy for Rounding, dated April 18, 2017, for determining the amount of offsets required in accordance with MBARD Rule 207 is to round up to the tenth place and to the nearest whole number. For example, the given number of decimal places is 0 so a quarterly offset amount of 0.42 tons rounds to 0. Thus, for this project, no offsets are required.

*CA Offset requirements*

Pursuant to Section 5.3.1, any new or modified stationary source with a potential to emit 137 pounds per day or more of VOCs or NO<sub>x</sub> shall be required to provide offsets at the ratios specified in Section 4.3. Pursuant to Section 2.38, for the purpose of Part 5 of this Rule (California Clean Air Act), the applicability date shall be April 21, 1993. Table 11 shows the facility-wide potential emissions, the emissions from the proposed project under application APP-25-00105, and the CA offset thresholds of Section 5.3.1.

Table 11. Facility-wide potential to emit emissions and CA offset determination.

Permit No.:	NO <sub>x</sub> <sup>1</sup> (lb/day)	VOC (lb/day)
7945B Emer. Tier 0 diesel eng-gen - 449 HP <sup>2</sup> (1997)		
11806A Emer. Tier 2 diesel eng-gen - 2,220 HP <sup>2</sup> (2003)		
14883A Port. Emer. Tier 3 diesel eng-gen set - 98 HP <sup>2</sup> (2011)		
16163A AST GDF <sup>3</sup> (1984)		
GNR-0017433A Port. sewer pump Tier 3 diesel eng. - 84 HP (2017)	13.85	0.73
GNR-0017895 Advanced water purification facility <sup>4</sup>		
GNR-0017896 Advanced water demonstration purification facility <sup>4</sup>		
GNR-0018026 Fume hood <sup>5</sup> (1990)		
GNR-0018242 Emer. Tier 4F diesel eng-gen - 65 HP <sup>2</sup> (2016)		
GNR-0018289/MOD-21-00054 Wastewater treat. & reclamation <sup>5</sup> (1982)		
GNR-0018290 Port Tier 4F diesel eng-pump set - 61 HP (2019)	4.29	0.02
GNR-0018362 Digester gas gen. set #1 <sup>5</sup> (1984)		
GNR-0018363 Digester gas gen. set #2 <sup>5</sup> (1992)		
GNR-0018364 Digester gas gen. set #3 <sup>5</sup> (1992)		
GNR-0018365 Dig. gas flare <sup>5</sup> (1987)		
GNR-0018366 Boiler nat/digester gas 8.369MMBtu/hr <sup>5</sup> (1982)		
GNR-0018367A Port. Tier 3 diesel eng-sludge lagoon barge low-use - 202 HP (1995)	27.87	0.85
GNR-0018368 Port emer. Tier 1 diesel eng-gen - 1,114 HP <sup>2</sup> (2002)		
PTO-23-00016 Port prime Tier 4F diesel eng-sewer pump - 74 HP (2023)	4.99	0.26
APP-25-00014 Co-digestion food waste processing-carbon filters (2025)		8.38
APP-25-00095 Emer. nat. gas gen. rated - 132 HP <sup>2</sup> (2025)		
APP-25-00105 Linear generator - 250 KW (2025)	0.48	0.66
Total	51.48	10.90
Section 5.3.1 Offset thresholds	137	137

<sup>1</sup> The facility is permitted with a daily NO<sub>x</sub> emission limit of 221 pounds per day (40.33 tons per year) from sources subject to offset requirements. The facility has been subject to Offsets since the initial permitting of the facility. **The sources highlighted in Bold are the sources subject to the facility daily NO<sub>x</sub> limit of 221 lbs/day.** The facility must keep records to demonstrate the daily emissions from all the equipment, except for equipment subject to the offset exemptions of Rule 207, does not exceed

221 pounds per day.

<sup>2</sup> Pursuant to Rule 207, Section 1.3.3, the offset requirements of Sections 4.2 and 5.3 do not apply to emergency internal combustion engine that is either only used for emergency power when normal power line services fail, or are used only for the emergency pumping of water, and are operated less than 60 hours per year for testing and exercise.

<sup>3</sup> Pursuant to Rule 207, Section 1.3.1, gasoline storage and dispensing equipment subject to Rules 418 and Rule 1002 shall be exempt from the requirements of Rule 207. The gas station is subject to Rules 418 and 1002 and is exempt from Rule 207.

<sup>4</sup> The advanced water purification facilities are not a source of criteria pollutants. The facilities are permitted for the use of ozone generators.

<sup>5</sup> Pursuant to Rule 207, Section 2.38, for the purposes of Part 5 of this rule, which includes CA Offset requirements, the applicability date shall be April 21, 1993. Thus, equipment installed prior to April 21, 1992, is excluded.

Table 11 shows that the facility-wide emissions do not exceed the CA offset threshold of Section 5.3.1.

### ***Visibility, soils, and vegetation analysis:***

Section 3.2 requires the applicant to provide MBARD with an analysis of impairment to visibility, soils and vegetation. MBARD does not find it necessary to determine the negligible effect emissions from this modification will have on visibility, soils and vegetation.

### ***Ambient air quality standards (AAQS) and emission increments:***

Section 3.3, Ambient Air Quality Standards and Emission Increments, prohibits emissions from causing or contributing to a violation of an ambient air quality standard or exceeding any air quality increment. Moreover, Section 6.6, Air Quality Increment Analysis, prohibits a source which is subject to Section 4.2, Offset Requirements, from exceeding 50% of the remaining emissions increment.

The proposed linear generator has the potential to emit NO<sub>x</sub>, VOC, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The proposed units do not emit H<sub>2</sub>S, lead, sulfates, or vinyl chloride.

MBARD will follow the San Joaquin Valley Air Pollution Control District's (SJVAPCD) District Policy APR 1925 Policy for District Rule 2201 Ambient Air Quality Analysis (AAQA) adopted in April 2014 and revised on May 6, 2024<sup>4</sup>. APR 1925 guidance documents suggests the analysis begins with the Level 1 approach, and only proceeds to the next level if necessary. Level 1 approach is as follows:

- For each averaging period, the maximum modeled concentration for each source and receptor combination is summed to produce a worst-case concentration. Please note that the maximum modeled concentrations for each pollutant/averaging period at each receptor are the sum of the maximum concentrations from each source without respect to the time of occurrence.
- Averaging Periods: For all AAQA analyses, the appropriate averaging periods must be selected for all project pollutants with known ambient air quality standards. It is recommended that the 1, 3, 8, 24, and Period averaging periods be selected at a minimum. MBARD will use the annual averaging instead of Period averaging.
- Receptors: A telescoping grid of receptors should be used around the plant/facility boundary such that the maximum concentration would be expected to be contained within the grid system.
- Step 1 requires that the background concentrations for each pollutant and averaging period combination be added to the corresponding maximum modeled concentrations. The sum of these values is then compared to the corresponding ambient air quality standard. If the project does not cause an exceedance of any ambient air quality standard then the analysis is complete and no further action is required. If the project causes an exceedance of an ambient air quality standard, then analysis should proceed to Step 2.

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<sup>4</sup> San Joaquin Valley Air Pollution Control District. District Policy APR 1925 Policy for District Rule 2201 AAQA Modeling (4/2014 and revised 5/6/2024). <https://www.valleyair.org/media/341fy4sn/apr-1925-rule-2201-aaqa-modeling-may-2024.pdf>.

MBARD used the Lakes Environmental AERMOD dispersion model to get the maximum concentration for the linear generator. The linear generator has two rectangular exhaust stacks at each side of the unit enclosure as shown in Figure 1.

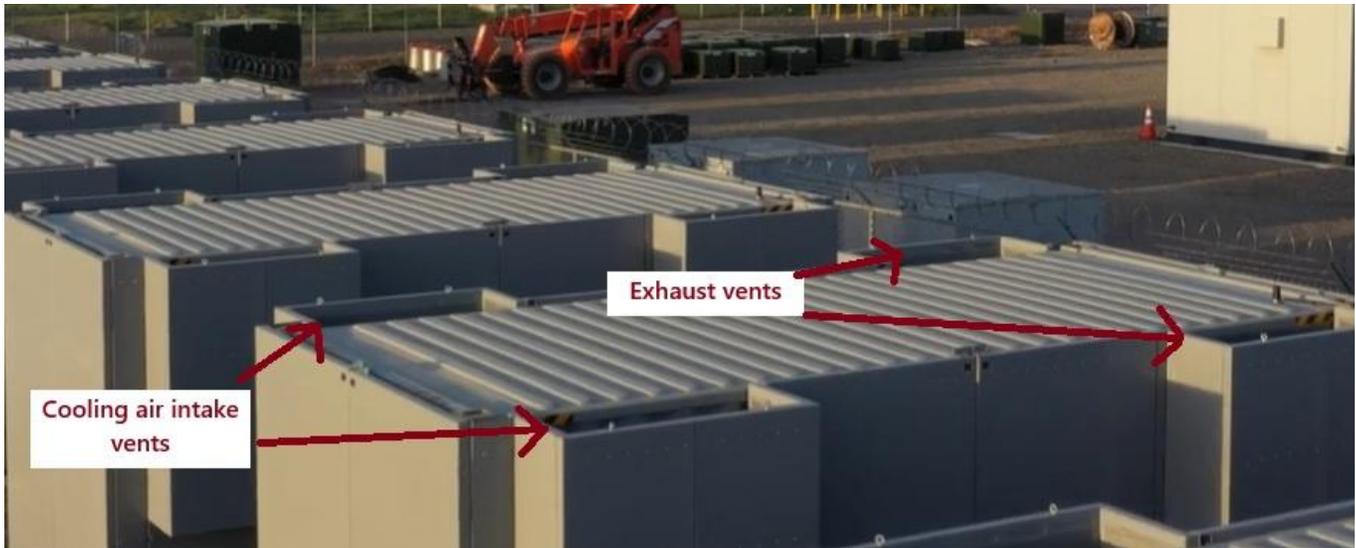


Figure 1. Linear generator intake/exhaust vents.

Table 12 and Table 13 show the source pathway inputs used in the AERMOD point source model for the linear generator exhaust vents.

Table 12. AERMOD inputs (exhaust vent 1).

Source ID <sup>1</sup>	1
Source Type <sup>2</sup>	Point
X-Coordinate	609976.48
Y-Coordinate	4062865.34
Base elevation <sup>3</sup>	104.692 feet
Release height	9.5 feet
Emissions rate	0.5 g/s
Gas exit temperature	212 °F
Stack inside diameter	34.1 inch
Gas exit flow rate	6,432 ft <sup>3</sup> /min
Met station elevation (Monterey Airport) <sup>4</sup>	50.3 meters

<sup>1</sup> Source ID 1 used because AERMOD results will be loaded into CARB’s ADMRT tool where source ID will be identified as 1.

<sup>2</sup> Since the paint booth is equipped with a vertical exhaust, a point source was selected.

<sup>3</sup> Base elevation was uploaded automatically when running AERMAP on AERMOD.

<sup>4</sup> Weather data used from the Monterey Airport for the period of 2015-2019. The met station elevation listed as 50.3 meters, see following link: <https://ww2.arb.ca.gov/resources/documents/harp-aermod-meteorological-files>.

Table 13. AERMOD inputs (exhaust vent 2).

Source ID	2
Source Type	Point
X-Coordinate	609978.48
Y-Coordinate	4062865.34
Base elevation	104.495 feet
Release height	9.5 feet

Emissions rate	0.5 g/s
Gas exit temperature	212 °F
Stack inside diameter	34.1 inch
Gas exit flow rate	6,432 ft <sup>3</sup> /min
Met station elevation (Monterey Airport)	50.3 meters

Table 14 shows the heights for the buildings next to the linear generator that were considered for building downwash. Figure 2 shows a picture of the buildings.

Table 14. AERMOD Building downwash inputs.

Building A height	8 meter
Building B height	4 meter
Building C height	3.35 meter
Building D height	3 meter

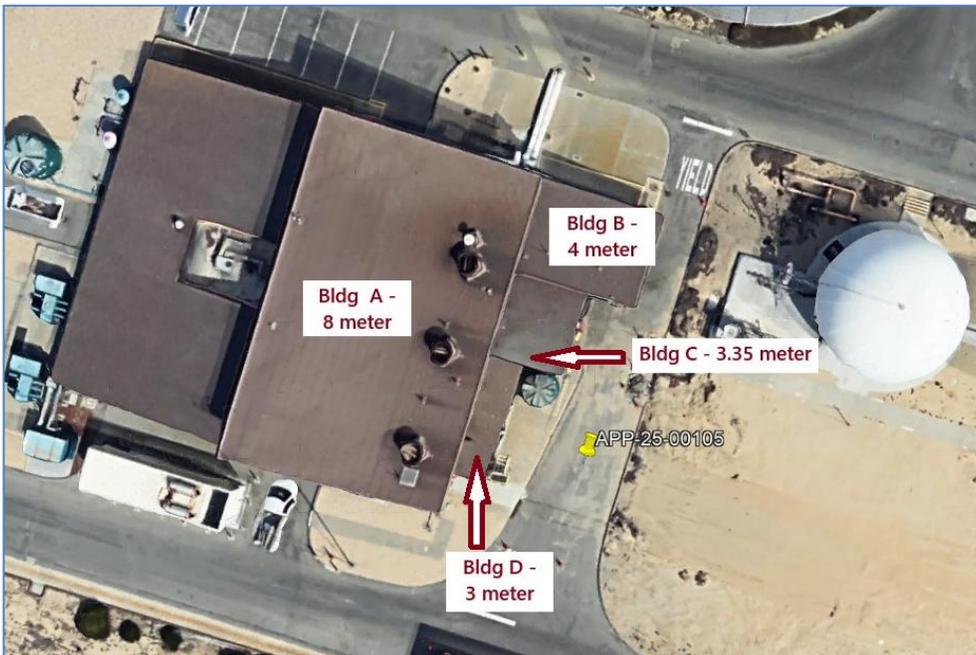


Figure 2. Buildings considered for building downwash.

Table 15 shows the maximum concentrations from the AERMOD dispersion model. The AERMOD model input files and results are included in Attachment 1. Table 16 shows the emissions increase of the proposed project.

Table 15. Air dispersion modeling (AERMOD) maximum concentrations.

Averaging period	Exhaust 1 &2 – max concentration (µg/m <sup>3</sup> / g/s)	x-coordinate	y-coordinate
1-hr	442.42092	609725.99	4062764.71
3-hr	380.52148	609725.99	4062764.71
8-hr	258.62932	609679.19	4062851.70
24-hr	98.67075	609667.48	4062873.45
Annual	17.53747	609667.48	4062873.45

Table 16. Emissions increase.

Pollutant	Exhaust 1 & 2 PTE project emissions (lb/day)	Exhaust 1 & 2 PTE project emissions (lb/hr)	Exhaust 1 & 2 PTE project emissions (g/s)
NO <sub>x</sub>	0.48	0.0198	0.002497
CO	1.39	0.0579	0.007301833
SO <sub>x</sub>	0.03	0.0013	0.000163944
PM	0.13	0.0055	0.000693611
PM <sub>10</sub>	0.13	0.0055	0.000693611
PM <sub>2.5</sub>	0.13	0.0055	0.000693611

Table 17 shows the effect of the project’s emissions increases, as determined in Table 16, on the Ambient Air quality Standards. The background concentrations for 2024 were retrieved from EPA’s Monitor Values Report page: <https://www.epa.gov/outdoor-air-quality-data/monitor-values-report> - used max value reported for each pollutant from the Salinas monitoring station. For PM<sub>10</sub> annual values, the information was retrieved from CARB’s iADAM Air Quality Data Page: <https://www.arb.ca.gov/adam/>, - Select 8 Summary, PM<sub>10</sub>, Annual Averages, Calendar Year 2024, County – San Benito.

