Lane Regional Air Protection Agency
Standard Air Contaminant Discharge Permit

Review Report

Metropolitan Wastewater Management Commission –
Eugene/Springfield Watter Pollution Control Facility
Permit No. 202537
410 River Avenue
Eugene, Oregon 97404

Source Information:

Primary SIC	4952
Secondary SIC	4922
Primary NAICS	221320
Secondary NAICS	486210

Source Categories: LRAPA Title 37 Table 1	Part B: 65. Part C: 3 Part C: 4
Public Notice Category	III

Compliance and Emissions Monitoring Requirements:

Unassigned emissions	Y	Source test [date(s)]	N
Emissions credits	N	COMS	N
Special Conditions	N	CEMS	N
Compliance schedule	N	Ambient monitoring	N

Reporting Requirements:

Annual report (due date)	March 15	Monthly report (due date)	N
Semi-Annual Report (due date)	N	Quarterly report (due dates)	N
SACC (due date)	N	Excess emissions report	Y
GHG Report (due date)	March 31	Other report	N

Air Programs:

NSPS (list subparts)	A, IIII	Title V	N
NESHAP (list subparts)	A, ZZZZ, CCCCCC	Major FHAP Source	N
40 CFR part 64 Compliance Assurance Monitoring (CAM)	N	Federal Major Source	N
Regional Haze (RH)	N		
TACT	Y	Type A State New Source Review	N
40 CFR part 68 Risk Management	N	Type B State New Source Review	N
Cleaner Air Oregon (CAO)	N	Prevention of Significant Deterioration (PSD)	N
Synthetic Minor (SM)	N	Nonattainment New Source Review (NNSR)	N
SM-80	N		

Permittee Identification

1. The Metropolitan Wastewater Management Commission – Eugene/Springfield Water Pollution Control Facility ("MWMC", "facility", or "source") operates a municipal wastewater treatment plant that serves the Eugene and Springfield municipal area.

2. The facility operates under the primary Standard Industrial Classification (SIC) code of 4952 – Sewerage Systems and the primary North American Industry Classification System (NAICS) code of 221320 – Sewage Treatment Facilities. The facility operates under the secondary SIC code of 4922 – Natural Gas Transmission and the secondary NAICS code of 486210 – Pipeline Transmission of Natural Gas.

General Background Information

3. The facility operates a municipal wastewater treatment plant. The boiler (EU-2) combusts natural gas or digester gas to provide heat to the digesters. The engine-generator set (EU-1) serves as a "backup" source of heat for the digesters when the boiler (EU-2) is down for maintenance, burning either natural gas or digester gas. Digester gas that is produced by the wastewater treatment process that is not combusted in EU-1 or EU-2 is routed to a Renewable Natural Gas (RNG) Facility (EU-5) for processing via Pressure Swing Absorption (PSA) and injection into the natural gas pipeline. Excess digester gas and off-spec renewable natural gas from the RNG facility is combusted in three (3) waste gas flares (EU-3) before release to the atmosphere. Tail gas from the PSA is combusted in a Regenerative Thermal Oxidizer (RTO) before release to the atmosphere. The facility maintains one stationary emergency generator to provide backup power to the facility during outage events.

Reason for Permit Action and Fee Basis

4. The permit action is a renewal for an existing Standard Air Contaminant Discharge Permit (Standard ACDP) which was issued on September 6, 2018 and expired on September 6, 2023. As the facility submitted a timely renewal application on February 27, 2023, the current permit will remain in effect until final action has been taken on the renewal application. The renewed Standard ACDP will be valid for up to five (5) years.

5. As part of the renewal, the permit has been modified to include an additional waste gas flare in EU-3 which will be the dedicated to combusting off-spec natural gas from the Digester Gas Upgrade System (EU-5). Construction of the third flare is expected to be completed in January 2026. Requirements for the facility's gasoline dispensing facility (GDF) have also been added as part of the permit renewal.

Attainment Status

6. The facility is located inside the Eugene-Springfield Air Quality Management Area. The facility is located in an area that has been designated attainment/unclassified for PM2.5, ozone (VOC), NO2, SO2, and Pb and a maintenance area for CO and PM10. The facility is located within 100 kilometers (km) of three (3) Class I air quality protection areas: Diamond Peak Wilderness, Mount Washington Wilderness, and Three Sisters Wilderness area.

Permitting History

7. LRAPA has reviewed and issued the following permitting actions to this facility:

Date Reviewed/ Approved	Permit Action Type	Description
12/17/1990	Permit Issuance	Regular ACDP
06/16/1994	Modification	Revised emission units
05/22/1995	Modification	Revised PSELs and emission units
11/19/1997	Modification	Corrected language, revised PSELs and emission units
11/30/2001	Renewal	Synthetic Minor ACDP
11/30/2005	Renewal	Synthetic Minor ACDP
05/12/2009	Modification	Change permit type and fee basis to Standard ACDP
08/15/2011	Renewal	Standard ACDP
04/03/2018	Modification	Addition of one (1) temporary natural gas-fired boiler, removal of one (1) existing natural gas/digester gas-fired boiler in EU-2
06/21/2018	Modification	Addition of two (2) biogas flares and removal of existing biogas flare in EU-3
09/06/2018	Renewal	Standard ACDP
08/26/2020	Modification	Correction to language for EU-1 Genset Requirements
06/29/2021	Modification	Addition of secondary SIC/NAICS for natural gas transmission, addition of EU-5 (digester gas upgrade system/renewable natural gas facility).
Upon issuance	Modification	Addition of a third flare to EU-3 to combust off-spec natural gas from EU-5. Addition of GDF requirements.
Upon issuance	Renewal	Standard ACDP

Emission Unit Descriptions

8. The emission units regulated by the permit are the following:

Emission Unit ID	Description	Pollution Control Device	Installed/Last Modified
EU-1	Engine Generator-Set: Jenbacher Genset, 1143 BHP, spark ignition, 4SLB, 7.3 MMBtu/hr	Miratech “L” CO catalytic converter	1997
EU-2	Boiler: Hurst, 200 HP, 8.2 MMBtu/hr, 4-pass scotch-marine fire tube	None	2018
EU-3	Waste Gas Flares: Three (3) Shand & Jurs 97300 waste gas flares. Pilot lights fueled with natural gas.	None	2018; 3rd flare to be installed 2026

Emission Unit ID	Description	Pollution Control Device	Installed/Last Modified
EU-4	Wastewater Treatment Operations	Biofiltration system and four (4) activated carbon filter odor/pollutant control vessels	NA
EU-5	Digester Gas Upgrade System: Renewable Natural Gas Facility (RNG)	Regenerative Thermal Oxidizer (RTO), Waste Gas Flare (EU-3)[1]	2021
AIA-1	Gasoline Dispensing Facility (GDF)	Work Practices, Submerged Fill	2017
CIA-1	Emergency Generator	None	2019

1. EU-3 includes a dedicated flare to combust off-spec natural gas from the Digester Gas Upgrade System (EU-5).

General Emission Limitations

9. The facility is subject to a limit of 20% opacity for each source emission point under LRAPA 32-010(3). The facility is subject to the grains per dry standard cubic foot limitations under LRAPA 32-015(2)(b)(B), 32-015(2)(c), and 32-030(2). Compliance is demonstrated by performing quarterly visual emission surveys of the stacks associated with EU-1 (Engine-Generator Set), EU-2 (Boiler), EU-3 (Waste Gas Flares), and EU-5 (Renewable Natural Gas Facility) using EPA Method 22.