Table 17. Source effect on ambient Air Quality Standards from linear generator.

Pollutant	Averaging period	Source conc. <sup>1</sup> (µg/m <sup>3</sup> )	Background conc. <sup>2</sup> (µg/m <sup>3</sup> )	Total conc. (µg/m <sup>3</sup> )	State standard (µg/m <sup>3</sup> )	Federal standard (µg/m <sup>3</sup> )	Total exceeds standard?
Nitrogen Dioxide <sup>3</sup> (NO <sub>2</sub> )	1-hr	1.105	54.6	55.705	339	188	No
	Annual	0.044	5.7	5.744	57	100	No
Carbon Monoxide (CO)	1-hr	3.23	1,946.8	1,950.030	23,000	40,000	No
	8-hr	1.888	687.1	688.988	10,000	10,000	No
Sulfur Dioxide <sup>4</sup> (SO <sub>2</sub> )	1-hr	0.073	Not available	0.073	655	196	No
	3-hr	0.062	Not available	0.062	None	1,300	No
	24-hr	0.016	Not available	0.016	105	None	No
PM <sub>10</sub>	24-hr	0.068	31	31.068	50	150	No
	Annual	0.01216	11.4	11.412	20	None	No
PM <sub>2.5</sub>	24-hr <sup>6</sup>	0.068	17.3	17.368	None	35	No
	Annual	0.012	6.2	6.212	12	9	No

<sup>1</sup> Source concentration = maximum concentration for each averaging period from AERMOD model run from both exhaust stacks multiplied by the emissions increase in g/s.

Example for the 1-hr period: CO = (442.42092 µg/m<sup>3</sup>/1 g/s) \* 7.301833 E-03 g/s = 3.23 µg/m<sup>3</sup>

<sup>2</sup> Background concentration were retrieved from EPA’s Monitor Values Report page: <https://www.epa.gov/outdoor-air-quality-data/monitor-values-report> and CARB’s iADAM Air Quality Data Page: <https://www.arb.ca.gov/adam/>.

<sup>3</sup> Conservatively assume all NO<sub>x</sub> emissions equal to NO<sub>2</sub>.

<sup>4</sup> Conservatively assume all SO<sub>x</sub> emissions equal to SO<sub>2</sub>.

As shown in Table 17, the project is not expected to affect the attainment status of the State and Federal air quality standards. As noted in SJVAPCD Policy APR 1925’s Level 1 analysis, if the project does not cause an exceedance of the any ambient air quality standard, then the analysis is complete and no further action is required. MBARD has determined that the project will not contribute significantly to an exceedance of the AAQS.

**Publication and Public Comment**

MBARD is required, pursuant to Section 6.9, to publish in at least one newspaper of general circulation in MBARD’s jurisdiction a notice stating the preliminary decision on a source’s application for a modification where the offset thresholds of Section 4.2 or 5.3 are exceeded. MBARD will comply with the requirements of Section 6.9 and issue the public notice in a local newspaper and will post the public notice on MBARD’s webpage. The public notice will invite written public comment for a 30-day period following the date of publication.

MBARD Rule 207 – Review of New or Modified Sources (as adopted on 2/15/2017)

**Note that MBARD has not received approval for the 2/15/2017 version of Rule 207 and MBARD is implementing Rule 207 as adopted on 4/20/2011. For informational purposes only, the Rule applicability of Rule 207 as adopted on 2/15/2017 is as follows:**

The purpose of this Rule is to provide for the review of new and modified stationary air pollution sources to meet the New Source Review requirements under the provisions of the California Clean Air Act. This Rule provides mechanisms by which Authorities to Construct may be granted to such sources without interfering with the attainment or maintenance of California ambient air quality standards. Each project subject to New Source Review shall undergo a review under the federal requirements contained within Rule 220 and Rule 221, and a parallel review under the requirements of this Rule and the most stringent applicable provisions shall apply.

Rule 207 applies to all new stationary sources and all modifications to existing stationary sources, which after construction or modification, emit or have the potential to emit any affected pollutants. This project is subject to the requirements of this Rule.

*Best Available Control Technology (BACT) requirements*

Pursuant to Section 4.1.1, BACT shall be required for any new or modified permit unit with a potential to emit 25 pounds per day or more of VOCs or NO<sub>x</sub>. As shown in Table 6 the linear generator does not exceed the BACT thresholds of Section 4.1.1.

Pursuant to Section 4.1.2, BACT shall be required for a new or modified stationary source which has the potential to emit greater than or equal to any pollutant levels listed in Table 4.1.1. Table 18 shows the emissions from the new project, the facility-wide emissions and the BACT thresholds of Section 4.1.2, Table 4.1.1.

Table 18. Facility-wide emissions and BACT thresholds of Table 4.1.1.

Permit No.:	NO <sub>x</sub> (lb/day)	VOC (lb/day)	CO (lb/day)	SO <sub>x</sub> (lb/day)	PM (lb/day)	PM <sub>10</sub> (lb/day)	PM <sub>2.5</sub> (lb/day)
7945B Emer. Tier 0 diesel eng-gen - 449 HP <sup>1,2</sup> (1997)	221.50	3.80	60.00	0.12	18.00	17.28	16.87
11806A Emer. Tier 2 diesel eng-gen - 2,220 HP <sup>1,2</sup> (2003)	809.80	9.98	152.60	0.62	41.10	39.46	38.51
14883A Port. Emer. Tier 3 diesel eng-gen set - 98 HP <sup>1,2</sup> (2011)	10.67	0.57	4.61	0.02	0.67	0.64	0.63
<b>16163A AST GDF<sup>3</sup> (1984)</b>							
GNR-0017433A Port. sewer pump Tier 3 diesel eng. - 84 HP <sup>1,2</sup> (2017)	13.85	0.73	3.98	0.02	1.09	1.05	1.02

Permit No.:	NO <sub>x</sub> (lb/day)	VOC (lb/day)	CO (lb/day)	SO <sub>x</sub> (lb/day)	PM (lb/day)	PM <sub>10</sub> (lb/day)	PM <sub>2.5</sub> (lb/day)
GNR-0017895 Advanced water purification facility <sup>4</sup>							
GNR-0017896 Advanced water demonstration purification facility <sup>4</sup>							
GNR-0018026 Fume hood (1990)		1.10					
GNR-0018242 Emer. Tier 4F diesel eng-gen - 65 HP <sup>1</sup> (2016)	9.52	0.52	0.24	0.02	0.03	0.03	0.03
GNR-0018289/MOD-21-00054 Wastewater treat. & reclamation (1982)		78.19					
GNR-0018290 Port Tier 4F diesel eng-pump set - 61 HP <sup>1</sup> (2019)	4.29	0.02	0.11	0.01	0.02	0.02	0.02
GNR-0018362 Digester gas gen. set #1 <sup>1</sup> (1984)	57.60	33.60	168.00	14.64	1.41	1.41	1.41
GNR-0018363 Digester gas gen. set #2 <sup>1</sup> (1992)	57.60	33.60	168.00	14.64	1.41	1.41	1.41
GNR-0018364 Digester gas gen. set #3 <sup>1</sup> (1992)	57.60	33.60	168.00	14.64	1.41	1.41	1.41
GNR-0018365 Dig. gas flare <sup>1</sup> (1987)	28.50	38.92	155.68	34.31	7.94	7.94	7.94
GNR-0018366 Boiler nat/digester gas 8.369MMBtu/hr <sup>1</sup> (1982)	19.70	1.10	16.50	0.10	1.50	1.50	1.50
GNR-0018367 Port. sludge lagoon barge rated @ 202 HP <sup>1,2</sup> (1995)	27.87	0.85	14.31	0.07	1.17	1.12	1.10
GNR-0018368 Port emer. Tier 1 diesel eng-gen - 1,114 HP <sup>1,2</sup> (2002)	339.79	2.36	40.05	0.32	5.48	5.26	5.13
PTO-23-00016 Port prime Tier 4F diesel eng-sewer pump - 74 HP (2023)	4.99	0.26	0.73	0.01	0.01	0.01	0.01
APP-25-00014 Co-digestion food waste processing-carbon filters (2025)		8.38					
APP-25-00095 Emer. nat. gas gen. rated - 132 HP (2025)	1.26	0.21	1.47	0.02	0.30	0.29	0.29
<b>APP-25-00105 Linear generator - 250 KW (2025)</b>	<b>0.48</b>	<b>0.66</b>	<b>1.39</b>	<b>0.03</b>	<b>0.13</b>	<b>0.13</b>	<b>0.13</b>
Total	1,665.02	248.45	955.67	79.59	81.67	78.96	77.41
Table 4.1.1 BACT threshold:	150	150	550	150	150	82	54.79

<sup>1</sup> PM<sub>10</sub> and PM<sub>2.5</sub> fractions estimated using CARB’s CEIDARS particulate matter size profile database (3/2017). For diesel IC engines: PM<sub>10</sub> = 0.96 PM & PM<sub>2.5</sub> = 0.937 PM. For nat. gas boilers: PM<sub>10</sub> = 1.0 PM & PM<sub>2.5</sub> = 1.0 PM. For gaseous material combustion (digester gas flare and engines): PM<sub>10</sub> = 1.0 PM & PM<sub>2.5</sub> = 1.0 PM.

<sup>2</sup> SO<sub>x</sub> emissions based upon low-sulfur diesel fuel of 15 ppm, or 2.5E-04 lb SO<sub>x</sub>/gal of diesel, and the fuel consumption rate of each diesel engine. PTO 7945B max fuel consumption rate is 19.3 gal/hr. PTO 11806A max fuel consumption rate is 103.6 gal/hr. PTO GNR-0018367 max fuel consumption rate is 12 gal/hr. Sample calculation for PTO GNR-0018367: [(12 gal/hr) (24 hr/day) (2.5E-04 lb SO<sub>x</sub>/gal of diesel) = 0.07 lb SO<sub>x</sub>/day].

<sup>3</sup> Pursuant to Rule 207, Section 1.3.1, gasoline storage and dispensing equipment subject to Rules 418 and Rule 1002 shall be exempt from the requirements of Rule 207. The gas station is subject to Rules 418 and 1002 and is exempt from Rule 207.

<sup>4</sup> The advanced water purification facilities are not a source of criteria pollutants. The facilities are permitted for the use of ozone generators.

Table 18 shows that the facility exceeds the BACT thresholds of Rule 207 for NO<sub>x</sub>, VOC, CO, and PM<sub>2.5</sub>. As noted above in Table 5, the proposed linear generator meets the SCAQMD BACT determination for linear generators at major facilities.

*Offset requirements*

Pursuant Section 4.2, Offsets are required for any new or modified source, which has the potential to emit greater than or equal to the thresholds of any affected polluted listed in Table 4.2.1.

Table 19 shows the emissions from the new project, the facility-wide emissions and the offset thresholds of Section 4.2, Table 4.2.1. The table shows that the proposed project does not exceed the Offset thresholds of Section 4.2, Table 4.2.1.

Table 19. Facility-wide emissions and offset analysis.

Permit/Application no.:	NO <sub>x</sub> <sup>1</sup> (lb/day)	VOC (lb/day)	CO (lb/day)	SO <sub>x</sub> (lb/day)	PM (lb/day)	PM <sub>10</sub> (lb/day)
7945B Emer. Tier 0 diesel eng-gen - 449 HP <sup>2</sup> (1997)						
11806A Emer. Tier 2 diesel eng-gen - 2,220 HP <sup>2</sup> (2003)						
14883A Port. Emer. Tier 3 diesel eng-gen set - 98 HP <sup>2</sup> (2011)						
16163A AST GDF <sup>3</sup> (1984)						
GNR-0017433A Port. sewer pump Tier 3 diesel eng. - 84 HP <sup>4,5</sup> (2017)	13.85	0.73	3.98	0.02	1.09	1.05
GNR-0017895 Advanced water purification facility <sup>6</sup>						
GNR-0017896 Advanced water demonstration purification facility <sup>6</sup>						
GNR-0018026 Fume hood (1990)		1.10				
GNR-0018242 Emer. Tier 4F diesel eng-gen - 65 HP <sup>2</sup> (2016)						
GNR-0018289/MOD-21-00054 Wastewater treat. & reclamation (1982)		78.19				
GNR-0018290 Port Tier 4F diesel eng-pump set - 61 HP <sup>4,5</sup> (2019)	4.29	0.02	0.11	0.01	0.02	0.02
<b>GNR-0018362 Digester gas gen. set #1<sup>4</sup> (1984)</b>	<b>57.60</b>	<b>33.60</b>	<b>168.00</b>	<b>14.64</b>	<b>1.41</b>	<b>1.41</b>
<b>GNR-0018363 Digester gas gen. set #2<sup>4</sup> (1992)</b>	<b>57.60</b>	<b>33.60</b>	<b>168.00</b>	<b>14.64</b>	<b>1.41</b>	<b>1.41</b>
<b>GNR-0018364 Digester gas gen. set #3<sup>4</sup> (1992)</b>	<b>57.60</b>	<b>33.60</b>	<b>168.00</b>	<b>14.64</b>	<b>1.41</b>	<b>1.41</b>

Permit/Application no.:	NO <sub>x</sub> <sup>1</sup> (lb/day)	VOC (lb/day)	CO (lb/day)	SO <sub>x</sub> (lb/day)	PM (lb/day)	PM <sub>10</sub> (lb/day)
<b>GNR-0018365 Dig. gas flare<sup>4</sup> (1987)</b>	<b>28.50</b>	<b>38.92</b>	<b>155.68</b>	<b>34.31</b>	<b>7.94</b>	<b>7.94</b>
<b>GNR-0018366 Boiler nat/digester gas 8.369MMBtu/hr<sup>4,9</sup> (1982)</b>	<b>19.70</b>	<b>1.10</b>	<b>16.50</b>	<b>0.10</b>	<b>1.50</b>	<b>1.50</b>
GNR-0018367A Port. Tier 3 diesel eng-sludge lagoon barge low-use - 202 HP <sup>4,5</sup> (1995)	27.87	0.85	14.31	0.07	1.17	1.12
<b>GNR-0018368 Port emer. Tier 1 diesel eng-gen - 1,114 HP<sup>2</sup> (2002)</b>						
PTO-23-00016 Port prime Tier 4F diesel eng-sewer pump - 74 HP (2023)	4.99	0.26	0.73	0.01	0.01	0.01
APP-25-00014 Co-digestion food waste processing-carbon filters (2025)		8.38				
APP-25-00095 Emer. nat. gas gen. rated - 132 HP <sup>2</sup> (2025)						
<b>APP-25-00105 Linear generator - 250 KW (2025)</b>	<b>0.48</b>	<b>0.66</b>	<b>1.39</b>	<b>0.03</b>	<b>0.13</b>	<b>0.13</b>
Total	272.48	231.01	696.70	78.47	16.09	16.00
Rule 207: Table 4.2.2 Offset Threshold:	150	150	550	150	150	82

<sup>1</sup> The facility is permitted with a daily NO<sub>x</sub> emission limit of 221 pounds per day (40.33 tons per year) from sources subject to offset requirements. The facility has been subject to Offsets since the initial permitting of the facility. **The sources highlighted in Bold are the sources subject to the facility daily NO<sub>x</sub> limit of 221 lbs/day.** The facility must keep records to demonstrate the daily emissions from all the equipment, except for equipment subject to the offset exemptions of Rule 207, does not exceed 221 pounds per day.

<sup>2</sup> Pursuant to Rule 207, Section 1.3.3, the offset requirements of Sections 4.2 and 5.3 do not apply to emergency internal combustion engine that is either only used for emergency power when normal power line services fail, or are used only for the emergency pumping of water, and are operated less than 60 hours per year for testing and exercise.

<sup>3</sup> Pursuant to Rule 207, Section 1.3.1, gasoline storage and dispensing equipment subject to Rules 418 and Rule 1002 shall be exempt from the requirements of Rule 207. The gas station is subject to Rules 418 and 1002 and is exempt from Rule 207.

<sup>4</sup> PM<sub>10</sub> and PM<sub>2.5</sub> fractions estimated using CARB’s CEIDARS particulate matter size profile database (3/2017). For diesel IC engines: PM<sub>10</sub> = 0.96 PM & PM<sub>2.5</sub> = 0.937 PM. For nat. gas boilers: PM<sub>10</sub> = 1.0 PM & PM<sub>2.5</sub> = 1.0 PM. For gaseous material combustion (digester gas flare and engines): PM<sub>10</sub> = 1.0 PM & PM<sub>2.5</sub> = 1.0 PM.

<sup>5</sup> SO<sub>x</sub> emissions based upon low-sulfur diesel fuel of 15 ppm, or 2.5E-04 lb SO<sub>x</sub>/gal of diesel, and the fuel consumption rate of each diesel engine. PTO 7945B max fuel consumption rate is 19.3 gal/hr. PTO 11806A max fuel consumption rate is 103.6 gal/hr. PTO GNR-0018367 max fuel consumption rate is 12 gal/hr. Sample calculation for PTO GNR-0018367: [(12 gal/hr) (24 hr/day) (2.5E-04 lb SO<sub>x</sub>/gal of diesel) = 0.07 lb SO<sub>x</sub>/day].

<sup>6</sup> The advanced water purification facilities are not a source of criteria pollutants. The facilities are permitted for the use of ozone generators.

Table 19 shows that the facility net emissions increases exceed the Offset thresholds for NO<sub>x</sub>, VOC and CO of Section 4.2, Table 4.2.1. As pointed out, the Rule as amended on 2/15/2017 has not been approved and the version as adopted on 4/20/2011 will be implemented.

MBARD Rule 218 – Title V: Federal Operating Permits

This is the implementing regulation by which the District issues the federal Operating Permits. Pursuant to the applicability Section 1.2, the provisions of the Rule apply to:

- Any facility that is a major source; or
- Any acid rain source, as defined by Title IV of the Act; or

- Any solid waste incinerator that must comply with Section 129(e) of the Act; or
- Any other stationary source or category of sources deemed to require a Federal Operating Permit (FOP) by the United States EPA.

Section 2.18.1 defines a major source as a stationary source or any group of stationary sources as defined above, that directly emits, or has the potential to emit, 100 tons per year or more of any air pollutant except greenhouse gases. The fugitive emissions of a stationary source shall not be considered in determining whether it is a major stationary source for the purpose of Section 302(j) of the Act unless the source belongs to one of the stationary source categories listed in 40 CFR 70.2 “Definitions – Major Source (2)(i-xxvi).

The facility has been issued a Title V permit, TV-122, at the regional wastewater treatment plant.

#### MBARD Rule 221 – Federal Prevention of Significant Deterioration

The federal Prevention of Significant Deterioration (PSD) program is a construction permitting program for new major stationary sources and major modifications to existing major stationary sources located in areas classified as attainment or in areas that are unclassifiable for any criteria air pollutant. This Rule provides for the review of new and modified major stationary sources to meet requirements for PSD, under the provisions of the federal Clean Air Act. The purpose of this Rule is to incorporate the federal PSD rule requirements into MBARD’s Rules and Regulations through incorporating the federal requirements by reference.

This Rule shall apply to any source and owner or operator of any source subject to any requirements under Title 40 Code of Federal Regulations, Part 52, Section 21 (40 CFR 52.21), as incorporated into this Rule.

The proposed project does not meet the definition of a new major stationary source, or a major modification to an existing stationary source. Since the Prevention of Significant Deterioration (PSD) program only applies to new major stationary sources, or major modifications to stationary sources, this project is not subject to MBARD Rule 221.

#### MBARD Rule 222 – Minor New Source Review

This Rule provides for the review of new and modified stationary air pollution sources to meet the requirements for the review of such sources, under the new source review (NSR) provisions of the federal Clean Air Act. This Rule provides mechanisms by which Authorities to Construct may be granted to such sources without interfering with the attainment or maintenance of ambient air quality standards.

This Rule shall apply to any new or modified stationary source that emits an air pollutant (or its precursors) subject to any National Ambient Air Quality Standard (NAAQS).

Compliance with the New Source Review (NSR) provisions of the California Clean Air Act, as defined in MBARD Rule 207, ensures compliance with MBARD Rule 222, Federal Minor NSR.

#### MBARD Rule 300 – District Fees

This Rule provides the mechanisms for assessing fees for the issuance and renewal of Permits to Operate, Authorities to Construct, and other actions in MBARD's permit system; and to recover MBARD costs for requested services, materials, or equipment. The fees prescribed within this Rule do not exceed the cost of issuing, maintaining, and performing inspection activities pertaining to all permits.

This Rule shall apply to all owners and operators of stationary sources which are required by MBARD Rule 200 *Permits Required* to obtain an Authority to Construct or Permit to Operate; and to requesters of MBARD services, materials, or equipment.

According to MBARD Fee Determination Protocol, affirmed by the Board on 6/16/04, and revised on 8/26/19, the billable emissions shall be based on the 75% of the potential to emit for equipment listed on the permit unless operation is restricted by permit conditions. Table 20 shows the billable emissions from the proposed linear generator with a corresponding fee code 502.

Table 20. PTE emissions for the linear generator.

Pollutant	Yearly emissions <sup>1</sup> (ton/yr)
NO <sub>x</sub>	0.09
VOC	0.12
CO	0.25
SO <sub>x</sub>	0.01
PM	0.02
PTE Total:	0.49
75% PTE:	0.37

<sup>1</sup> Annual emissions based upon proposed operating schedule of 24 hours per day and 365 days per year (8,760 hours per year).

MBARD Rule 400 – Visible Emissions:

The purpose of this Rule is to provide limits for the visible emissions from sources within MBARD. The provisions of this Rule shall apply to all sources of air pollutant emissions in MBARD.

According to MBARD Rule 400 Section 3.1, no air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark or darker than Ringelmann 1, or equivalent 20% opacity. This requirement will be included as a permit condition.

MBARD Rule 402 – Nuisance:

The purpose of this Rule is to provide an explicit prohibition against sources creating public nuisances while operating within MBARD. The provisions of this Rule shall apply to all sources of air pollutant emissions within the Air District.

According to MBARD Rule 402, Part 3, no person shall discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or which endanger the comfort, repose, health, or safety of any such persons or the public; or which cause, or have a natural tendency to cause, injury or damage to business or property. This requirement will be included as a permit condition.

MBARD Rule 403 – Particulate Matter:

The purpose of this Rule is to provide particulate matter emission limits for sources operating within MBARD. The provisions of this Rule shall apply to any source discharging particulate matter while operating within the Air District.

Pursuant to Section 3.1, a person shall not discharge from any source whatsoever particulate matter in excess of 0.15 grains/ft<sup>3</sup>. Compliance is assured by the calculation below based on PM hourly emission rate of 0.0054 lb/hr [(0.13 lb/day) ÷ (24 hr/day) = 0.0054 lb/hr] and exhaust flow rate of 12,864 ft<sup>3</sup>/hr.

$$PM \left( \frac{gr}{ft^3} \right) = \frac{PM, lb}{hr} \times \frac{7,000 gr}{lb} \div \frac{exhaust\ flow, ft^3}{hr}$$
$$PM \left( \frac{gr}{ft^3} \right) = \frac{0.0054 lb}{hr} \times \frac{7,000 gr}{lb} \div \frac{12,864 ft^3}{hr} = \frac{0.0029 gr}{ft^3}$$

#### MBARD Rule 404 – Sulfur Compounds & Nitrogen Oxides

The purpose of this Rule is to provide limits for the emissions of sulfur compounds, nitrogen oxides and nitrogen dioxide from sources within MBARD. The provisions of this Rule shall apply to sources of sulfur compounds, nitrogen oxides, and nitrogen dioxide subject to MBARD Rule 200 *Permits Required*.

Pursuant to Section 1.3.2, any source subject to an emission limit imposed by the BACT requirements of Section 4.1 or 5.2 of MBARD Rule 207 shall not be subject to Section 3.1 of this Rule for the same pollutant. As noted above, the project is subject and will meet the Rule 207 BACT requirements.

#### MBARD Rule 412 – Sulfur Content of Fuels:

The purpose of this Rule is to limit emissions of sulfur oxides from combustion sources within MBARD. The provisions of this Rule shall apply to all combustion sources operated within the Air District unless exempted pursuant to Section 1.3 of this Rule.

According to MBARD Rule 412 Part 3, no person shall burn within MBARD any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions. The linear generator will use PUC natural gas, which will ensure compliance with this requirement. The following link shows PG&E's sulfur gas survey results from 2006 to present, which show total sulfur has not exceeded 50 grains per 100 cubic feet:

[https://www.pge.com/pipeline/operations/sulfur/sulfur\\_info\\_values/index.page](https://www.pge.com/pipeline/operations/sulfur/sulfur_info_values/index.page)

#### MBARD Rule 436 – Title V: General Prohibitory Rule

The purpose of this Rule is to provide federally enforceable potential to emit limitations limiting emissions below the thresholds requiring federal Title V operating permits under Rule 218.

Pursuant to Section 1.3.1.3, any stationary source with a valid federal operating permit is exempt from the requirements of this Rule. As stated above, the facility is operating under a Title V permit and is exempt from the requirements of this Rule.

#### Rule 1000 – Toxic Air Contaminants:

This Rule applies to any new or modified stationary sources for which an Authority to Construct or a Permit to Operate is required pursuant to MBARD Regulation II - Permits, and which has the potential to emit into the atmosphere any TAC. Whenever a potential TAC may be subject to more than one MBARD Rule, or to more than one requirement in this rule, the requirement resulting in the least hazard to the public, as determined by the Air Pollution Control Officer, shall apply.

MBARD Rule 1000 Part 3 requires new or modified sources of toxic air contaminants (TAC) and carcinogenic toxic air contaminants (CATC) to meet the following:

- 3.1.1 The acute hazard index for any target organ or organ system due to TAC emissions from the new or modified permit unit shall not exceed 1.0 at any receptor location;
- 3.1.2 The chronic hazard index for any target organ or organ system due to TAC emissions from the new or modified permit unit shall not exceed 1.0 at any receptor location;
- 3.1.3 The cancer risk due to TAC emissions from the new or modified permit unit shall not exceed

10 in one million at any receptor location.

The applicant submitted TAC emission factors for the linear generator supplied by Mainspring Energy and are based on confidential source testing data conducted by Mainspring Energy. The source testing used EPA Method 15 for all TACs except for Formaldehyde and Acetaldehyde, which were measured by CARB Method 430. The emission factors were established between Mainspring Energy and the Bay Area Air Quality Management District.

In addition, the source tests did not sample for polycyclic aromatic hydrocarbons (PAHs), which are normally reported for natural gas internal combustion engines. The source test results along with the emission factor for PAHs from SJVAPCD's AB2588 "Hot Spots" Air Toxics Profiles for controlled NG IC 4SLB with engines with a catalyst, profile #239, were used to get the prioritization scores for the project.

Table 21 shows the TAC PTE emissions from the linear generator including PAHs.

Table 21. Linear generator TAC PTE emissions.

Pollutant	Cas #	Emission Factor <sup>1</sup> (lb/MMBtu)	Emission Factor <sup>2</sup> (lb/MMscf)	Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)
Acetaldehyde	75070	1.30E-04		2.80E-04	2.45E+00
Acrolein	107028	1.80E-05		3.87E-05	3.39E-01
Benzene	71432	8.90E-05		1.92E-04	1.68E+00
1,3-Butadiene	106990	6.00E-08		1.29E-07	1.13E-03
Ethyl benzene	100414	1.70E-05		3.66E-05	3.20E-01
Formaldehyde	50000	4.00E-03		8.61E-03	7.54E+01
Hexane	110543	2.50E-04		5.38E-04	4.71E+00
Naphthalene	91203	1.60E-06		3.44E-06	3.02E-02
Toluene	108883	6.90E-05		1.48E-04	1.30E+00
PAHs <sup>2</sup>	1151	-	1.86E-03	3.92E-06	3.44E-02

<sup>1</sup> Emission factors (except for PAHs) provided by applicant and were supplied by Mainspring Energy, which have claimed confidential source testing data conducted by Mainspring Energy.

<sup>2</sup> PAHs emissions based on the SJVAPCD's AB2588 "Hot Spots" Air Toxics Profile natural gas internal combustion engines (ICE) 4-stroke lean burn (4SLB) engines with controls, profile #239, which lists the emission factor as 1.86E-03 lb/MMscf. Note this differs from the applications emission factor, which used the emission factors for natural gas ICE 4SLB with catalyst (controlled) and a 76% control efficiency applied to account for the Johnson Matthey oxidation catalyst, which was the control efficiency for the non-methane hydrocarbons.

$$\frac{PAH, lb}{hr} = \frac{2,109.692 ft^3}{hr} \times \frac{MMft^3}{10^6 ft^3} \times \frac{1.86E-03 lb}{MMft^3} = \frac{3.92E-06 lbPAH}{hr}$$

Table 22 shows the TAC pollutants from the linear generators and the OEHHA risk values.

Table 22. TAC pollutants and OEHHA Risk values.

Pollutant	Cas no.	Acute inhalation REL (µg/m <sup>3</sup> )	Chronic inhalation REL (µg/m <sup>3</sup> )	Inhalation unit risk (µg/m <sup>3</sup> ) <sup>-1</sup>
Acetaldehyde	75070	470	140	2.70E-06
Acrolein	107028	2.5	0.35	0.00E+00
Benzene	71432	27	3	2.90E-05
1,3-Butadiene	106990	660	2	1.70E-04
Ethyl benzene	100414		2000	2.50E-06
Formaldehyde	50000	55	9	6.00E-06

Pollutant	Cas no.	Acute inhalation REL ( $\mu\text{g}/\text{m}^3$ )	Chronic inhalation REL ( $\mu\text{g}/\text{m}^3$ )	Inhalation unit risk ( $\mu\text{g}/\text{m}^3$ ) <sup>-1</sup>
Hexane	110543		7000	0.00E+00
Naphthalene	91203		9	3.40E-05
Toluene	108883	5000	420	0.00E+00
PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]	1151			1.10E-03

The prioritization score was conducted using SJVAPCD’s Prioritization Calculator (12/1/22). The spreadsheet was updated to include the updated OEHHA health database as of 8/18/2025 (from the CARB HARP2 tool).