Operation and Maintenance Requirements

10. The facility is required to prepare and follow an LRAPA-approved Operation and Maintenance (O&M) Plan which includes requirements for proper operation and maintenance of all pollution control devices at the facility. The facility's O&M plan was last reviewed by LRAPA in 2025.

Typically Achievable Control Technology (TACT)

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

    11.a. The following emission units are not subject to TACT because they do not have emissions equal to or greater than one (1) ton per year of any criteria pollutant: AIA-1, Gasoline Dispensing Facility (GDF) and CIA-1, Emergency Generator.

    11.b. EU-1, Engine-Generator Set is subject to TACT because it has emissions of VOC, NO_X, and CO each greater than one (1) ton per year. While LRAPA has not performed a formal TACT determination for VOC, NO_X and CO from this emission unit, LRAPA has

determined that proper operation and maintenance of the CO catalytic converter control device likely meets TACT for this emission unit.

11.c. EU-2, Boiler is subject to TACT because it has emissions of NO_X and CO each greater than one (1) ton per year. While LRAPA has not performed a formal TACT determination for NO_X and CO from this emission unit, LRAPA has determined that good combustion practices employed by this facility likely meet TACT for this emission unit.

11.d. EU-3, Waste Gas Flares is subject to TACT because it has emissions of VOC, NO_X, and CO each greater than one (1) ton per year. While LRAPA has not performed a formal TACT determination for NO_X and CO from this emission unit, LRAPA has determined that good combustion practices employed by this facility likely meet TACT for this emission unit.

11.e. EU-4, Wastewater Treatment Operations is subject to TACT because it has emissions of VOC greater than one (1) ton per year. While LRAPA has not performed a formal TACT determination for VOC from this emission unit, LRAPA has determined that the biofiltration system and four (4) activated carbon filer odor control vessels likely meet TACT for this emission unit.

11.f. EU-5, Digester Gas Upgrade System is considered a new unit because it was installed after January 1, 1994 and is subject to TACT because it has emission of NO_X and CO each greater than one (1) ton per year. While LRAPA has not performed a formal TACT determination for NO_X and CO from this emission unit, LRAPA has determined that proper operation and maintenance of the regenerative thermal oxidizer (RTO) control device likely meet TACT for this emission unit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

12. The engine-generator set in EU-1 is subject to 40 CFR part 63 subpart ZZZZ—*National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines* (RICE). The engine is considered an existing, non-emergency, non-black start stationary RICE which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis and is located at an area source of HAPs. The 40 CFR part 63 subpart ZZZZ requirements that are applicable to Jenbacher engine-generator set in EU-1 are identified in the following table:

40 CFR part 63, subpart ZZZZ Citation	Description	Applicable to Source (Y/N)	Comments	Permit Condition
63.6580	Purpose	Y	None	NA
63.6585	Applicability	Y	None	NA
63.6590	Applicability	Y	Existing stationary RICE	14
63.6595	Compliance Dates	Y	None	NA
63.6600	Emission limitations	N	None	NA
63.6601	Emission limitations	N	None	NA
63.6602	Emission limitations	N	None	NA
63.6603	Emission limitations	Y	Table 2d. 13 (a-c)	15
63.6604	Fuel requirements	N	None	NA
63.6605	General requirements	Y	None	16, 17

40 CFR part 63, subpart ZZZZ Citation	Description	Applicable to Source (Y/N)	Comments	Permit Condition
63.6610	Initial compliance	N	None	NA
63.6611	Initial performance test	N	None	NA
63.6612	Initial performance test	N	None	NA
63.6615	Subsequent performance tests	N	None	NA
63.6620	Performance test procedures	N	None	NA
63.6625	Monitoring and maintenance requirements	Y	None	18, 19, 20
63.6630	Initial compliance	N	None	NA
63.6635	Continuous compliance	N	None	NA
63.6640	Continuous compliance	Y	Work and management practices.	18
63.6645	Notifications	Y	None	NA
63.6650	Reports	N	None	NA
63.6655	Records	Y	Maintenance records	21
63.6660	Record retention	Y	5 years	22
63.6665	General provisions	Y	None	NA
63.6670	Implementation and enforcement	Y	None	NA
63.6675	Definitions	Y	None	NA

13. The Gasoline Dispensing Facility (GDF) in AIA-1 is subject to 40 CFR part 63 subpart CCCCCC – *National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities.* 40 CFR part 63 subpart CCCCCC has not been adopted by LRAPA. Under LRAPA 37-0066(3)(a), a Standard ACDP excludes federal requirements not adopted by the LRAPA Board of Directors. The 40 CFR part 63 subpart CCCCCC requirements that are applicable to the GDF in AIA-1 are identified in the following table:

40 CFR part 63 subpart CCCCCC Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition
63.11110	Purpose	Yes	None	--
63.11111	Applicability	Yes	The facility is a GDF and has a monthly throughput of less than 10,000 gallons/month	--
63.11112	Emission sources covered	Yes	Applies to the facility's gasoline storage tanks and associated equipment components	--
63.11113	Compliance dates	Yes	The compliance date for an existing source is not later than January 10, 2011	--
63.11115	General duties	Yes	None	--

40 CFR part 63 subpart CCCCCC Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition
63.11116	Requirements: <10,000 gallons per month	Yes	The facility must follow the requirements	--
63.11117	Requirements: ≥10,000 gallons per month	No	None	--
63.11118	Requirements: ≥100,000 gallons per month	No	None	--
63.11120	Testing and Monitoring Requirements	No	None	--
63.11124	Notifications	No	None	--
63.11125	Recordkeeping requirements	Yes	Record of equipment malfunction and corrective action	--
63.11126	Reporting requirements	No	Reporting not required for GDF with a monthly throughput of less than 10,000 gallons/month	--
63.11130	General provisions	Yes	None	--
63.11131	Implementation and enforcement	Yes	None	--
63.11132	Definitions	Yes	None	--

14. The facility is not subject to 40 CFR part 63 subpart VVV – *National Emissions Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works* (POTW) because the facility is considered a Group 2 POTW and is not a major source of HAP emissions.

15. The boiler in EU-2 is not subject to 40 CFR part 63 subpart JJJJJJ – *National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* because the boiler is a gas-fired boiler, as defined in 40 CFR 63.11237.