Table 23 shows the prioritization scores, which include acute, chronic, and cancer scores. The nearest worker receptor distance is 340 meters away, east of the proposed unit. The nearest residential receptor is located at greater than 1,500 meters away. As shown in the table, the acute, chronic, and cancer prioritization scores for receptor at greater than 250 meters are below the threshold of 1.0 from Part 3 of this Rule. A copy of the prioritization score spreadsheet is shown in Attachment 2.

Table 23. Prioritization scores.

Receptor proximity & proximity factor	Cancer Score	Chronic Score	Acute Score
250 < R < 500 (0.040)	1.69E-01	6.80E-03	1.08E-02
500 < R < 1000 (0.011)	4.64E-02	1.87E-03	2.97E-03
1000 < R < 1500 (0.003)	1.26E-02	5.10E-04	8.09E-04
1500 < R < 2000 (0.002)	8.43E-03	3.40E-04	5.39E-04

40 CFR Part 60, Subpart JJJJ, NSPS For Stationary Compression Ignition Internal Combustion Engine  
 Pursuant to Section §60.4248, a stationary internal combustion engine is any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE includes reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

The applicant has stated that the proposed linear generator is incapable of producing brake or mechanical work. Since it is not clear whether the linear generator meets the definition of a stationary internal combustion engine of Section §60.4248, the facility has submitted an argument and request to the U.S. EPA stating that the technology does not meet the definition of mechanical work. Until EPA formally acts on Mainspring Energy’s request for a rule applicability, the MBARD intends to subject the unit to Subpart JJJJ.

*Emission Standards*

Pursuant to [Section §60.4233\(e\)](#), owners and operators of SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) to comply with the emission standards in Table 1 to this subpart. Table 24 shows the emissions standards of Subpart JJJJ for non-emergency SI natural gas and non-emergency SI lean burn LPG engines rated 100≤HP<500 build after 1/1/2011. As shown in Table 24, the Subpart JJJJ emission standards are higher than the proposed limits of 2.5 ppmv @ 15% O<sub>2</sub> for NO<sub>x</sub>, 12 ppmv @ 15% O<sub>2</sub> for CO, and 10 ppmv @ 15% O<sub>2</sub> for VOC.

Table 24. Subpart JJJJ, Table 1 emissions standards for non-emergency engines rated 100≤HP<500 after 1/1/2011.

Pollutant	Emission standards (g/hp-hr)	Emission Standards (ppmvd @ 15% O <sub>2</sub> )
NO <sub>x</sub>	1.0	82

CO	2.0	270
VOC <sup>1</sup>	0.7	60

<sup>1</sup> For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

*General Compliance for purchasing non-certified engine: §60.4243(b)(2)*

Pursuant to Section [§60.4243\(b\)\(2\)](#), owners or operators purchasing a non-certified engine must demonstrate compliance with the emission standards specified in §60.4233(d) or (e) according to the requirements specified in Section §60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of this section.

[§60.4243\(b\)\(2\)\(i\)](#) – for owner/operator of a stationary sparking ignition internal combustion engine greater than 25 HP and less than or equal to 500 HP, must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the owner/operator must conduct an initial performance test to demonstrate compliance. As stated above, the facility has proposed to meet lower emission limits for the linear generator and will be conditioned to conduct an initial performance test..

*Performance Testing for Non-certified Engine:*

Pursuant to Section [§60.4244](#), the performance test must follow the procedures of paragraphs (a) through (f) of this section. The permit will be conditioned to follow the test procedures of this Section.

*Notifications, Reports, and Records Requirement: Section §60.4245(a), (d)*

Pursuant to Section [§60.4245\(a\)](#), owners and operators of all stationary sparking ignition internal combustion engine must keep records of the information in paragraphs (a)(1) through (4) of this section.

- (1) All notifications submitted to comply with this subpart and all documentation supporting any notification.
- (2) Maintenance conducted on the engine.
- (3) If the stationary sparking ignition internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
- (4) If the stationary sparking ignition internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

The permit will be conditioned to comply with the requirements of this section.

Health & Safety Code (H&SC) Section 42301.6 – Public Notification Requirements:

Pursuant to Section §42301.6(a), prior to approving an application for a permit to construct or modify a source that emits hazardous air emissions, and that source is located within 1,000 feet from the outer boundary of a school site, the air pollution control officer shall prepare a public notice in which the proposed project or modification for which the application for a permit is made is fully described. The notice may be prepared whether or not the material is or would be subject to subdivision (a) of Section 25536, if the air pollution control officer determines and the administering agency concurs that hazardous air emissions of

the material may result from an air release, as defined by Section 44303. The notice may be combined with any other notice on the project or permit that is required by law.

The project is not located within 1,000 feet of a school as shown in Figure 3. Thus, the project is not subject to the requirements of the H&SC Section 42301.6.



Figure 3. Google Earth Pro image.

## VII. CONCLUSIONS:

The equipment has the capability to comply with all applicable MBARD rules and regulations.

## VIII. RECOMMENDATIONS:

Issue the Authorities to Construct with the following additional conditions:

1. No later than twenty-four (24) hours prior to start-up of the equipment, Monterey One Water must notify the Monterey Bay Air Resources District (MBARD) and arrange for an inspection of the equipment during normal operation to verify compliance with MBARD Rules and Regulations. [Basis: MBARD Rule 207]
2. The annual hours of operation and natural gas usage shall be reported to MBARD, upon request. [Basis: MBARD Rule 207]
3. This equipment shall not exceed the following emission concentration limits corrected to 15% oxygen: [Basis: MBARD Rule 207, BACT]

- a) NO<sub>x</sub> 2.5 ppmvd
- b) VOC 10 ppmvd
- c) CO 12 ppmvd

4. The linear generator shall only operate using Public Utility Commission (PUC) quality natural gas, with a sulfur content not to exceed 50 grains per 100 cubic feet, as calculated as hydrogen sulfide at standard conditions. [Basis: MBARD Rule 207 and MBARD Rule 412]
5. Monterey One Water shall maintain a log, summarized monthly, to record the following: [Basis: MBARD Rule 207]
  - a) Total hours of operation;
  - b) Fuel consumption (cubic feet of gas). If no fuel records available, fuel usage can be based on a maximum fuel usage rate of 2,109.7 ft<sup>3</sup>/hr (0.0021097 MMft<sup>3</sup>/hr);
  - c) Any maintenance records for the linear generator; and,
  - d) Any maintenance records for the oxidation catalyst.

Records shall be retained for at least five (5) years and made readily available to MBARD staff upon request.

6. An initial startup performance test shall be conducted within 180 days of start-up in accordance with MBARD's Source Test Procedures found on MBARD's website at <https://www.mbard.org/source-testing>. [Basis: MBARD Rule 207]

A complete test protocol shall be submitted to MBARD no later than thirty (30) days prior to testing, and MBARD notification at least ten (10) days prior to the actual date of testing shall be provided so that an MBARD observer may be present.

The written results of such performance tests shall be furnished within sixty (60) days of the test completion. The performance tests shall include, but not limited to, the determination of the following exhaust parameters:

- a) Oxides of Nitrogen (NO<sub>x</sub>), as NO<sub>2</sub>: ppmv at 15% O<sub>2</sub> dry, lbm/hr and lb/MW-hr;
- b) Carbon Monoxide (CO): ppmv at 15% O<sub>2</sub> dry, lbm/hr and lb/MW-hr; and,
- c) Methane & Non-Methane Hydrocarbons: ppmv at 15% O<sub>2</sub> dry, lbm/hr and lb/MW-hr.

And the following process parameters:

- d) Stack flow rate (SDCFM);
- e) Oxygen (%);
- f) Natural gas consumption rate (cubic feet);
- g) Kilowatt output (Kw).

7. Each linear generator core shall be equipped with an internal, non-resettable timer that monitors operating hours over the course life of each core. [Basis: MBARD Rule 207]
8. The linear generator shall not be operated unless its exhaust is vented to the oxidation catalyst which is in full operation and which is in good operating condition at all times. [Basis: MBARD Rule 207]

9. The oxidation catalyst shall be inspected every 8,760 hours of operation. The catalyst shall be replaced as needed. [Basis: MBARD Rule 207]
10. This equipment shall be equipped with an air-to-fuel ratio controller with an oxygen sensor. The air-to-fuel ratio controller must be maintained and operated appropriately in order to ensure proper operation of the linear generator and control device to minimize emissions at all times. [Basis: MBARD Rule 207]
11. The linear generator and the oxidation catalyst shall be operated and maintained in accordance with manufacturer specifications and procedures. Monterey One Water must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the linear generator in a manner consistent with good air pollution control practice for minimizing emissions. Maintenance records shall be retained for at least three years and made readily available to MBARD staff upon request. [Basis: District Rule 207]
12. 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 or darker than Ringelmann 1, or equivalent 20 percent opacity. [Basis: MBARD Rule 400]
13. No emissions shall constitute a public nuisance. [Basis: MBARD Rule 402]

Attachment 1

AERMOD Model Input Files and Results

# Control Pathway

AERMOD

## Dispersion Options

<b>Titles</b> C:\Lakes\AERMOD View\APP-25-00105_v2\APP-25-00105_v2.isc	
<b>Dispersion Options</b> <input type="checkbox"/> Regulatory Default <input checked="" type="checkbox"/> Non-Default Options	<b>Dispersion Coefficient</b> Rural
<input checked="" type="checkbox"/> Elevated Terrain <input type="checkbox"/> No Stack-Tip Downwash (NOSTD) <input type="checkbox"/> Run in Screening Mode <input type="checkbox"/> Conversion of NOx to NO2 (OLM or PVMRM) <input type="checkbox"/> No Checks for Non-Sequential Met Data <input type="checkbox"/> Fast All Sources (FASTALL) <input type="checkbox"/> Fast Area Sources (FASTAREA) <input type="checkbox"/> Optimized Area Source Plume Depletion <input type="checkbox"/> Gas Deposition	<b>Output Type</b> <input checked="" type="checkbox"/> Concentration <input type="checkbox"/> Total Deposition (Dry & Wet) <input type="checkbox"/> Dry Deposition <input type="checkbox"/> Wet Deposition
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <b>BETA Options:</b>  <input type="checkbox"/> Capped and Horizontal Stack Releases  <input type="checkbox"/> Adjusted Friction Velocity (u*) in AERMET (ADJ_U*)  <input type="checkbox"/> Low Wind Options         </div> <input type="checkbox"/> SCIM (Sampled Chronological Input Model) <input type="checkbox"/> Ignore Urban Night / Daytime Transition (NOURBTRAN)	<b>Plume Depletion</b> <input type="checkbox"/> Dry Removal <input type="checkbox"/> Wet Removal
	<b>Output Warnings</b> <input type="checkbox"/> No Output Warnings <input type="checkbox"/> Non-fatal Warnings for Non-sequential Met Data

## Pollutant / Averaging Time / Terrain Options

<b>Pollutant Type</b>  <b>Averaging Time Options</b> Hours <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> 8 <input type="checkbox"/> 12 <input type="checkbox"/> 24 <input type="checkbox"/> Month <input type="checkbox"/> Period <input checked="" type="checkbox"/> Annual	<b>Exponential Decay</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Flagpole Receptors</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Default Height = 0.00 m	<b>Terrain Height Options</b> <input type="checkbox"/> Flat <input checked="" type="checkbox"/> Elevated      SO: Meters RE: Meters TG: Meters

## Optional Files



Re-Start File



Init File



Multi-Year Analyses



Event Input File



Error Listing File

### Detailed Error Listing File

Filename: APP-25-00105\_v2.err

# Source Pathway - Source Inputs

AERMOD

## Point Sources

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Gas Exit Temp. [K]	Gas Exit Velocity [m/s]	Stack Inside Diameter [m]
POINT	1	609976.48	4062865.34	31.91	2.90	0.50000	373.15	5.16	0.87
		Linear Generator - vent 1							
POINT	2	609978.48	4062865.34	31.85	2.90	0.50000	373.15	5.16	0.87
		Linear Generator - vent 2							

# Source Pathway

AERMOD

## Building Downwash Information

<b>Source ID:</b> 1						
<b>Heights [m] (10 to 360 deg)</b>						
10-60 deg	8.00	4.00	0.00	0.00	8.00	8.00
70-120 deg	8.00	8.00	8.00	8.00	8.00	8.00
130-180 deg	8.00	8.00	8.00	8.00	8.00	8.00
190-240 deg	8.00	4.00	0.00	0.00	8.00	8.00
250-300 deg	8.00	8.00	8.00	8.00	8.00	8.00
310-360 deg	8.00	8.00	8.00	8.00	8.00	8.00
<b>Widths [m] (10 to 360 deg)</b>						
10-60 deg	17.82	21.42	0.00	0.00	25.41	27.33
70-120 deg	28.41	28.64	27.99	26.49	25.21	27.20
130-180 deg	28.36	28.66	28.09	26.66	24.43	21.45
190-240 deg	17.82	21.42	0.00	0.00	25.41	27.33
250-300 deg	28.41	28.64	27.99	26.49	25.21	27.20
310-360 deg	28.36	28.66	28.09	26.66	24.43	21.45
<b>Lengths [m] (10 to 360 deg)</b>						
10-60 deg	26.49	25.73	0.00	0.00	28.66	28.09
70-120 deg	26.66	24.43	21.45	17.82	15.37	19.34
130-180 deg	22.72	25.41	27.33	28.41	28.64	27.99
190-240 deg	26.49	25.73	0.00	0.00	28.66	28.09
250-300 deg	26.66	24.43	21.45	17.82	15.37	19.34
310-360 deg	22.72	25.41	27.33	28.41	28.64	27.99
<b>Along Flow [m] (10 to 360 deg)</b>						
10-60 deg	-4.35	-6.04	0.00	0.00	-15.65	-18.02
70-120 deg	-19.85	-21.07	-21.65	-21.57	-21.70	-24.61
130-180 deg	-26.78	-28.13	-28.62	-28.25	-27.01	-24.96
190-240 deg	-22.15	-19.69	0.00	0.00	-13.00	-10.06
250-300 deg	-6.81	-3.36	0.20	3.75	6.33	5.27
310-360 deg	4.06	2.72	1.30	-0.17	-1.62	-3.03
<b>Across Flow [m] (10 to 360 deg)</b>						
10-60 deg	12.66	10.99	0.00	0.00	15.42	14.96
70-120 deg	14.04	12.70	10.96	8.90	6.56	4.03
130-180 deg	1.37	-1.32	-3.98	-6.52	-8.86	-10.93
190-240 deg	-12.66	-10.99	0.00	0.00	-15.42	-14.96
250-300 deg	-14.04	-12.70	-10.96	-8.90	-6.56	-4.03
310-360 deg	-1.37	1.32	3.98	6.52	8.86	10.93

<b>Source ID:</b> 2						
<b>Heights [m] (10 to 360 deg)</b>						
10-60 deg	4.00	0.00	0.00	0.00	0.00	8.00

# Source Pathway

AERMOD

70-120 deg	8.00	8.00	8.00	8.00	8.00	8.00
130-180 deg	8.00	8.00	8.00	8.00	8.00	8.00
190-240 deg	4.00	0.00	0.00	0.00	0.00	8.00
250-300 deg	8.00	8.00	8.00	8.00	8.00	8.00
310-360 deg	8.00	8.00	8.00	8.00	8.00	8.00
<b>Widths [m] (10 to 360 deg)</b>						
10-60 deg	24.24	0.00	0.00	0.00	0.00	27.33
70-120 deg	28.41	28.64	27.99	26.49	25.21	27.20
130-180 deg	28.36	28.66	28.09	26.66	24.43	21.45
190-240 deg	24.24	0.00	0.00	0.00	0.00	27.33
250-300 deg	28.41	28.64	27.99	26.49	25.21	27.20
310-360 deg	28.36	28.66	28.09	26.66	24.43	21.45
<b>Lengths [m] (10 to 360 deg)</b>						
10-60 deg	26.49	0.00	0.00	0.00	0.00	28.09
70-120 deg	26.66	24.43	21.45	17.82	15.37	19.34
130-180 deg	22.72	25.41	27.33	28.41	28.64	27.99
190-240 deg	26.49	0.00	0.00	0.00	0.00	28.09
250-300 deg	26.66	24.43	21.45	17.82	15.37	19.34
310-360 deg	22.72	25.41	27.33	28.41	28.64	27.99
<b>Along Flow [m] (10 to 360 deg)</b>						
10-60 deg	-4.69	0.00	0.00	0.00	0.00	-19.76
70-120 deg	-21.73	-23.04	-23.65	-23.54	-23.58	-26.35
130-180 deg	-28.31	-29.41	-29.62	-28.93	-27.36	-24.96
190-240 deg	-21.80	0.00	0.00	0.00	0.00	-8.33
250-300 deg	-4.93	-1.39	2.20	5.72	8.21	7.01
310-360 deg	5.59	4.00	2.30	0.52	-1.28	-3.03
<b>Across Flow [m] (10 to 360 deg)</b>						
10-60 deg	11.42	0.00	0.00	0.00	0.00	15.96
70-120 deg	14.72	13.04	10.96	8.55	5.88	3.03
130-180 deg	0.09	-2.86	-5.71	-8.40	-10.83	-12.93
190-240 deg	-11.42	0.00	0.00	0.00	0.00	-15.96
250-300 deg	-14.72	-13.04	-10.96	-8.55	-5.88	-3.03
310-360 deg	-0.09	2.86	5.71	8.40	10.83	12.93

## Emission Rate Units for Output

### For Concentration

Unit Factor: 1E6  
 Emission Unit Label: GRAMS/SEC  
 Concentration Unit Label: MICROGRAMS/M\*\*3

# Source Pathway

AERMOD

## Source Groups

Source Group ID: ALL	List of Sources in Group (Source Range or Single Sources)
	All Sources Included
Source Group ID: 2	List of Sources in Group (Source Range or Single Sources)
	2
Source Group ID: 1	List of Sources in Group (Source Range or Single Sources)
	1

# Meteorology Pathway

AERMOD

## Met Input Data

### Surface Met Data

Filename: S:\ENG\Permits\Mengmeng\_AERMOD\_05042020\Weather Data 2019\2015-2019\_monterey\_u.SFC  
Format Type: Default AERMET format

### Profile Met Data

Filename: S:\ENG\Permits\Mengmeng\_AERMOD\_05042020\Weather Data 2019\2015-2019\_monterey\_u.PFL  
Format Type: Default AERMET format

### Wind Speed



Wind Speeds are Vector Mean (Not Scalar Means)

### Wind Direction

Rotation Adjustment [deg]:

### Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 50.30 [m]

### Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface		2015			OAKLAND/WSO AP
Upper Air		2015			

## Data Period

### Data Period to Process

Start Date: 1/1/2015 Start Hour: 1 End Date: 12/31/2019 End Hour: 24

## Wind Speed Categories

Stability Category	Wind Speed [m/s]	Stability Category	Wind Speed [m/s]
A	1.54	D	8.23
B	3.09	E	10.8
C	5.14	F	No Upper Bound

# Receptor Pathway

AERMOD

## Receptor Networks

Note: Terrain Elevations and Flagpole Heights for Network Grids are in Page RE2 - 1 (If applicable)  
Generated Discrete Receptors for Multi-Tier (Risk) Grid and Receptor Locations for Fenceline Grid are in Page RE3 - 1 (If applicable)

## Discrete Receptors

### Discrete Cartesian Receptors

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	609527.48	4062415.34	UCART1	28.71	
2	609552.48	4062415.34	UCART1	29.19	
3	609577.48	4062415.34	UCART1	29.79	
4	609602.48	4062415.34	UCART1	31.47	
5	609627.48	4062415.34	UCART1	34.38	
6	609652.48	4062415.34	UCART1	36.98	
7	609677.48	4062415.34	UCART1	37.00	
8	609702.48	4062415.34	UCART1	37.00	
9	609727.48	4062415.34	UCART1	37.00	
10	609752.48	4062415.34	UCART1	37.00	
11	609777.48	4062415.34	UCART1	36.95	
12	609802.48	4062415.34	UCART1	36.71	
13	609827.48	4062415.34	UCART1	36.95	
14	609852.48	4062415.34	UCART1	37.19	
15	609877.48	4062415.34	UCART1	38.28	
16	609902.48	4062415.34	UCART1	39.39	
17	609927.48	4062415.34	UCART1	39.54	
18	609952.48	4062415.34	UCART1	39.29	
19	609977.48	4062415.34	UCART1	38.71	
20	610002.48	4062415.34	UCART1	38.39	
21	610027.48	4062415.34	UCART1	38.29	
22	610052.48	4062415.34	UCART1	38.29	
23	610077.48	4062415.34	UCART1	38.34	
24	610102.48	4062415.34	UCART1	38.58	
25	610127.48	4062415.34	UCART1	42.00	
26	610152.48	4062415.34	UCART1	42.90	
27	610177.48	4062415.34	UCART1	43.99	
28	610202.48	4062415.34	UCART1	44.96	
29	610227.48	4062415.34	UCART1	44.99	
30	610252.48	4062415.34	UCART1	45.58	

# Receptor Pathway

AERMOD

31	610277.48	4062415.34	UCART1	45.59
32	610302.48	4062415.34	UCART1	44.07
33	610327.48	4062415.34	UCART1	42.80
34	610352.48	4062415.34	UCART1	42.20
35	610377.48	4062415.34	UCART1	41.95
36	610402.48	4062415.34	UCART1	41.71
37	610427.48	4062415.34	UCART1	41.71
38	609527.48	4062440.34	UCART1	28.95
39	609552.48	4062440.34	UCART1	29.70
40	609577.48	4062440.34	UCART1	30.62
41	609602.48	4062440.34	UCART1	32.72
42	609627.48	4062440.34	UCART1	35.91
43	609652.48	4062440.34	UCART1	36.74
44	609677.48	4062440.34	UCART1	36.85
45	609702.48	4062440.34	UCART1	36.87
46	609727.48	4062440.34	UCART1	36.87
47	609752.48	4062440.34	UCART1	36.87
48	609777.48	4062440.34	UCART1	36.73
49	609802.48	4062440.34	UCART1	36.01
50	609827.48	4062440.34	UCART1	36.93
51	609852.48	4062440.34	UCART1	37.87
52	609877.48	4062440.34	UCART1	39.18
53	609902.48	4062440.34	UCART1	40.45
54	609927.48	4062440.34	UCART1	40.99
55	609952.48	4062440.34	UCART1	40.26
56	609977.48	4062440.34	UCART1	40.15
57	610002.48	4062440.34	UCART1	39.47
58	610027.48	4062440.34	UCART1	39.13
59	610052.48	4062440.34	UCART1	39.13
60	610077.48	4062440.34	UCART1	39.27
61	610102.48	4062440.34	UCART1	39.99
62	610127.48	4062440.34	UCART1	41.55
63	610152.48	4062440.34	UCART1	42.53
64	610177.48	4062440.34	UCART1	43.92
65	610202.48	4062440.34	UCART1	45.65
66	610227.48	4062440.34	UCART1	47.04
67	610252.48	4062440.34	UCART1	47.25
68	610277.48	4062440.34	UCART1	47.25

# Receptor Pathway

AERMOD

69	610302.48	4062440.34	UCART1	45.27
70	610327.48	4062440.34	UCART1	43.70
71	610352.48	4062440.34	UCART1	42.80
72	610377.48	4062440.34	UCART1	41.97
73	610402.48	4062440.34	UCART1	41.13
74	610427.48	4062440.34	UCART1	40.81
75	609527.48	4062465.34	UCART1	29.79
76	609552.48	4062465.34	UCART1	29.99
77	609577.48	4062465.34	UCART1	31.44
78	609602.48	4062465.34	UCART1	33.30
79	609627.48	4062465.34	UCART1	34.24
80	609652.48	4062465.34	UCART1	35.08
81	609677.48	4062465.34	UCART1	35.87
82	609702.48	4062465.34	UCART1	36.04
83	609727.48	4062465.34	UCART1	36.04
84	609752.48	4062465.34	UCART1	36.04
85	609777.48	4062465.34	UCART1	36.03
86	609802.48	4062465.34	UCART1	36.00
87	609827.48	4062465.34	UCART1	37.62
88	609852.48	4062465.34	UCART1	39.25
89	609877.48	4062465.34	UCART1	40.43
90	609902.48	4062465.34	UCART1	41.29
91	609927.48	4062465.34	UCART1	41.95
92	609952.48	4062465.34	UCART1	41.92
93	609977.48	4062465.34	UCART1	41.13
94	610002.48	4062465.34	UCART1	40.30
95	610027.48	4062465.34	UCART1	39.96
96	610052.48	4062465.34	UCART1	39.96
97	610077.48	4062465.34	UCART1	39.97
98	610102.48	4062465.34	UCART1	40.00
99	610127.48	4062465.34	UCART1	40.86
100	610152.48	4062465.34	UCART1	41.70
101	610177.48	4062465.34	UCART1	43.50
102	610202.48	4062465.34	UCART1	45.65
103	610227.48	4062465.34	UCART1	47.31
104	610252.48	4062465.34	UCART1	48.91
105	610277.48	4062465.34	UCART1	48.92
106	610302.48	4062465.34	UCART1	46.94

# Receptor Pathway

AERMOD

107	610327.48	4062465.34	UCART1	44.95
108	610352.48	4062465.34	UCART1	43.63
109	610377.48	4062465.34	UCART1	42.80
110	610402.48	4062465.34	UCART1	41.97
111	610427.48	4062465.34	UCART1	39.58
112	609527.48	4062490.34	UCART1	30.62
113	609552.48	4062490.34	UCART1	32.89
114	609577.48	4062490.34	UCART1	33.88
115	609602.48	4062490.34	UCART1	33.86
116	609627.48	4062490.34	UCART1	34.03
117	609652.48	4062490.34	UCART1	34.21
118	609677.48	4062490.34	UCART1	35.03
119	609702.48	4062490.34	UCART1	35.21
120	609727.48	4062490.34	UCART1	35.60
121	609752.48	4062490.34	UCART1	36.00
122	609777.48	4062490.34	UCART1	36.13
123	609802.48	4062490.34	UCART1	36.79
124	609827.48	4062490.34	UCART1	38.45
125	609852.48	4062490.34	UCART1	40.64
126	609877.48	4062490.34	UCART1	42.08
127	609902.48	4062490.34	UCART1	42.65
128	609927.48	4062490.34	UCART1	42.79
129	609952.48	4062490.34	UCART1	42.79
130	609977.48	4062490.34	UCART1	41.97
131	610002.48	4062490.34	UCART1	41.13
132	610027.48	4062490.34	UCART1	40.79
133	610052.48	4062490.34	UCART1	40.79
134	610077.48	4062490.34	UCART1	40.79
135	610102.48	4062490.34	UCART1	40.79
136	610127.48	4062490.34	UCART1	40.96
137	610152.48	4062490.34	UCART1	41.66
138	610177.48	4062490.34	UCART1	43.09
139	610202.48	4062490.34	UCART1	45.38
140	610227.48	4062490.34	UCART1	47.99
141	610252.48	4062490.34	UCART1	48.99
142	610277.48	4062490.34	UCART1	49.00
143	610302.48	4062490.34	UCART1	47.54
144	610327.48	4062490.34	UCART1	46.20

# Receptor Pathway

AERMOD

145	610352.48	4062490.34	UCART1	45.26
146	610377.48	4062490.34	UCART1	44.30
147	610402.48	4062490.34	UCART1	42.80
148	610427.48	4062490.34	UCART1	40.31
149	609527.48	4062515.34	UCART1	33.63
150	609552.48	4062515.34	UCART1	34.70
151	609577.48	4062515.34	UCART1	35.12
152	609602.48	4062515.34	UCART1	35.25
153	609627.48	4062515.34	UCART1	35.05
154	609652.48	4062515.34	UCART1	34.01
155	609677.48	4062515.34	UCART1	34.83
156	609702.48	4062515.34	UCART1	35.00
157	609727.48	4062515.34	UCART1	35.80
158	609752.48	4062515.34	UCART1	36.63
159	609777.48	4062515.34	UCART1	36.69
160	609802.48	4062515.34	UCART1	37.00
161	609827.48	4062515.34	UCART1	38.14
162	609852.48	4062515.34	UCART1	40.77
163	609877.48	4062515.34	UCART1	42.49
164	609902.48	4062515.34	UCART1	43.00
165	609927.48	4062515.34	UCART1	43.10
166	609952.48	4062515.34	UCART1	43.62
167	609977.48	4062515.34	UCART1	42.80
168	610002.48	4062515.34	UCART1	41.97
169	610027.48	4062515.34	UCART1	41.32
170	610052.48	4062515.34	UCART1	41.20
171	610077.48	4062515.34	UCART1	41.63
172	610102.48	4062515.34	UCART1	41.63
173	610127.48	4062515.34	UCART1	41.63
174	610152.48	4062515.34	UCART1	42.29
175	610177.48	4062515.34	UCART1	43.92
176	610202.48	4062515.34	UCART1	46.36
177	610227.48	4062515.34	UCART1	48.69
178	610252.48	4062515.34	UCART1	49.00
179	610277.48	4062515.34	UCART1	49.52
180	610302.48	4062515.34	UCART1	48.30
181	610327.48	4062515.34	UCART1	46.51
182	610352.48	4062515.34	UCART1	45.05