New Source Performance Standards (NSPS)

16. The emergency generator in CIA-1 is subject to 40 CFR part 60 subpart IIII – *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.* The generator was manufactured after 2007 and is considered an emergency stationary CI ICE with a displacement of less than 30 liters per cylinder. The 40 CFR part 60 subpart IIII requirements that are applicable to the emergency generator in CIA-1 are identified in the following table:

40 CFR part 60, subpart IIII Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition
60.4200	Applicability	Yes	Subject to (a)(2)(i)	44
60.4201	Emission standards	No	None	NA
60.4202	Emission standards	Yes	Subject to (a)(2). Manufacturer's emission certification was submitted with NC-202537-C18.	45.a
60.4203	Emission standards	No	None	NA
60.4204	Emission standards	No	None	NA
60.4205	Emission standards	Yes	Subject to (b)	45
60.4206	Emission standards	Yes	None	46
60.4207	Fuel requirements	Yes	None	47
60.4208	Other requirements	No	None	NA
60.4209	Monitoring requirements	No	None	NA
60.4210	Compliance requirements	No	None	NA
60.4211	Compliance requirements	Yes	Subject to (a), (c), (f), (g)	48 - 51
60.4212	Testing requirements	No	None	NA
60.4213	Test methods	No	None	NA
60.4214	Notification, reporting, and recordkeeping	Yes	Subject to (b)	52
60.4215	Special requirements	No	None	NA
60.4216	Special requirements	No	None	NA
60.4217	Special requirements	No	None	NA
60.4218	General provisions	No	None	NA
60.4219	Definitions	Yes	None	NA

17. The facility is not subject to 40 CFR part 60 subpart O – *Standards of Performance for Sewage Treatment Plants* because the facility does not combust sewage sludge in incinerators.

18. The engine-generator set in EU-1 is not subject to 40 CFR part 60 subpart JJJJ – *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines* because the engine was constructed/ last modified prior to the applicability date of 06/12/2006.

19. The boiler in EU-2 is not subject to 40 CFR part 60 subpart Dc – *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* because the boiler's maximum design heat input is less than 10 MMBtu/hr.

Plant Site Emission Limits (PSELs)

20. Provided below is a summary of the baseline emission rate, netting basis, plant site emission limit, and potential-to-emit:

Pollutant	Baseline Emission Rate (TPY)	Netting Basis		Plant Site Emission Limit (PSEL)		PTE (TPY)
		Previous (TPY)	Proposed (TPY)	Previous PSEL (TPY)	Proposed PSEL (TPY)	
PM	0	0	0	NA	NA	0.61
PM_{10}	0	0	0	NA	NA	0.29
$PM_{2.5}$	NA	0	0	NA	NA	0.29
CO	79	79	79	99	90	90
NO_x	59	59	59	98	47	47
SO_2	0	0	0	NA	NA	0.22
VOC	7.2	7.2	7.2	46	36	36.4
GHG	2,890	2,890	2,890	74,000	34,492	34,492

21. The baseline emission rates were established based upon the following:
    21.a. Except for $PM_{2.5}$ and GHG, the baseline emission rates for all regulated pollutants are from the 1978 baseline period as determined in previous permitting actions. There are no changes to these emission rates as part of this permitting action.
    21.b. A baseline emission rate is not required for $PM_{2.5}$ in accordance with LRAPA 42-0048(3).
    21.c. The baseline emission rate for greenhouse gases (GHG) is based on the consecutive 12-month period of January 2008 through December 2008.

22. The netting basis for all regulated pollutants was established in previous permitting actions. There are no changes to the netting basis as part of this permitting action.

23. The PSELs were established based upon the following:

    23.a. The PSELs for CO, NO_x, VOC, and GHGs were reset to the potential emission rate from the significant emission units as required by LRAPA 42-0041(3). The previous PSELs for these pollutants were based on generic PSELs that are no longer allowed by rule.

    23.b. In accordance with LRAPA 42-0020(3)(a), no PSELs were established for PM, PM_{10}, $PM_{2.5}$, or SO_2 because the facility's PTE for these pollutants is below the de minimis emission level listed in LRAPA title 12.

23.c. In accordance with LRAPA 42-0020(1) and 42-0060, no PSEL was established for single or total HAPs. Prior to this permitting action the facility had HAP PSELs of 9 tpy for individual HAPs and 24 tpy for total HAPs. These previous PSELs were based on generic limits that are no longer allowed by rule. The facility has not requested that LRAPA create an enforceable PTE limit for HAPs as part of this permitting action. The facility's HAP PTE remains below major source thresholds, as detailed in Items 27 – 29.

Unassigned Emissions and Emission Reduction Credits

24. The facility has unassigned emissions as shown in the table below. Unassigned emissions are equal to the netting basis minus the source's current PTE, minus any banked emission reduction credits. In accordance with LRAPA 42-0055, unassigned emissions greater than the SER will be reduced to less than the applicable SER at the next permit renewal if the unassigned emissions are not used for internal netting prior to that date.

Pollutant	Proposed Netting Basis (TPY)	PTE (TPY)	Unassigned Emissions (TPY)	Emission Reduction Credits (TPY)	SER (TPY)
PM	0	0.61	0	0	25
PM_{10}	0	0.29	0	0	15
$PM_{2.5}$	0	0.29	0	0	10
CO	79	90	0	0	100
NO_x	59	47	12.1	0	40
SO_2	0	0.22	0	0	40
VOC	7.2	36	0	0	40
GHGs	2,890	34,492	0	0	75,000

Significant Emission Rate Analysis

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

Pollutant	Proposed PSEL (TPY)	PSEL Increase Over Netting Basis (TPY)	PSEL Increase Due to Utilizing Existing Baseline Period Capacity (TPY)	PSEL Increase Due to Modification (TPY)	SER (TPY)
PM	NA	NA	0	0	25
PM_{10}	NA	NA	0	0	15
$PM_{2.5}$	NA	NA	0	0	10
CO	90	11	0	0	100
NO_x	47	0	0	0	40
SO_2	NA	NA	0	0	40
VOC	36	28.8	0	0	40
GHGs	34,492	31,602	0	0	75,000

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

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

Federal Hazardous Air Pollutants/Toxic Air Contaminants

27. Potential annual federal hazardous air pollutant (FHAP) emissions are based on the potential to emit of the facility operating under permit limitations The highest single FHAP emitted by the facility is phenol at approximately 3.44 tons per year. The potential total FHAP emissions are 10.28 tons per year. A major source of FHAPs is defined as having potential FHAP emissions of at least 10 tons per year of any single HAP and 25 tons per year of the aggregate of all FHAPs. This facility does not have potential FHAP emissions exceeding these thresholds and is considered an area source of FHAPs.

28. Under Cleaner Air Oregon (CAO) program, only existing sources that have been notified by LRAPA and new sources are required to perform risk assessments. Eugene/Springfield Water Pollution Control Facility has not been notified by LRAPA and is therefore not yet required to perform a risk assessment or report annual emissions of toxic air contaminants. LRAPA required reporting of approximately 600 toxic air contaminants in 2023 and regulates approximately 260 toxic air contaminants (TAC) that have Risk Based Concentrations established in rule. All FHAPs are on the list of approximately 600 TACs. The FHAPs and TACs listed below are based upon safety data sheets and standard emission factors for the types of emission units at this facility. After the source is notified by LRAPA, they must update their inventory and perform a risk

assessment to see if they must reduce risk from their TACs. Until then, this source will be required to report TAC emissions triennially.