# Receptor Pathway

AERMOD

183	610377.48	4062515.34	UCART1	44.15
184	610402.48	4062515.34	UCART1	43.01
185	610427.48	4062515.34	UCART1	38.97
186	609527.48	4062540.34	UCART1	35.47
187	609552.48	4062540.34	UCART1	35.95
188	609577.48	4062540.34	UCART1	36.19
189	609602.48	4062540.34	UCART1	36.46
190	609627.48	4062540.34	UCART1	36.14
191	609652.48	4062540.34	UCART1	34.47
192	609677.48	4062540.34	UCART1	35.29
193	609702.48	4062540.34	UCART1	35.16
194	609727.48	4062540.34	UCART1	35.53
195	609752.48	4062540.34	UCART1	36.23
196	609777.48	4062540.34	UCART1	36.61
197	609802.48	4062540.34	UCART1	37.00
198	609827.48	4062540.34	UCART1	38.59
199	609852.48	4062540.34	UCART1	40.95
200	609877.48	4062540.34	UCART1	42.27
201	609902.48	4062540.34	UCART1	42.69
202	609927.48	4062540.34	UCART1	43.23
203	609952.48	4062540.34	UCART1	44.45
204	609977.48	4062540.34	UCART1	43.63
205	610002.48	4062540.34	UCART1	42.80
206	610027.48	4062540.34	UCART1	41.97
207	610052.48	4062540.34	UCART1	41.64
208	610077.48	4062540.34	UCART1	42.07
209	610102.48	4062540.34	UCART1	42.46
210	610127.48	4062540.34	UCART1	42.46
211	610152.48	4062540.34	UCART1	43.12
212	610177.48	4062540.34	UCART1	44.71
213	610202.48	4062540.34	UCART1	46.98
214	610227.48	4062540.34	UCART1	49.00
215	610252.48	4062540.34	UCART1	49.00
216	610277.48	4062540.34	UCART1	48.69
217	610302.48	4062540.34	UCART1	47.30
218	610327.48	4062540.34	UCART1	45.37
219	610352.48	4062540.34	UCART1	43.60
220	610377.48	4062540.34	UCART1	42.17

# Receptor Pathway

AERMOD

221	610402.48	4062540.34	UCART1	39.80
222	610427.48	4062540.34	UCART1	37.10
223	609527.48	4062565.34	UCART1	35.95
224	609552.48	4062565.34	UCART1	36.95
225	609577.48	4062565.34	UCART1	37.29
226	609602.48	4062565.34	UCART1	37.20
227	609627.48	4062565.34	UCART1	36.73
228	609652.48	4062565.34	UCART1	35.30
229	609677.48	4062565.34	UCART1	35.88
230	609702.48	4062565.34	UCART1	35.53
231	609727.48	4062565.34	UCART1	35.29
232	609752.48	4062565.34	UCART1	35.52
233	609777.48	4062565.34	UCART1	36.30
234	609802.48	4062565.34	UCART1	37.87
235	609827.48	4062565.34	UCART1	40.36
236	609852.48	4062565.34	UCART1	42.01
237	609877.48	4062565.34	UCART1	42.73
238	609902.48	4062565.34	UCART1	43.21
239	609927.48	4062565.34	UCART1	44.15
240	609952.48	4062565.34	UCART1	45.57
241	609977.48	4062565.34	UCART1	44.76
242	610002.48	4062565.34	UCART1	43.73
243	610027.48	4062565.34	UCART1	42.80
244	610052.48	4062565.34	UCART1	42.29
245	610077.48	4062565.34	UCART1	42.41
246	610102.48	4062565.34	UCART1	43.00
247	610127.48	4062565.34	UCART1	43.00
248	610152.48	4062565.34	UCART1	43.85
249	610177.48	4062565.34	UCART1	45.14
250	610202.48	4062565.34	UCART1	46.60
251	610227.48	4062565.34	UCART1	47.78
252	610252.48	4062565.34	UCART1	47.54
253	610277.48	4062565.34	UCART1	44.43
254	610302.48	4062565.34	UCART1	43.23
255	610327.48	4062565.34	UCART1	42.11
256	610352.48	4062565.34	UCART1	40.69
257	610377.48	4062565.34	UCART1	38.97
258	610402.48	4062565.34	UCART1	36.02

# Receptor Pathway

AERMOD

259	610427.48	4062565.34	UCART1	36.00
260	609527.48	4062590.34	UCART1	36.68
261	609552.48	4062590.34	UCART1	37.66
262	609577.48	4062590.34	UCART1	38.06
263	609602.48	4062590.34	UCART1	37.80
264	609627.48	4062590.34	UCART1	36.97
265	609652.48	4062590.34	UCART1	36.13
266	609677.48	4062590.34	UCART1	36.13
267	609702.48	4062590.34	UCART1	36.21
268	609727.48	4062590.34	UCART1	36.31
269	609752.48	4062590.34	UCART1	36.42
270	609777.48	4062590.34	UCART1	37.11
271	609802.48	4062590.34	UCART1	40.23
272	609827.48	4062590.34	UCART1	42.84
273	609852.48	4062590.34	UCART1	44.04
274	609877.48	4062590.34	UCART1	44.87
275	609902.48	4062590.34	UCART1	45.66
276	609927.48	4062590.34	UCART1	46.41
277	609952.48	4062590.34	UCART1	47.25
278	609977.48	4062590.34	UCART1	46.42
279	610002.48	4062590.34	UCART1	44.93
280	610027.48	4062590.34	UCART1	43.70
281	610052.48	4062590.34	UCART1	43.13
282	610077.48	4062590.34	UCART1	43.13
283	610102.48	4062590.34	UCART1	43.13
284	610127.48	4062590.34	UCART1	43.02
285	610152.48	4062590.34	UCART1	44.15
286	610177.48	4062590.34	UCART1	45.24
287	610202.48	4062590.34	UCART1	45.42
288	610227.48	4062590.34	UCART1	44.51
289	610252.48	4062590.34	UCART1	43.25
290	610277.48	4062590.34	UCART1	37.36
291	610302.48	4062590.34	UCART1	37.20
292	610327.48	4062590.34	UCART1	37.32
293	610352.48	4062590.34	UCART1	36.59
294	610377.48	4062590.34	UCART1	36.02
295	610402.48	4062590.34	UCART1	36.13
296	610427.48	4062590.34	UCART1	36.13

# Receptor Pathway

AERMOD

297	609527.48	4062615.34	UCART1	36.82
298	609552.48	4062615.34	UCART1	37.66
299	609577.48	4062615.34	UCART1	38.47
300	609602.48	4062615.34	UCART1	38.63
301	609627.48	4062615.34	UCART1	37.80
302	609652.48	4062615.34	UCART1	36.97
303	609677.48	4062615.34	UCART1	36.96
304	609702.48	4062615.34	UCART1	37.59
305	609727.48	4062615.34	UCART1	38.39
306	609752.48	4062615.34	UCART1	39.19
307	609777.48	4062615.34	UCART1	40.17
308	609802.48	4062615.34	UCART1	41.91
309	609827.48	4062615.34	UCART1	45.19
310	609852.48	4062615.34	UCART1	46.54
311	609877.48	4062615.34	UCART1	47.37
312	609902.48	4062615.34	UCART1	47.89
313	609927.48	4062615.34	UCART1	48.08
314	609952.48	4062615.34	UCART1	48.91
315	609977.48	4062615.34	UCART1	48.09
316	610002.48	4062615.34	UCART1	46.60
317	610027.48	4062615.34	UCART1	44.95
318	610052.48	4062615.34	UCART1	43.96
319	610077.48	4062615.34	UCART1	43.96
320	610102.48	4062615.34	UCART1	43.96
321	610127.48	4062615.34	UCART1	43.17
322	610152.48	4062615.34	UCART1	43.05
323	610177.48	4062615.34	UCART1	43.58
324	610202.48	4062615.34	UCART1	43.75
325	610227.48	4062615.34	UCART1	42.30
326	610252.48	4062615.34	UCART1	38.27
327	610277.48	4062615.34	UCART1	37.18
328	610302.48	4062615.34	UCART1	36.38
329	610327.48	4062615.34	UCART1	36.06
330	610352.48	4062615.34	UCART1	36.03
331	610377.48	4062615.34	UCART1	36.15
332	610402.48	4062615.34	UCART1	36.95
333	610427.48	4062615.34	UCART1	36.96
334	609527.48	4062640.34	UCART1	37.62

# Receptor Pathway

AERMOD

335	609552.48	4062640.34	UCART1	38.45
336	609577.48	4062640.34	UCART1	39.29
337	609602.48	4062640.34	UCART1	39.72
338	609627.48	4062640.34	UCART1	39.42
339	609652.48	4062640.34	UCART1	38.59
340	609677.48	4062640.34	UCART1	38.59
341	609702.48	4062640.34	UCART1	39.77
342	609727.48	4062640.34	UCART1	41.66
343	609752.48	4062640.34	UCART1	43.29
344	609777.48	4062640.34	UCART1	44.28
345	609802.48	4062640.34	UCART1	45.95
346	609827.48	4062640.34	UCART1	47.96
347	609852.48	4062640.34	UCART1	49.04
348	609877.48	4062640.34	UCART1	49.48
349	609902.48	4062640.34	UCART1	49.59
350	609927.48	4062640.34	UCART1	49.49
351	609952.48	4062640.34	UCART1	49.00
352	609977.48	4062640.34	UCART1	48.17
353	610002.48	4062640.34	UCART1	47.20
354	610027.48	4062640.34	UCART1	45.80
355	610052.48	4062640.34	UCART1	44.79
356	610077.48	4062640.34	UCART1	44.67
357	610102.48	4062640.34	UCART1	44.00
358	610127.48	4062640.34	UCART1	42.52
359	610152.48	4062640.34	UCART1	41.68
360	610177.48	4062640.34	UCART1	40.73
361	610202.48	4062640.34	UCART1	39.45
362	610227.48	4062640.34	UCART1	38.21
363	610252.48	4062640.34	UCART1	38.00
364	610277.48	4062640.34	UCART1	36.52
365	610302.48	4062640.34	UCART1	36.07
366	610327.48	4062640.34	UCART1	36.00
367	610352.48	4062640.34	UCART1	36.00
368	610377.48	4062640.34	UCART1	36.16
369	610402.48	4062640.34	UCART1	36.99
370	610427.48	4062640.34	UCART1	37.00
371	609527.48	4062665.34	UCART1	38.45
372	609552.48	4062665.34	UCART1	39.29

# Receptor Pathway

AERMOD

373	609577.48	4062665.34	UCART1	40.12
374	609602.48	4062665.34	UCART1	40.83
375	609627.48	4062665.34	UCART1	41.09
376	609652.48	4062665.34	UCART1	40.26
377	609677.48	4062665.34	UCART1	40.25
378	609702.48	4062665.34	UCART1	41.16
379	609727.48	4062665.34	UCART1	43.73
380	609752.48	4062665.34	UCART1	46.21
381	609777.48	4062665.34	UCART1	47.20
382	609802.48	4062665.34	UCART1	48.87
383	609827.48	4062665.34	UCART1	49.50
384	609852.48	4062665.34	UCART1	49.87
385	609877.48	4062665.34	UCART1	50.00
386	609902.48	4062665.34	UCART1	50.20
387	609927.48	4062665.34	UCART1	50.36
388	609952.48	4062665.34	UCART1	49.01
389	609977.48	4062665.34	UCART1	48.17
390	610002.48	4062665.34	UCART1	46.10
391	610027.48	4062665.34	UCART1	44.75
392	610252.48	4062665.34	UCART1	37.99
393	610277.48	4062665.34	UCART1	37.38
394	610302.48	4062665.34	UCART1	37.67
395	610327.48	4062665.34	UCART1	37.88
396	610352.48	4062665.34	UCART1	38.08
397	610377.48	4062665.34	UCART1	38.56
398	610402.48	4062665.34	UCART1	38.88
399	610427.48	4062665.34	UCART1	39.40
400	609527.48	4062690.34	UCART1	38.37
401	609552.48	4062690.34	UCART1	39.50
402	609577.48	4062690.34	UCART1	40.72
403	609602.48	4062690.34	UCART1	41.79
404	609627.48	4062690.34	UCART1	42.37
405	609652.48	4062690.34	UCART1	41.92
406	609677.48	4062690.34	UCART1	41.92
407	609702.48	4062690.34	UCART1	42.88
408	609727.48	4062690.34	UCART1	45.62
409	609752.48	4062690.34	UCART1	48.10
410	609777.48	4062690.34	UCART1	48.63

# Receptor Pathway

AERMOD

411	609802.48	4062690.34	UCART1	49.53
412	609827.48	4062690.34	UCART1	49.54
413	610277.48	4062690.34	UCART1	39.68
414	610302.48	4062690.34	UCART1	40.19
415	610327.48	4062690.34	UCART1	40.38
416	610352.48	4062690.34	UCART1	40.70
417	610377.48	4062690.34	UCART1	41.38
418	610402.48	4062690.34	UCART1	41.38
419	610427.48	4062690.34	UCART1	41.83
420	609527.48	4062715.34	UCART1	37.48
421	609552.48	4062715.34	UCART1	39.03
422	609577.48	4062715.34	UCART1	40.70
423	609602.48	4062715.34	UCART1	42.13
424	609627.48	4062715.34	UCART1	43.09
425	609652.48	4062715.34	UCART1	43.58
426	609677.48	4062715.34	UCART1	44.07
427	609702.48	4062715.34	UCART1	45.49
428	609727.48	4062715.34	UCART1	47.57
429	609752.48	4062715.34	UCART1	49.10
430	610277.48	4062715.34	UCART1	41.95
431	610302.48	4062715.34	UCART1	42.29
432	610327.48	4062715.34	UCART1	42.29
433	610352.48	4062715.34	UCART1	42.52
434	610377.48	4062715.34	UCART1	43.00
435	610402.48	4062715.34	UCART1	43.00
436	610427.48	4062715.34	UCART1	43.00
437	609527.48	4062740.34	UCART1	36.63
438	609552.48	4062740.34	UCART1	38.24
439	609577.48	4062740.34	UCART1	39.86
440	609602.48	4062740.34	UCART1	41.53
441	609627.48	4062740.34	UCART1	43.17
442	609652.48	4062740.34	UCART1	44.74
443	609677.48	4062740.34	UCART1	46.51
444	609702.48	4062740.34	UCART1	48.36
445	609727.48	4062740.34	UCART1	49.06
446	610277.48	4062740.34	UCART1	42.55
447	610302.48	4062740.34	UCART1	42.87
448	610327.48	4062740.34	UCART1	42.94

# Receptor Pathway

AERMOD

449	610352.48	4062740.34	UCART1	42.96
450	610377.48	4062740.34	UCART1	42.87
451	610402.48	4062740.34	UCART1	42.87
452	610427.48	4062740.34	UCART1	42.87
453	609527.48	4062765.34	UCART1	36.49
454	609552.48	4062765.34	UCART1	37.69
455	609577.48	4062765.34	UCART1	39.03
456	609602.48	4062765.34	UCART1	40.70
457	609627.48	4062765.34	UCART1	42.21
458	609652.48	4062765.34	UCART1	43.07
459	609677.48	4062765.34	UCART1	45.53
460	609702.48	4062765.34	UCART1	48.63
461	610277.48	4062765.34	UCART1	41.86
462	610302.48	4062765.34	UCART1	42.04
463	610327.48	4062765.34	UCART1	42.51
464	610352.48	4062765.34	UCART1	42.69
465	610377.48	4062765.34	UCART1	42.04
466	610402.48	4062765.34	UCART1	42.04
467	610427.48	4062765.34	UCART1	42.04
468	609527.48	4062790.34	UCART1	35.83
469	609552.48	4062790.34	UCART1	36.87
470	609577.48	4062790.34	UCART1	38.20
471	609602.48	4062790.34	UCART1	39.86
472	609627.48	4062790.34	UCART1	41.37
473	609652.48	4062790.34	UCART1	42.20
474	609677.48	4062790.34	UCART1	44.03
475	609702.48	4062790.34	UCART1	45.49
476	610302.48	4062790.34	UCART1	41.21
477	610327.48	4062790.34	UCART1	41.31
478	610352.48	4062790.34	UCART1	41.09
479	610377.48	4062790.34	UCART1	40.29
480	610402.48	4062790.34	UCART1	39.63
481	610427.48	4062790.34	UCART1	39.62
482	609527.48	4062815.34	UCART1	35.24
483	609552.48	4062815.34	UCART1	36.45
484	609577.48	4062815.34	UCART1	37.68
485	609602.48	4062815.34	UCART1	39.03
486	609627.48	4062815.34	UCART1	40.53

# Receptor Pathway

AERMOD

487	609652.48	4062815.34	UCART1	41.37
488	609677.48	4062815.34	UCART1	42.51
489	610302.48	4062815.34	UCART1	40.37
490	610327.48	4062815.34	UCART1	40.06
491	610352.48	4062815.34	UCART1	39.42
492	610377.48	4062815.34	UCART1	38.59
493	610402.48	4062815.34	UCART1	37.75
494	610427.48	4062815.34	UCART1	37.75
495	609527.48	4062840.34	UCART1	35.38
496	609552.48	4062840.34	UCART1	36.48
497	609577.48	4062840.34	UCART1	37.49
498	609602.48	4062840.34	UCART1	38.35
499	609627.48	4062840.34	UCART1	39.32
500	609652.48	4062840.34	UCART1	40.53
501	609677.48	4062840.34	UCART1	40.61
502	610302.48	4062840.34	UCART1	39.54
503	610327.48	4062840.34	UCART1	39.05
504	610352.48	4062840.34	UCART1	38.21
505	610377.48	4062840.34	UCART1	37.45
506	610402.48	4062840.34	UCART1	37.00
507	610427.48	4062840.34	UCART1	37.00
508	609527.48	4062865.34	UCART1	35.83
509	609552.48	4062865.34	UCART1	36.66
510	609577.48	4062865.34	UCART1	37.49
511	609602.48	4062865.34	UCART1	38.00
512	609627.48	4062865.34	UCART1	38.23
513	609652.48	4062865.34	UCART1	39.41
514	610302.48	4062865.34	UCART1	38.71
515	610327.48	4062865.34	UCART1	38.21
516	610352.48	4062865.34	UCART1	37.48
517	610377.48	4062865.34	UCART1	37.00
518	610402.48	4062865.34	UCART1	37.00
519	610427.48	4062865.34	UCART1	37.00
520	609527.48	4062890.34	UCART1	35.85
521	609552.48	4062890.34	UCART1	36.58
522	609577.48	4062890.34	UCART1	37.37
523	609602.48	4062890.34	UCART1	37.87
524	609627.48	4062890.34	UCART1	37.83

# Receptor Pathway

AERMOD

525	609652.48	4062890.34	UCART1	37.62
526	610327.48	4062890.34	UCART1	37.51
527	610352.48	4062890.34	UCART1	37.00
528	610377.48	4062890.34	UCART1	37.00
529	610402.48	4062890.34	UCART1	37.00
530	610427.48	4062890.34	UCART1	36.90
531	609527.48	4062915.34	UCART1	35.99
532	609552.48	4062915.34	UCART1	36.03
533	609577.48	4062915.34	UCART1	36.53
534	609602.48	4062915.34	UCART1	37.04
535	609627.48	4062915.34	UCART1	36.73
536	610327.48	4062915.34	UCART1	37.51
537	610352.48	4062915.34	UCART1	37.00
538	610377.48	4062915.34	UCART1	37.00
539	610402.48	4062915.34	UCART1	37.00
540	610427.48	4062915.34	UCART1	36.21
541	609527.48	4062940.34	UCART1	36.66
542	609552.48	4062940.34	UCART1	35.75
543	609577.48	4062940.34	UCART1	35.31
544	609602.48	4062940.34	UCART1	34.38
545	609627.48	4062940.34	UCART1	32.05
546	610327.48	4062940.34	UCART1	37.10
547	610352.48	4062940.34	UCART1	37.00
548	610377.48	4062940.34	UCART1	37.00
549	610402.48	4062940.34	UCART1	37.00
550	610427.48	4062940.34	UCART1	36.17
551	609527.48	4062965.34	UCART1	36.20
552	609552.48	4062965.34	UCART1	35.05
553	609577.48	4062965.34	UCART1	33.45
554	609602.48	4062965.34	UCART1	31.80
555	610352.48	4062965.34	UCART1	37.00
556	610377.48	4062965.34	UCART1	37.00
557	610402.48	4062965.34	UCART1	37.00
558	610427.48	4062965.34	UCART1	36.69
559	609527.48	4062990.34	UCART1	34.91
560	609552.48	4062990.34	UCART1	33.76
561	609577.48	4062990.34	UCART1	31.83
562	609602.48	4062990.34	UCART1	30.36

# Receptor Pathway

AERMOD

563	610352.48	4062990.34	UCART1	36.54
564	610377.48	4062990.34	UCART1	36.61
565	610402.48	4062990.34	UCART1	37.00
566	610427.48	4062990.34	UCART1	37.00
567	609527.48	4063015.34	UCART1	33.53
568	609552.48	4063015.34	UCART1	32.77
569	609577.48	4063015.34	UCART1	31.45
570	610352.48	4063015.34	UCART1	36.00
571	610377.48	4063015.34	UCART1	36.16
572	610402.48	4063015.34	UCART1	36.99
573	610427.48	4063015.34	UCART1	37.00
574	609527.48	4063040.34	UCART1	32.70
575	609552.48	4063040.34	UCART1	32.79
576	609577.48	4063040.34	UCART1	32.38
577	610352.48	4063040.34	UCART1	36.04
578	610377.48	4063040.34	UCART1	36.27
579	610402.48	4063040.34	UCART1	36.99
580	610427.48	4063040.34	UCART1	37.00
581	609527.48	4063065.34	UCART1	31.87
582	609552.48	4063065.34	UCART1	31.41
583	610377.48	4063065.34	UCART1	36.97
584	610402.48	4063065.34	UCART1	37.00
585	610427.48	4063065.34	UCART1	37.00
586	609527.48	4063090.34	UCART1	31.17
587	610377.48	4063090.34	UCART1	36.33
588	610402.48	4063090.34	UCART1	37.00
589	610427.48	4063090.34	UCART1	37.00
590	609527.48	4063115.34	UCART1	30.37
591	610377.48	4063115.34	UCART1	36.16
592	610402.48	4063115.34	UCART1	36.99
593	610427.48	4063115.34	UCART1	37.00
594	609752.48	4063140.34	UCART1	30.15
595	610402.48	4063140.34	UCART1	36.99
596	610427.48	4063140.34	UCART1	37.00
597	609677.48	4063165.34	UCART1	30.12
598	609702.48	4063165.34	UCART1	30.00
599	609727.48	4063165.34	UCART1	30.00
600	609752.48	4063165.34	UCART1	30.42

# Receptor Pathway

AERMOD

601	610402.48	4063165.34	UCART1	37.00
602	610427.48	4063165.34	UCART1	37.00
603	609602.48	4063190.34	UCART1	30.00
604	609627.48	4063190.34	UCART1	30.00
605	609652.48	4063190.34	UCART1	30.00
606	609677.48	4063190.34	UCART1	30.00
607	609702.48	4063190.34	UCART1	30.00
608	609727.48	4063190.34	UCART1	30.00
609	609752.48	4063190.34	UCART1	30.57
610	609777.48	4063190.34	UCART1	32.35
611	610327.48	4063190.34	UCART1	36.00
612	610352.48	4063190.34	UCART1	36.33
613	610377.48	4063190.34	UCART1	37.00
614	610402.48	4063190.34	UCART1	37.00
615	610427.48	4063190.34	UCART1	37.00
616	609527.48	4063215.34	UCART1	31.79
617	609552.48	4063215.34	UCART1	30.67
618	609577.48	4063215.34	UCART1	30.00
619	609602.48	4063215.34	UCART1	30.00
620	609627.48	4063215.34	UCART1	30.00
621	609652.48	4063215.34	UCART1	30.00
622	609677.48	4063215.34	UCART1	30.00
623	609702.48	4063215.34	UCART1	30.00
624	609727.48	4063215.34	UCART1	30.00
625	609752.48	4063215.34	UCART1	30.03
626	609777.48	4063215.34	UCART1	30.42
627	610252.48	4063215.34	UCART1	36.01
628	610277.48	4063215.34	UCART1	36.00
629	610302.48	4063215.34	UCART1	36.00
630	610327.48	4063215.34	UCART1	36.00
631	610352.48	4063215.34	UCART1	36.33
632	610377.48	4063215.34	UCART1	37.00
633	610402.48	4063215.34	UCART1	37.00
634	610427.48	4063215.34	UCART1	37.00
635	609527.48	4063240.34	UCART1	31.17
636	609552.48	4063240.34	UCART1	30.41
637	609577.48	4063240.34	UCART1	30.00
638	609602.48	4063240.34	UCART1	30.00

# Receptor Pathway

AERMOD

639	609627.48	4063240.34	UCART1	30.00
640	609652.48	4063240.34	UCART1	30.00
641	609677.48	4063240.34	UCART1	30.00
642	609702.48	4063240.34	UCART1	30.00
643	609727.48	4063240.34	UCART1	30.00
644	609752.48	4063240.34	UCART1	30.00
645	609777.48	4063240.34	UCART1	30.07
646	610177.48	4063240.34	UCART1	36.39
647	610202.48	4063240.34	UCART1	36.86
648	610227.48	4063240.34	UCART1	36.84
649	610252.48	4063240.34	UCART1	36.01
650	610277.48	4063240.34	UCART1	35.34
651	610302.48	4063240.34	UCART1	35.73
652	610327.48	4063240.34	UCART1	36.00
653	610352.48	4063240.34	UCART1	36.33
654	610377.48	4063240.34	UCART1	37.00
655	610402.48	4063240.34	UCART1	37.00
656	610427.48	4063240.34	UCART1	37.66
657	609527.48	4063265.34	UCART1	31.00
658	609552.48	4063265.34	UCART1	30.34
659	609577.48	4063265.34	UCART1	30.00
660	609602.48	4063265.34	UCART1	30.00
661	609627.48	4063265.34	UCART1	30.00
662	609652.48	4063265.34	UCART1	30.00
663	609677.48	4063265.34	UCART1	30.00
664	609702.48	4063265.34	UCART1	30.00
665	609727.48	4063265.34	UCART1	30.00
666	609752.48	4063265.34	UCART1	30.00
667	609777.48	4063265.34	UCART1	30.00
668	609802.48	4063265.34	UCART1	30.00
669	610077.48	4063265.34	UCART1	34.16
670	610102.48	4063265.34	UCART1	34.99
671	610127.48	4063265.34	UCART1	35.52
672	610152.48	4063265.34	UCART1	35.87
673	610177.48	4063265.34	UCART1	36.49
674	610202.48	4063265.34	UCART1	36.80
675	610227.48	4063265.34	UCART1	36.31
676	610252.48	4063265.34	UCART1	36.00

# Receptor Pathway

AERMOD

677	610277.48	4063265.34	UCART1	35.17
678	610302.48	4063265.34	UCART1	35.66
679	610327.48	4063265.34	UCART1	36.31
680	610352.48	4063265.34	UCART1	36.75
681	610377.48	4063265.34	UCART1	37.00
682	610402.48	4063265.34	UCART1	37.00
683	610427.48	4063265.34	UCART1	37.31
684	609527.48	4063290.34	UCART1	31.00
685	609552.48	4063290.34	UCART1	30.34
686	609577.48	4063290.34	UCART1	30.00
687	609602.48	4063290.34	UCART1	30.00
688	609627.48	4063290.34	UCART1	30.00
689	609652.48	4063290.34	UCART1	30.00
690	609677.48	4063290.34	UCART1	30.00
691	609702.48	4063290.34	UCART1	30.00
692	609727.48	4063290.34	UCART1	30.00
693	609752.48	4063290.34	UCART1	30.00
694	609777.48	4063290.34	UCART1	30.00
695	609802.48	4063290.34	UCART1	30.00
696	610002.48	4063290.34	UCART1	32.36
697	610027.48	4063290.34	UCART1	32.77
698	610052.48	4063290.34	UCART1	33.33
699	610077.48	4063290.34	UCART1	34.16
700	610102.48	4063290.34	UCART1	34.99
701	610127.48	4063290.34	UCART1	35.45
702	610152.48	4063290.34	UCART1	35.84
703	610177.48	4063290.34	UCART1	36.27
704	610202.48	4063290.34	UCART1	36.36
705	610227.48	4063290.34	UCART1	35.93
706	610252.48	4063290.34	UCART1	35.54
707	610277.48	4063290.34	UCART1	35.09
708	610302.48	4063290.34	UCART1	35.66
709	610327.48	4063290.34	UCART1	36.27
710	610352.48	4063290.34	UCART1	36.69
711	610377.48	4063290.34	UCART1	37.00
712	610402.48	4063290.34	UCART1	37.00
713	610427.48	4063290.34	UCART1	37.00
714	609527.48	4063315.34	UCART1	30.71

# Receptor Pathway

AERMOD

715	609552.48	4063315.34	UCART1	30.24
716	609577.48	4063315.34	UCART1	30.00
717	609602.48	4063315.34	UCART1	30.00
718	609627.48	4063315.34	UCART1	30.00
719	609652.48	4063315.34	UCART1	30.00
720	609677.48	4063315.34	UCART1	30.00
721	609702.48	4063315.34	UCART1	30.00
722	609727.48	4063315.34	UCART1	30.00
723	609752.48	4063315.34	UCART1	30.00
724	609777.48	4063315.34	UCART1	30.00
725	609802.48	4063315.34	UCART1	30.00
726	609902.48	4063315.34	UCART1	30.10
727	609927.48	4063315.34	UCART1	30.45
728	609952.48	4063315.34	UCART1	31.29
729	609977.48	4063315.34	UCART1	32.12
730	610002.48	4063315.34	UCART1	32.29
731	610027.48	4063315.34	UCART1	32.64
732	610052.48	4063315.34	UCART1	33.33
733	610077.48	4063315.34	UCART1	34.16
734	610102.48	4063315.34	UCART1	34.99
735	610127.48	4063315.34	UCART1	35.00
736	610152.48	4063315.34	UCART1	35.47
737	610177.48	4063315.34	UCART1	35.71
738	610202.48	4063315.34	UCART1	35.71
739	610227.48	4063315.34	UCART1	35.55
740	610252.48	4063315.34	UCART1	34.71
741	610277.48	4063315.34	UCART1	34.71
742	610302.48	4063315.34	UCART1	35.37
743	610327.48	4063315.34	UCART1	35.71
744	610352.48	4063315.34	UCART1	36.03
745	610377.48	4063315.34	UCART1	36.75
746	610402.48	4063315.34	UCART1	37.00
747	610427.48	4063315.34	UCART1	37.00
748	609480.25	4063221.44	FENCEPRI	31.00
749	609761.10	4062699.46	FENCEPRI	48.67
750	610238.82	4062641.67	FENCEPRI	37.99
751	610389.64	4063171.77	FENCEPRI	36.79
752	609827.02	4063336.13	FENCEPRI	30.00