29. The table below represents the potential emissions of FHAP from the facility, excluding potential emissions from categorically insignificant Activities. The highest single FHAP emitted by the facility is phenol.

CAS Number	Pollutant	PTE (tpy)	FHAP	CAO TAC
79-34-5	1,1,2,2-Tetrachloroethane	1.28E-03	Y	Y
79-00-5	1,1,2-Trichloroethane	1.02E-03	Y	Y
78-87-5	1,2-Dichloropropane	8.59E-04	Y	Y
106-99-0	1,3 Butadiene	8.84E-03	Y	Y
542-75-6	1,3-Dichloropropene	8.44E-04	Y	Y
106-46-7	1,4 Dichlorobenzene	0.017	Y	Y
540-84-1	2,2,4-Trimethylpentane	6.06E-07	Y	Y
78-93-3	2-Butanone	0.532	N	Y
91-57-6	2-Methyl naphthalene	1.06E-03	Y	Y
83-32-9	Acenaphthene	4.01E-05	Y	Y
208-96-8	Acenaphthylene	1.77E-04	Y	Y
75-07-0	Acetaldehyde	0.281	Y	Y
107-02-8	Acrolein	0.167	Y	Y
7440-36-0	Antimony	0.040	Y	Y
7440-38-2	Arsenic and compounds	0.119	Y	Y
71-43-2	Benzene	0.060	Y	Y
205-99-2	Benzo[b]fluoranthene	5.30E-06	Y	Y
192-97-2	Benzo[e]pyrene	1.33E-05	Y	Y
191-24-2	Benzo[g,h,i]perylene	1.32E-05	Y	Y
7440-41-7	Beryllium and compounds	1.24E-03	Y	Y
111-44-4	bis(2-Chloroethyl)ether	0.052	Y	Y
117-81-7	Bis(2-ethylhexyl) phthalate	0.387	Y	Y
75-27-4	Bromodichloromethane	2.48E-03	N	Y
7440-43-9	Cadmium	0.015	Y	Y
56-23-5	Carbon tetrachloride	1.81E-03	Y	Y
108-90-7	Chlorobenzene	2.48E-03	Y	Y
67-66-3	Chloroform	0.220	Y	Y
74-87-3	Chloromethane	7.45E-03	Y	Y
18540-29-9	Chromium	0.222	Y	Y
218-01-9	Chrysene	2.22E-05	Y	Y
7440-48-4	Cobalt and compounds	5.53E-06	Y	Y
74-90-8	Cyanide	0.012	Y	Y
84-66-2	Diethyl phthalate	0.139	N	Y

CAS Number	Pollutant	PTE (tpy)	FHAP	CAO TAC
84-74-2	Di-n-butyl phthalate	0.334	Y	Y
100-41-4	Ethyl benzene	0.517	Y	Y
106-93-4	Ethylene dibromide	1.42E-03	Y	Y
107-06-2	Ethylene dichloride	1.24E-03	Y	Y
206-44-0	Fluoranthene	3.54E-05	Y	Y
86-73-7	Fluorene	1.81E-04	Y	Y
50-00-0	Formaldehyde	2.01	Y	Y
76-44-8	Heptachlor	2.48E-03	Y	Y
110-54-3	Hexane	0.044	Y	Y
7439-92-1	Lead and compounds	0.200	Y	Y
7439-96-5	Manganese and compounds	2.50E-05	Y	Y
7439-97-6	Mercury and compounds	4.98E-03	Y	Y
67-56-1	Methanol	0.080	Y	Y
75-09-2	Methylene chloride	0.090	Y	Y
91-20-3	Naphthalene	5.33E-03	Y	Y
7440-02-0	Nickel	0.302	Y	Y
365	Nickel compounds, insoluble	1.38E-04	Y	Y
127-18-4	Perchloroethylene	0.013	Y	Y
85-01-8	Phenanthrene	3.32E-04	Y	Y
108-95-2	Phenol	3.44	Y	Y
401	Polycyclic aromatic hydrocarbons (PAHs)	8.00E-04	Y	Y
129-00-0	Pyrene	4.36E-05	Y	Y
7782-49-2	Selenium and compounds	0.059	Y	Y
100-42-5	Styrene	7.56E-04	Y	Y
108-88-3	Toluene	1.01	Y	Y
79-01-6	Trichloroethylene	5.76E-04	Y	Y
75-01-4	Vinyl chloride	1.63E-03	Y	Y
1330-20-7	Xylene (mixture)	0.545	Y	Y
Total (tpy):			**10.28**	**10.95**

Toxic Release Inventory

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

- Cancer or other chronic human health effects;

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

There are currently over 650 chemicals covered by the TRI Program. Facilities that manufacture, process or otherwise use these chemicals in amounts above established levels must submit annual TRI reports on each chemical. NOTE: The TRI Program is a federal program over which LRAPA has no regulatory authority. LRAPA does not guarantee the accuracy of any information copied from EPA's TRI website.

In order to report emissions to the TRI program, a facility must operate under a reportable NAICS code, meet a minimum employee threshold, and manufacture, process, or otherwise use chemicals in excess of the applicable reporting threshold for the chemical.

Eugene/Springfield Water pollution Control Facility's NAICS code does not fall under a reportable NAICS code and thus the facility has not reported any emissions to the TRI program.

Compliance History

31. The following table indicates the compliance history of this facility since the issuance of the last ACDP renewal in 2018.

Type of Inspection	Date	Results
LRAPA – Maintenance of Compliance	5/3/2019	In compliance: monitoring and reporting
LRAPA - Full Compliance Evaluation	6/10/2021	No evidence of non-compliance

32. There have been no enforcement actions against the facility.

33. LRAPA received one (1) complaint regarding odor from the facility since the issuance of the last ACDP renewal in 2018.

Source Testing

34. The facility is not required to conduct source testing.

Recordkeeping Requirements

35. The facility is required to keep and maintain all records of the following information for a period of at least five (5) years and have available within 24 hours of a request from LRAPA:

Activity	Units	Minimum Recording Frequency
PSEL Recordkeeping		
PSEL emission calculations according to Condition 5	Tons	Monthly
Natural gas combusted in EU-1	Scf	Monthly
Digester gas combusted in EU-1	Scf	Monthly
Hours of operation of EU-1	Hours	Monthly
Natural gas combusted in EU-2	Scf	Monthly
Digester gas combusted in EU-2	Scf	Monthly