# Receptor Pathway

AERMOD

753	609763.81	4063131.13	FENCEPRI	30.11
754	609480.25	4063221.44	FENCEPRI	31.00
755	609761.10	4062699.46	FENCEPRI	48.67
756	610238.82	4062641.67	FENCEPRI	37.99
757	610389.64	4063171.77	FENCEPRI	36.79
758	609827.02	4063336.13	FENCEPRI	30.00
759	609763.81	4063131.13	FENCEPRI	30.11
760	609491.95	4063199.69	FENCEINT	30.44
761	609503.65	4063177.94	FENCEINT	30.03
762	609515.36	4063156.19	FENCEINT	30.42
763	609527.06	4063134.44	FENCEINT	30.21
764	609538.76	4063112.69	FENCEINT	30.46
765	609550.46	4063090.95	FENCEINT	31.08
766	609562.16	4063069.20	FENCEINT	31.02
767	609573.87	4063047.45	FENCEINT	32.17
768	609585.57	4063025.70	FENCEINT	31.60
769	609597.27	4063003.95	FENCEINT	30.07
770	609608.97	4062982.20	FENCEINT	30.37
771	609620.68	4062960.45	FENCEINT	30.71
772	609632.38	4062938.70	FENCEINT	32.16
773	609644.08	4062916.95	FENCEINT	35.50
774	609655.78	4062895.20	FENCEINT	37.03
775	609667.48	4062873.45	FENCEINT	38.38
776	609679.19	4062851.70	FENCEINT	39.56
777	609690.89	4062829.96	FENCEINT	41.39
778	609702.59	4062808.21	FENCEINT	43.37
779	609714.29	4062786.46	FENCEINT	46.63
780	609725.99	4062764.71	FENCEINT	49.52
781	609737.70	4062742.96	FENCEINT	49.04
782	609749.40	4062721.21	FENCEINT	49.11
783	609784.99	4062696.57	FENCEINT	48.94
784	609808.87	4062693.68	FENCEINT	49.43
785	609832.76	4062690.79	FENCEINT	49.53
786	609856.64	4062687.90	FENCEINT	49.62
787	609880.53	4062685.01	FENCEINT	49.72
788	609904.42	4062682.12	FENCEINT	50.21
789	609928.30	4062679.23	FENCEINT	50.55
790	609952.19	4062676.34	FENCEINT	49.03

# Receptor Pathway

AERMOD

791	609976.07	4062673.45	FENCEINT	48.22
792	609999.96	4062670.57	FENCEINT	46.04
793	610023.85	4062667.68	FENCEINT	44.67
794	610047.73	4062664.79	FENCEINT	44.29
795	610071.62	4062661.90	FENCEINT	44.00
796	610095.50	4062659.01	FENCEINT	43.41
797	610119.39	4062656.12	FENCEINT	42.07
798	610143.28	4062653.23	FENCEINT	40.98
799	610167.16	4062650.34	FENCEINT	40.36
800	610191.05	4062647.45	FENCEINT	39.07
801	610214.93	4062644.56	FENCEINT	37.90
802	610245.38	4062664.72	FENCEINT	37.76
803	610251.93	4062687.77	FENCEINT	38.71
804	610258.49	4062710.81	FENCEINT	40.53
805	610265.05	4062733.86	FENCEINT	41.74
806	610271.61	4062756.91	FENCEINT	41.83
807	610278.16	4062779.96	FENCEINT	41.47
808	610284.72	4062803.00	FENCEINT	40.79
809	610291.28	4062826.05	FENCEINT	40.02
810	610297.84	4062849.10	FENCEINT	39.25
811	610304.39	4062872.15	FENCEINT	38.48
812	610310.95	4062895.20	FENCEINT	38.00
813	610317.51	4062918.24	FENCEINT	37.79
814	610324.07	4062941.29	FENCEINT	37.11
815	610330.62	4062964.34	FENCEINT	36.76
816	610337.18	4062987.39	FENCEINT	36.52
817	610343.74	4063010.44	FENCEINT	36.00
818	610350.30	4063033.48	FENCEINT	36.00
819	610356.85	4063056.53	FENCEINT	36.31
820	610363.41	4063079.58	FENCEINT	36.39
821	610369.97	4063102.63	FENCEINT	35.98
822	610376.53	4063125.67	FENCEINT	36.13
823	610383.08	4063148.72	FENCEINT	36.35
824	610366.20	4063178.62	FENCEINT	36.58
825	610342.76	4063185.47	FENCEINT	36.00
826	610319.31	4063192.32	FENCEINT	36.00
827	610295.87	4063199.16	FENCEINT	36.00
828	610272.43	4063206.01	FENCEINT	36.00

# Receptor Pathway

AERMOD

829	610248.99	4063212.86	FENCEINT	36.11
830	610225.54	4063219.71	FENCEINT	36.90
831	610202.10	4063226.56	FENCEINT	36.54
832	610178.66	4063233.41	FENCEINT	36.30
833	610155.22	4063240.25	FENCEINT	35.75
834	610131.77	4063247.10	FENCEINT	35.02
835	610108.33	4063253.95	FENCEINT	35.05
836	610084.89	4063260.80	FENCEINT	34.41
837	610061.45	4063267.65	FENCEINT	33.63
838	610038.00	4063274.50	FENCEINT	33.00
839	610014.56	4063281.34	FENCEINT	32.85
840	609991.12	4063288.19	FENCEINT	32.17
841	609967.68	4063295.04	FENCEINT	31.50
842	609944.23	4063301.89	FENCEINT	30.76
843	609920.79	4063308.74	FENCEINT	30.07
844	609897.35	4063315.59	FENCEINT	30.05
845	609873.91	4063322.43	FENCEINT	30.00
846	609850.46	4063329.28	FENCEINT	30.00
847	609820.00	4063313.35	FENCEINT	30.00
848	609812.97	4063290.57	FENCEINT	30.00
849	609805.95	4063267.80	FENCEINT	30.00
850	609798.93	4063245.02	FENCEINT	30.09
851	609791.90	4063222.24	FENCEINT	31.04
852	609784.88	4063199.46	FENCEINT	32.42
853	609777.86	4063176.69	FENCEINT	32.31
854	609770.83	4063153.91	FENCEINT	30.86
855	609740.18	4063138.66	FENCEINT	30.00
856	609716.55	4063146.18	FENCEINT	30.00
857	609692.92	4063153.71	FENCEINT	30.06
858	609669.29	4063161.23	FENCEINT	30.38
859	609645.66	4063168.76	FENCEINT	30.45
860	609622.03	4063176.29	FENCEINT	30.00
861	609598.40	4063183.81	FENCEINT	30.00
862	609574.77	4063191.34	FENCEINT	30.00
863	609551.14	4063198.86	FENCEINT	30.54
864	609527.51	4063206.39	FENCEINT	31.49
865	609503.88	4063213.91	FENCEINT	30.95

# Receptor Pathway

AERMOD

## Plant Boundary Receptors

### Receptor Groups

Record Number	Group ID	Group Description
1	FENCEPRI	Cartesian plant boundary Primary Receptors
2	FENCEGRD	Receptors generated from Fenceline Grid
3	FENCEINT	Cartesian plant boundary Intermediate Receptors
4	UCART1	Receptors generated from Uniform Cartesian Grid

# Output Pathway

AERMOD

## Tabular Printed Outputs

Short Term Averaging Period	RECTABLE Highest Values Table										MAXTABLE Maximum Values Table	DAYTABLE Daily Values Table
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
1												No
3												No
8												No
24												No

## Contour Plot Files (PLOTFILE)

Path for PLOTFILES: APP-25-00105\_V2.AD

Averaging Period	Source Group ID	High Value	File Name
1	ALL	1st	01H1GALL.PLT
3	ALL	1st	03H1GALL.PLT
8	ALL	1st	08H1GALL.PLT
24	ALL	1st	24H1GALL.PLT
1	1	1st	01H1G001.PLT
3	1	1st	03H1G001.PLT
8	1	1st	08H1G001.PLT
24	1	1st	24H1G001.PLT
1	2	1st	01H1G002.PLT
3	2	1st	03H1G002.PLT
8	2	1st	08H1G002.PLT
24	2	1st	24H1G002.PLT
24	ALL	8th	24H8GALL.PLT
24	1	8th	24H8G001.PLT
24	2	8th	24H8G002.PLT
Annual	ALL	N/A	AN00GALL.PLT
Annual	1	N/A	AN00G001.PLT
Annual	2	N/A	AN00G002.PLT

# Results Summary

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## Concentration - Source Group: 1

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
1-HR	1ST	226.15407	ug/m^3	609928.30	4062679.23	50.55	0.00	50.55	8/27/2015, 23
3-HR	1ST	191.52816	ug/m^3	609725.99	4062764.71	49.52	0.00	49.52	7/22/2017, 24
8-HR	1ST	138.79919	ug/m^3	609679.19	4062851.70	39.56	0.00	50.00	8/27/2015, 8
24-HR	1ST	48.39032	ug/m^3	609655.78	4062895.20	37.03	0.00	38.00	1/5/2015, 24
24-HR	8TH	40.88416	ug/m^3	609679.19	4062851.70	39.56	0.00	50.00	11/13/2017, 24
ANNUAL		8.68572	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	
ANNUAL Y1		10.55148	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	
ANNUAL Y2		8.78811	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	
ANNUAL Y3		9.36213	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	
ANNUAL Y4		9.95967	ug/m^3	609679.19	4062851.70	39.56	0.00	50.00	
ANNUAL Y5		4.89491	ug/m^3	609679.19	4062851.70	39.56	0.00	50.00	

# Results Summary

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Concentration - Source Group: 2									
Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
1-HR	1ST	220.80596	ug/m^3	609714.29	4062786.46	46.63	0.00	50.00	10/16/2018, 21
3-HR	1ST	188.99332	ug/m^3	609725.99	4062764.71	49.52	0.00	49.52	7/22/2017, 24
8-HR	1ST	119.83012	ug/m^3	609679.19	4062851.70	39.56	0.00	50.00	8/27/2015, 8
24-HR	1ST	51.02241	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	11/10/2018, 24
24-HR	8TH	42.10787	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	1/26/2019, 24
ANNUAL		8.85175	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	
ANNUAL Y1		10.70383	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	
ANNUAL Y2		8.95553	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	
ANNUAL Y3		9.51281	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	
ANNUAL Y4		10.13516	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	
ANNUAL Y5		4.95140	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	

# Results Summary

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Concentration - Source Group: ALL									
Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
1-HR	1ST	442.42092	ug/m^3	609725.99	4062764.71	49.52	0.00	49.52	2/19/2017, 22
3-HR	1ST	380.52148	ug/m^3	609725.99	4062764.71	49.52	0.00	49.52	7/22/2017, 24
8-HR	1ST	258.62932	ug/m^3	609679.19	4062851.70	39.56	0.00	50.00	8/27/2015, 8
24-HR	1ST	98.67075	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	11/10/2018, 24
24-HR	8TH	82.69957	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	11/11/2018, 24
ANNUAL		17.53747	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	
ANNUAL Y1		21.25531	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	
ANNUAL Y2		17.74365	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	
ANNUAL Y3		18.87495	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	
ANNUAL Y4		20.01947	ug/m^3	609679.19	4062851.70	39.56	0.00	50.00	
ANNUAL Y5		9.83006	ug/m^3	609667.48	4062873.45	38.38	0.00	50.00	

Attachment 2

Prioritization Score Spreadsheet – Natural Gas Linear Generator

### Name Prioritization Calculator

<b>Applicability</b>	Use to provide a Prioritization score based on the emission potency method. Entries required in yellow areas, output in gray areas.		
Author or updater	Matthew Cegielski	Last Update	December 1, 2022
Revisions (updated OEHHA health database to 8/18/25 version) by	Armando Jimenez	Revised Date	August 18, 2025
Facility:	Monterey One Water		
ID#:			
Project #:	APP-25-00105		
Unit and Process#	Natural Gas Linear Generator (250 KW)		

Use the substance dropdown list in the CAS# Finder to locate CAS# of substances.	
Substance	CAS# Finder
Methanol	67561

Operating Hours hr/yr	8,760.00				
Receptor Proximity and Proximity Factors	<b>Cancer Score</b>	<b>Chronic Score</b>	<b>Acute Score</b>	<b>Max Score</b>	
	0< R<100 1.000	4.22E+00	1.70E-01	2.70E-01	4.22E+00
	100≤R<250 0.250	1.05E+00	4.25E-02	6.74E-02	1.05E+00
	250≤R<500 0.040	1.69E-01	6.80E-03	1.08E-02	1.69E-01
	500≤R<1000 0.011	4.64E-02	1.87E-03	2.97E-03	4.64E-02
	1000≤R<1500 0.003	1.26E-02	5.10E-04	8.09E-04	1.26E-02
	1500≤R<2000 0.002	8.43E-03	3.40E-04	5.39E-04	8.43E-03
	2000<R 0.001	4.22E-03	1.70E-04	2.70E-04	4.22E-03

Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.

Enter the unit's CAS# of the substances emitted and their amounts. Prioritization score for each substance generated below. Totals on last row.

Substance <sup>1</sup>	CAS#	MW Correction	Annual Emissions (lbs/yr)	Maximum Hourly (lbs/hr)	Corrected Annual Emissions (lbs/yr)	Corrected Maximum Hourly (lbs/hr)	Average Hourly (lbs/hr)	Cancer	Chronic	Acute
Acetaldehyde	75070	1.0000	2.45E+00	2.80E-04	2.45E+00	2.80E-04	2.80E-04	5.09E-02	3.00E-04	8.93E-04
Acrolein	107028	1.0000	3.39E-01	3.87E-05	3.39E-01	3.87E-05	3.87E-05	0.00E+00	1.66E-02	2.32E-02
Benzene	71432	1.0000	1.68E+00	1.92E-04	1.68E+00	1.92E-04	1.92E-04	3.75E-01	9.58E-03	1.06E-02
1,3-Butadiene	106990	1.0000	1.13E-03	1.29E-07	1.13E-03	1.29E-07	1.29E-07	1.48E-03	9.68E-06	2.93E-07
Ethyl benzene	100414	1.0000	3.20E-01	3.66E-05	3.20E-01	3.66E-05	3.66E-05	6.17E-03	2.74E-06	0.00E+00
Formaldehyde	50000	1.0000	7.54E+01	8.61E-03	7.54E+01	8.61E-03	8.61E-03	3.48E+00	1.43E-01	2.35E-01
Hexane	110543	1.0000	4.71E+00	5.38E-04	4.71E+00	5.38E-04	5.38E-04	0.00E+00	1.15E-05	0.00E+00
Naphthalene	91203	1.0000	3.02E-02	3.44E-06	3.02E-02	3.44E-06	3.44E-06	7.90E-03	5.74E-05	0.00E+00
Toluene	108883	1.0000	1.30E+00	1.48E-04	1.30E+00	1.48E-04	1.48E-04	0.00E+00	5.30E-05	4.45E-05
PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]	1151	1.0000	3.44E-02	3.92E-06	3.44E-02	3.92E-06	3.92E-06	2.91E-01	0.00E+00	0.00E+00
		0.0000			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
		0.0000			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
		0.0000			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
<b>Totals</b>								<b>4.22E+00</b>	<b>1.70E-01</b>	<b>2.70E-01</b>

<sup>1</sup>Emissions based on Mainspring Energy source test data. PAHs emissions based on the SJVAPCD's AB2588 "Hot Sports" Air Toxics Profile natural gas internal combustion engines (ICE) 4-stroke lean burn (4SLB) engines with controls, profile #239, which lists the emission factor as 1.86E-03 lb/MMscf.