Activity	Units	Minimum Recording Frequency
Natural gas combusted in EU-3	Scf	Monthly
Digester gas combusted in EU-3	Scf	Monthly
Off-spec gas combusted in EU-3	Scf	Monthly
Wastewater influent volume	10^6 gallons	Monthly
Natural gas combusted in the RTO	Scf	Monthly
PSA tail gas combusted in the RTO	Scf	Monthly
Periods of PSA tail gas venting	Hours	Monthly
Renewable natural gas injected into natural gas pipeline	Scf	Monthly
40 CFR part 63 subpart ZZZZ Recordkeeping for EU-1		
Records of the parameters that are analyzed as part of the oil analysis program, the results of the analysis, and the oil and filter changes for the engine, as applicable, according to Condition 20.e	NA	Upon Occurrence
Records of the maintenance conducted on the stationary RICE, according to Condition 21	NA	Upon Occurrence
Gasoline Dispensing Facility Recordkeeping		
Operation and maintenance records of GDF equipment according to Condition 42.a	NA	Upon occurrence
Total throughput of gasoline according to Condition 42.b	Gallons	Monthly
Permanent changes made at the GDF according to Condition 42.c	NA	Upon occurrence
Occurrence and duration of each equipment malfunction according to Condition 42.d	NA	Upon occurrence
Actions taken during periods of equipment malfunction according to Condition 42.e	NA	Upon occurrence
Manufacturer documentation demonstrating submerged fill tube compliance according to Condition 42.f	NA	Documentation
Written spill clean up plan according to Condition 42.g	NA	Documentation
40 CFR part 60 subpart IIII Recordkeeping for CIA-1		
Manufacturer certification, according to Condition 45.a	NA	Documentation
Maintenance plan and records of conducted maintenance according to Condition 50.a, as applicable.	NA	Documentation
Hours of operation and reason for operation, according to Condition 52	Hours	Monthly
General Recordkeeping		
Documentation of all visible emission surveys and corrective actions, as applicable, according to Condition 12	NA	Upon occurrence
Operation and Maintenance Plan, as required by Condition 13	NA	Maintain current version on-site
Log of each nuisance complaint and the resolution according to Condition G11	NA	Upon receipt of complaint
Excess emissions log of all unplanned excess emissions according to Condition G16	NA	Per occurrence

Reporting Requirements

36. The facility is required to submit to LRAPA the following information by no later than the dates indicated in the table below:

Report	Reporting Period	Due Date
PSEL emission calculations according to Condition 5	Annual	March 15
Natural gas combusted in EU-1 (scf)	Annual	March 15
Digester gas combusted in EU-1 (scf)	Annual	March 15
Hours of Operation of EU-1	Annual	March 15
Natural gas combusted in EU-2 (scf)	Annual	March 15
Digester gas combusted in EU-2 (scf)	Annual	March 15
Natural gas combusted in EU-3 (scf)	Annual	March 15
Digester gas combusted in EU-3 (scf)	Annual	March 15
Off-spec gas combusted in EU-3 (scf)	Annual	March 15
Wastewater influent volume (million gallons)	Annual	March 15
Natural gas combusted in the RTO (scf)	Annual	March 15
PSA tail gas combusted in the RTO (scf)	Annual	March 15
Periods of tail gas venting (hours)	Annual	March 15
Renewable natural gas injected into natural gas pipeline (scf)	Annual	March 15
Total throughput of gasoline for the GDF (gallons)	Annual	March 15
Log of nuisance complaints received during the reporting period and the resolution according to Condition G11	Annual	March 15
Log of all excess emissions which occurred during the reporting period, according to Condition G14	Annual	March 15
Greenhouse Gas Report, according to Condition 6	Annual	March 31

Public Notice

37. The proposed permit was on public notice from August 18, 2025 to September 22, 2025. One written comment was submitted during the public comment period. After the public comment period ended, LRAPA responded to the comment received and has taken action to issue the permit with minor changes to the review report.

Public Comments Summary and LRAPA Responses
LRAPA received and responded to the following comments at the close of the public comment period:

[All public comments that were received for this project are a public record and are retained with the public permit review files. For purposes of this summary document, the public comments may have been edited to reduce length or consolidated with similar comments. Public comments that are not related to the review report or draft permit, such as those comments that are statements of fact or express an opinion, are not presented in this document, and do not require a response from LRAPA.]

Comment 1: One commenter suggested revising the footnotes of the 'RTO Venting Emissions' table contained in the 'Emission Detail Sheets' section of the review report for additional clarity. The commenter also noted that the average emission rates displayed in the table appear incorrect based on the data shown in the table.

Response 1: The 'RTO Venting Emissions' table shows the average methane (CH_4), hydrogen sulfide (H_2S), carbon dioxide (CO_2), and carbon dioxide equivalent (CO_2e) emission rates produced under RTO venting conditions. Average emission rates are displayed for years 2022, 2023, 2024, 2025, as well as a total average for 2022 – 2025. These averages are based on a larger data set consisting of 422 data points which, for the sake of being concise, is not included in the review report. Averaging the already-averaged emission rates for each year produces a different (and mathematically inaccurate) result than averaging the total data set. The 'RTO Venting Emissions' table has been revised to include additional footnotes and subscripts which indicate the number of underlying data points used to calculate each average emission rate.

Public Comment Receipt Log

Written comments were received from:

Sharon Olson solson@eugene-or.gov

Emission Detail Sheets

PSEL and PTE:

PLANT SITE EMISSION LIMITS										
Emission Units	PM	PM_{10}	$PM_{2.5}$	CO	NO_X	SO_2	VOC	Single HAP[1]	Aggregate HAP	GHG (CO_2e)
	tpy	tpy	tpy	tpy	tpy	tpy	tpy	tpy	tpy	tpy
Genset (EU-1)	0.32	2.47E-03	2.47E-03	30.90	27.10	0.02	6.62	-	2.31	3880
Boiler (EU-2)	0.16	0.16	0.16	5.52	6.57	0.11	0.36	-	0.02	8009
Waste Gas Flares (EU-3)	0.00	0.00	0.00	48.88	10.72	0.00	22.08	-	0.78	18781
Wastewater Treatment Operations (EU-4)	-	-	-	-	-	-	6.04	3.44	7.17	-
Digester Gas Upgrade System, Regenerative Thermal Oxidizer (EU-5)	0.13	0.13	0.13	4.28	2.55	0.09	0.28	-	0.03	3821
Gasoline Dispensing Facility (AIA-1)	-	-	-	-	-	-	1.00	-	7.66E-06	-
Potential to Emit (PTE)	0.61	0.29	0.29	89.59	46.94	0.22	36.4	3.44	10.30	34492
PSELs	NA	NA	NA	90	47	NA	36	NA	NA	34492
1. Highest single HAP for facility is Phenol.										

Facility-Wide HAP/TAC Summary:

HAP Summary										
Cas	Compound	HAP	TAC	Annual Emissions (tpy)						Total Annual Emissions (tpy)
				EU-1 Genset	EU-2 Boiler	EU-3 Waste Gas Flares	EU-4 Wastewater Influent	EU-5 RNG	AIA-1 GDF	
79-34-5	1,1,2,2-Tetrachloroethane	Y	Y	1.28E-03	-	-	-	-	-	1.28E-03
79-00-5	1,1,2-Trichloroethane	Y	Y	1.02E-03	-	-	-	-	-	1.02E-03
78-87-5	1,2-Dichloropropane	Y	Y	8.59E-04	-	-	-	-	-	8.59E-04
106-99-0	1,3 Butadiene	Y	Y	8.84E-03	-	-	-	-	-	8.84E-03
542-75-6	1,3-Dichloropropene	Y	Y	8.44E-04	-	-	-	-	-	8.44E-04
106-46-7	1,4 Dichlorobenzene	Y	Y	6.40E-04	-	-	1.61E-02	-	-	1.68E-02
540-84-1	2,2,4-Trimethylpentane	Y	Y	-	-	-	-	-	6.06E-07	6.06E-07
78-93-3	2-Butanone	Delisted	Y	-	-	-	5.32E-01	-	-	5.32E-01
91-57-6	2-Methyl naphthalene	Y	Y	1.06E-03	-	-	-	-	-	1.06E-03
83-32-9	Acenaphthene	Y	Y	4.01E-05	-	-	-	-	-	4.01E-05
208-96-8	Acenaphthylene	Y	Y	1.77E-04	-	-	-	-	-	1.77E-04
75-07-0	Acetaldehyde	Y	Y	2.69E-01	5.65E-04	1.13E-02	-	2.19E-04	-	2.81E-01
107-02-8	Acrolein	Y	Y	1.64E-01	3.55E-04	2.63E-03	-	1.38E-04	-	1.67E-01
7440-36-0	Antimony	Y	Y	-	-	-	3.97E-02	-	-	3.97E-02
7440-38-2	Arsenic and compounds	Y	Y	7.36E-05	1.31E-05	-	1.19E-01	3.00E-08	-	1.19E-01
71-43-2	Benzene	Y	Y	1.41E-02	1.05E-03	4.18E-02	2.48E-03	4.08E-04	5.58E-07	5.98E-02
205-99-2	Benzo[b]fluoranthene	Y	Y	5.30E-06	-	-	-	-	-	5.30E-06
192-97-2	Benzo[e]pyrene	Y	Y	1.33E-05	-	-	-	-	-	1.33E-05
191-24-2	Benzo[g,h,i]perylene	Y	Y	1.32E-05	-	-	-	-	-	1.32E-05
7440-41-7	Beryllium and compounds	Y	Y	-	7.88E-07	-	1.24E-03	1.80E-09	-	1.24E-03
111-44-4	bis(2-Chloroethyl)ether	Y	Y	-	-	-	5.21E-02	-	-	5.21E-02
117-81-7	Bis(2-ethylhexyl) phthalate	Y	Y	-	-	-	3.87E-01	-	-	3.87E-01
75-27-4	Bromodichloromethane	N	Y	-	-	-	2.48E-03	-	-	2.48E-03
7440-43-9	Cadmium	Y	Y	1.86E-05	7.23E-05	-	1.49E-02	1.65E-07	-	1.50E-02
56-23-5	Carbon tetrachloride	Y	Y	1.81E-03	-	-	-	-	-	1.81E-03
108-90-7	Chlorobenzene	Y	Y	-	-	-	2.48E-03	-	-	2.48E-03
67-66-3	Chloroform	Y	Y	1.46E-03	-	-	2.18E-01	-	-	2.20E-01
74-87-3	Chloromethane	Y	Y	-	-	-	7.45E-03	-	-	7.45E-03
18540-29-9	Chromium VI, chromate	Y	Y	-	9.20E-05	-	2.22E-01	2.10E-07	-	2.22E-01
218-01-9	Chrysene	Y	Y	2.22E-05	-	-	-	-	-	2.22E-05

HAP Summary

Cas	Compound	HAP	TAC	Annual Emissions (tpy)						Total Annual Emissions (tpy)
				EU-1 Genset	EU-2 Boiler	EU-3 Waste Gas Flares	EU-4 Wastewater Influent	EU-5 RNG	AIA-1 GDF	
7440-48-4	Cobalt and compounds	Y	Y	-	5.52E-06	-	-	1.26E-08	-	5.53E-06
74-90-8	Cyanide	Y	Y	-	-	-	1.24E-02	-	-	1.24E-02
84-66-2	Diethyl phthalate	N	Y	-	-	-	1.39E-01	-	-	1.39E-01
84-74-2	Di-n-butyl phthalate	Y	Y	-	-	-	3.34E-01	-	-	3.34E-01
100-41-4	Ethyl benzene	Y	Y	1.27E-03	1.25E-03	3.79E-01	1.34E-01	4.85E-04	4.49E-07	5.17E-01
106-93-4	Ethylene dibromide	Y	Y	1.42E-03	-	-	-	-	-	1.42E-03
107-06-2	Ethylene dichloride	Y	Y	1.24E-03	-	-	-	-	-	1.24E-03
206-44-0	Fluoranthene	Y	Y	3.54E-05	-	-	-	-	-	3.54E-05
86-73-7	Fluorene	Y	Y	1.81E-04	-	-	-	-	-	1.81E-04
50-00-0	Formaldehyde	Y	Y	1.70E+00	2.23E-03	3.07E-01	-	8.67E-04	-	2.01E+00
76-44-8	Heptachlor	Y	Y	-	-	-	2.48E-03	-	-	2.48E-03
110-54-3	Hexane	Y	Y	3.54E-02	8.28E-04	7.62E-03	-	3.21E-04	1.46E-06	4.42E-02
6/4/7783	Hydrogen Sulfide	N	Y	-	-	-	-	2.08E-02	-	2.08E-02
7439-92-1	Lead and compounds	Y	Y	1.09E-04	3.29E-05	-	2.00E-01	7.50E-08	-	2.00E-01
7439-96-5	Manganese and	Y	Y	-	2.50E-05	-	-	5.70E-08	-	2.50E-05
7439-97-6	Mercury and compounds	Y	Y	-	1.71E-05	-	4.96E-03	3.90E-08	-	4.98E-03
67-56-1	Methanol	Y	Y	8.00E-02	-	-	-	-	-	8.00E-02
75-09-2	Methylene chloride	Y	Y	1.06E-03	-	-	8.94E-02	-	-	9.04E-02
91-20-3	Naphthalene	Y	Y	2.38E-03	3.94E-05	2.89E-03	-	1.53E-05	-	5.33E-03
7440-02-0	Nickel	Y	Y	6.40E-05	-	-	3.02E-01	-	-	3.02E-01
365	Nickel compounds,	Y	Y	-	1.38E-04	-	-	3.15E-07	-	1.38E-04
127-18-4	Perchloroethylene	Y	Y	6.72E-04	-	-	1.24E-02	-	-	1.31E-02
85-01-8	Phenanthrene	Y	Y	3.32E-04	-	-	-	-	-	3.32E-04
108-95-2	Phenol	Y	Y	-	-	-	3.44E+00	-	-	3.44E+00
401	Polycyclic aromatic	Y	Y	-	6.57E-06	7.88E-04	-	5.10E-06	-	8.00E-04
129-00-0	Pyrene	Y	Y	4.36E-05	-	-	-	-	-	4.36E-05
7782-49-2	Selenium and compounds	Y	Y	3.52E-04	1.58E-06	-	5.83E-02	3.60E-09	-	5.87E-02
100-42-5	Styrene	Y	Y	7.56E-04	-	-	-	-	-	7.56E-04
108-88-3	Toluene	Y	Y	1.30E-02	4.81E-03	1.52E-02	9.74E-01	1.87E-03	2.97E-06	1.01E+00
79-01-6	Trichloroethylene	Y	Y	5.76E-04	-	-	-	-	-	5.76E-04
75-01-4	Vinyl chloride	Y	Y	1.63E-03	-	-	-	-	-	1.63E-03
1330-20-7	Xylene (mixture)	Y	Y	5.90E-03	3.57E-03	7.62E-03	5.26E-01	1.39E-03	1.63E-06	5.45E-01
Total HAPS (tpy):				**2.31**	**0.02**	**0.78**	**7.17**	**0.01**	**0.00**	**10.28**
Total TACS (tpy)				**2.31**	**0.02**	**0.78**	**7.84**	**0.03**	**0.00**	**10.95**

EU-1 Genset:

EU-1 Genset Emissions

Max Heat Input (MMBtu/hr)	Fuel	HHV (Btu/scf gas)	Max Fuel Throughput (MMscf gas/yr)	Pollutant	EF (lb/MMBtu)	EF (lb/MMscf)	EF Reference	Annual Emission (lb/yr)	Annual Emissions (tpy)
7.304	Digester gas	600	106.6	PM	0.012	7.2	Jencacher - March 28, 2000	767.8	0.38
				PM10	0.012	7.2	Jencacher - March 28, 2000	767.8	0.38
				PM2.5	0.012	7.2	Jencacher - March 28, 2000	767.8	0.38
				SO2	0.0065	3.9	Jencacher - March 28, 2000	415.9	0.21
				VOC	0.207	124.2	Jencacher - March 28, 2000	13244	6.6
				NOx	0.517	310.2	Jencacher - March 28, 2000	33079	16.5
				CO	0.966	579.6	Jencacher - March 28, 2000	61808	30.9
	Natural Gas	1020	62.7	PM	9.91E-03	10.11	AP-42 Table 3.2-2	634	0.317
				PM10	7.71E-05	0.08	AP-42 Table 3.2-2	5	0.002
				PM2.5	7.71E-05	0.08	AP-42 Table 3.2-2	5	0.002
				SO2	5.88E-04	0.60	AP-42 Table 3.2-2	38	0.0
				VOC	1.18E-01	120.40	AP-42 Table 3.2-2	7553	3.8
				NOx	8.47E-01	863.90	AP-42 Table 3.2-2	54191	27.1
				CO	5.57E-01	568.10	AP-42 Table 3.2-2	35636	17.8

Digester gas EFs are from a March 28, 2000, gas analysis taken by Jenbacher Energy Systems Ltd.

EU-2 Boiler:

EU-2 Boiler Emissions					
Maximum Capacity:	131.4	MMscf gas/yr			
	15000	scf/hr			
Pollutant	**EF**	**EF Unit**	**EF Reference**	**Annual Emission (lb/yr)**	**Annual Emissions (tpy)**
PM	2.50	lb/MMscf digester or natural gas	DEQ AQ-EF05	329	0.16
PM10	2.50	lb/MMscf digester or natural gas	DEQ AQ-EF05	329	0.16
PM2.5	2.50	lb/MMscf digester or natural gas	DEQ AQ-EF05	329	0.16
CO	84.00	lb/MMscf digester or natural gas	DEQ AQ-EF05	11038	5.52
NOx	100.00	lb/MMscf digester or natural gas	DEQ AQ-EF05	13140	6.57
SO2	1.70	lb/MMscf digester or natural gas	DEQ AQ-EF05	223	0.11
VOC	5.50	lb/MMscf digester or natural gas	DEQ AQ-EF05	723	0.36

EU-3 Waste Gas Flares

EU-3 Waste Gas Flares Emissions					
Maximum Capacity:	525.6	MMscf digester/off-spec gas/yr	HHV:	600	Btu/scf digester gas or off-spec gas
Pollutant	**EF (lb/MMBtu)**	**EF (lb/MMscf waste gas)**	**EF Reference**	**Annual Emission (lb/yr)**	**Annual Emissions (tpy)**
VOC	0.14	84.00	AP-42 13.5-1	44150	22.1
NOx	0.068	40.80	AP-42 13.5-1	21444	10.7
CO	0.31	186.00	AP-42 13.5-2	97762	48.9
PM^1	-	-	-	-	0
PM_{10}^1	-	-	-	-	0
$PM_{2.5}^1$	-	-	-	-	0
SO_2	-	-	-	-	0
1. Nonsmoking combustion. Soot concnetrations for non-smoking flares: 0 ug/L - AP-42 Table 13.5-1					

EU-4 Wastewater Treatment Operations:

EU-4 Water Treatment Operations Emissions					
Maximum Capacity:	24820	(Mgal/yr)			
Pollutant	**EF**	**EF Unit**	**EF Reference**	**Annual Emissions (lb/yr)**	**Annual Emissions (tpy)**
VOC	0.487	($lb/10^6$ gal)	Facility grab sample (2018-2022)	12087	6.0
Note: EU-4 does not emit PM, PM10, PM2.5, NOx, CO, or SO2					

EU-5 Digester Gas Upgrade System:

EU-5 RNG RTO Emissions					
Maximum Capacity:	101.7	MMscf tail gas/yr			
	0.3	MMscf natural gas/yr			
Pollutant	**EF**	**EF Unit**	**EF Reference**	**Annual Emission (lb/yr)**	**Annual Emissions (tpy)**
PM	2.50	lb/MMscf natural / tail gas	DEQ AQ-EF05	255	0.128
PM10	2.50	lb/MMscf natural / tail gas	DEQ AQ-EF05	255	0.128
PM2.5	2.50	lb/MMscf natural / tail gas	DEQ AQ-EF05	255	0.128
CO	84.00	lb/MMscf natural / tail gas	DEQ AQ-EF05	8568	4.28
NOx	50.00	lb/MMscf natural / tail gas	DEQ AQ-EF05	5100	2.55
SO2	1.70	lb/MMscf natural / tail gas	DEQ AQ-EF05	173	0.09
VOC	5.50	lb/MMscf natural / tail gas	DEQ AQ-EF05	561	0.28

AIA-1 Gasoline Dispensing Facility:

AIA-1 GDF Emissions		
Storage Tank Size:	2,000	gal
Maximum Annual GDF Throughput:	9,066	gal/yr
Vehicles w/ ORVR[1] in Lane Co.	65	percent
Refueling - No ORVR[2]:	10.36	lbs/Mgals
Refueling - ORVR[3]:	0.21	lbs/Mgals
Source	EF (lb/Mgal)	
Tank Filling[4]	7.70	
Breathing[5]	1.00	
Adjusted Refueling	3.76	
Spillage[6]	0.61	
Hose Permeation	0.062	
Total VOC EF:	13.13	
VOC Actual PTE (tpy)	**0.06**	
VOC PSEL PTE (tpy)	**1.00**	

1. ORVR = Onboard Refueling Vapor Recovery
2.Refueling emission factor with no ORVR based on DEQ 2018 GDF VOC Estimates.
3. Refueling emission factor with no ORVR based on DEQ 2018 GDF VOC Estimates.
4. Tank filling emission factor from CARB "Revised Emission Factors for Gasoline
5. Breathing emission factor from US EPA AP-42, Table 5.2-7.
6. Spillage emission factor from CARB "Revised Emission Factors for Gasoline
7.Hose permeation emission factor from CARB "Revised Emission Factors for

GHGs:

GHG Summary				
Emission Units	**Potential Emissions (tpy)**			
ID & Description	**CO_2**	**CH_4**	**N_2O**	**CO_2e**
Genset (EU-1)	3,742.3	0.2	0.44	3,880.3
Boiler (EU-2)	7,839.1	0.3	0.55	8,009.2
Waste Gas Flares (EU-3)	18,100.8	1.11	2.190	18,781.3
Regenerative Thermal Oxidizer (EU-5)	3,505.0	0.22	0.423	3,820.9
Total Potential CO_2e Emissions for All Emission Units	33,187.2	1.8	3.61	34,492

RTO Venting[1] Emissions				
Average Emission Rates by Year	CH_4[2] lb/hr	H_2S lb/hr	CO_2 lb/hr	CO_2e[3] lb/hr
2022 (n=119)	29.3	0.07	965.0	733.6
2023 (n=43)	11.0	0.07	947.3	276.2
2024 (n=177)	25.3	0.07	1006.3	633.2
2025 (n=83)	28.4	0.07	956.8	709.6
Total Average[4]	**25.6**	**0.07**	**978.9**	**640.2**
Maximum venting hours:	48	hr/month		
	576	hr/year		
H2S PTE (lbs/yr)	41.53	below de minimis		
CO2e PTE (tpy)	184.4	Included in GHG PSEL		

1. Venting is a subcategory of RTO operation.
2. CH_4 that is not combusted during RTO venting is included.
3. Other GHG (CO_2 and N_2O) emissions are accounted for in normal RTO operation.
4. Represents the average of all 2022 - 2025 data (n=422).

GHG Emission Calculations									
			CO_2						
Emission Unit	**Max Fuel Capacity**		**Emission Factor**	**Unit**	**Source**	**Potential CO2 Emissions**		**Highest CO2 Emissions per EU**	
Genset (EU-1) - Digester Gas	106.6	MMscf/yr	52.07	kg CO2/MMBtu	Table C-1, 40 CFR 98	3,672.5	tpy	-	
Genset (EU-1) - Natural Gas	62.7	MMscf/yr	53.06	kg CO2/MMBtu	Table C-1, 40 CFR 98	3,742.3	tpy	3,742.3	tpy
Boiler (EU-2) - Digester Gas	131.4	MMscf/yr	52.07	kg CO2/MMBtu	Table C-1, 40 CFR 98	4,525.2	tpy	-	
Boiler (EU-2) - Natural Gas	131.4	MMscf/yr	53.06	kg CO2/MMBtu	Table C-1, 40 CFR 98	7,839.1	tpy	7,839.1	tpy
Waste Gas Flares (EU-3) - Digester/off-spec gas	525.6	MMscf/yr	52.07	kg CO2/MMBtu	Table C-1, 40 CFR 98	18,100.8	tpy	18,100.8	tpy
Regenerative Thermal Oxidizer (EU-5) - Tail gas	101.6	MMscf/yr	52.07	kg CO2/MMBtu	Table C-1, 40 CFR 98	3,498.9	tpy	3,498.9	tpy
Regenerative Thermal Oxidizer (EU-5) - Natural Gas	0.1	MMscf/yr	53.06	kg CO2/MMBtu	Table C-1, 40 CFR 98	6.1	tpy	6.1	tpy
Total Potential Emissions for All Emission Units:								33,187.2	tpy

GHG Emission Calculations

			CH_4						
Emission Unit	**Max Fuel Capacity**		**Emission Factor**	**Unit**	**Source**	**Potential CH4 Emissions**		**Highest CH4 Emissions per EU**	
Genset (EU-1) - Digester Gas	106.6	MMscf/yr	3.20E-03	kg CH4/MMBtu	Table C-2, 40 CFR 98	0.2	tpy	0.2	tpy
Genset (EU-1) - Natural Gas	62.7	MMscf/yr	1.00E-03	kg CH4/MMBtu	Table C-2, 40 CFR 98	0.1	tpy	-	
Boiler (EU-2) - Digester Gas	131.4	MMscf/yr	3.20E-03	kg CH4/MMBtu	Table C-2, 40 CFR 98	0.3	tpy	0.3	tpy
Boiler (EU-2) - Natural Gas	131.4	MMscf/yr	1.00E-03	kg CH4/MMBtu	Table C-2, 40 CFR 98	0.1	tpy	-	
Waste Gas Flares (EU-3) - Digester/off-spec gas	525.6	MMscf/yr	3.20E-03	kg CH4/MMBtu	Table C-2, 40 CFR 98	1.1	tpy	1.1	tpy
Regenerative Thermal Oxidizer (EU-5) - Tail gas	101.6	MMscf/yr	3.20E-03	kg CH4/MMBtu	Table C-2, 40 CFR 98	0.2	tpy	0.2	tpy
Regenerative Thermal Oxidizer (EU-5) - Natural Gas	0.1	MMscf/yr	1.00E-03	kg CH4/MMBtu	Table C-2, 40 CFR 98	0.0	tpy	0.0	tpy
Total Potential Emissions for All Emission Units:								1.83	tpy

GHG Emission Calculations

			N_2O						
Emission Unit	**Max Fuel Capacity**		**Emission Factor**	**Unit**	**Source**	**Potential N2O Emissions**		**Highest N2O Emissions per EU**	
Genset (EU-1) - Digester Gas	106.6	MMscf/yr	6.30E-03	kg N2O/MMBtu	Table C-2, 40 CFR 98	0.4	tpy	0.4	tpy
Genset (EU-1) - Natural Gas	62.7	MMscf/yr	1.00E-03	kg N2O/MMBtu	Table C-2, 40 CFR 98	0.1	tpy	-	
Boiler (EU-2) - Digester Gas	131.4	MMscf/yr	6.30E-03	kg N2O/MMBtu	Table C-2, 40 CFR 98	0.5	tpy	0.5	tpy
Boiler (EU-2) - Natural Gas	131.4	MMscf/yr	1.00E-03	kg N2O/MMBtu	Table C-2, 40 CFR 98	0.1	tpy	-	
Waste Gas Flares (EU-3) - Digester/off-spec gas	525.6	MMscf/yr	6.30E-03	kg N2O/MMBtu	Table C-2, 40 CFR 98	2.2	tpy	2.2	tpy
Regenerative Thermal Oxidizer (EU-5) - Tail gas	101.6	MMscf/yr	6.30E-03	kg N2O/MMBtu	Table C-2, 40 CFR 98	0.4	tpy	0.4	tpy
Regenerative Thermal Oxidizer (EU-5) - Natural Gas	0.1	MMscf/yr	1.00E-03	kg N2O/MMBtu	Table C-2, 40 CFR 98	0.0	tpy	0.0	tpy
Total Potential Emissions for All Emission Units:								3.6	tpy