

Facility Name:**Orange County Sanitation District - Plant 1**

Facility ARB ID: 100255

Facility Reporting Year: 2022

Confidential Data Indication Set to "No" by Reporter

Certification Statement:

The designated representative or alternate designated representative must sign (i.e., agree to) this certification statement. If you are an agent and you click on "SUBMIT", you are not agreeing to the certification statement, but are submitting the certification statement on behalf of the designated representative or alternate designated representative who is agreeing to the certification statement. An agent is only authorized to make the electronic submission on behalf of the designated representative, not to sign (i.e., agree to) the certification statement.

Facility Representatives

Agent: Sai Lee
Alternate Designated Representative: RANDA ABUSHABAN
Designated Representative: Tom Meregillano

Facility Location

Physical Address: 10844 Ellis Avenue
City: Fountain Valley
State / Province: CA
ZIP / Postal Code: 92708
Country:

Latitude: 33.69404
Longitude: -117.93807

County: ORANGE
Air Basin: SOUTH COAST
District: SOUTH COAST AQMD

Mailing Address: 10844 Ellis Avenue
City: Fountain Valley
State / Province: CA
ZIP / Postal Code: 92708
Country:

Payment Information (required if subject to AB 32 Cost of Implementation Fee Regulation)

Responsible Party for Payment:
Responsible Party Email:
Responsible Party Phone:
Billing Address:
City:
State / Province:
ZIP / Postal Code:
Country:

Owners / Operators

Name: Orange County Sanitation District

Facility or Entity Total GHG Emissions Summary

CO2 equivalent emissions, excluding biogenic (subparts C – AA):	2,776.032115 Metric Tons
Exempt biogenic CO2 emissions (subparts C – AA):	22,720.330137 Metric Tons
CO2 equivalent emissions from fuel supplier categories, excluding biogenic (subparts MM – NN):	0 Metric Tons
Exempt biogenic CO2 emissions from fuel supplier categories (subparts MM – NN):	0 Metric Tons
CO2 emissions from CO2 Suppliers (excluding biogenic) (subpart PP):	0 Metric Tons
Exempt biogenic CO2 emissions from CO2 Suppliers (subpart PP):	0 Metric Tons
CO2 equivalent emissions from electric power entities:	0 Metric Tons

Covered CO2 equivalent emissions: 2,776.032115 Metric Tons

De Minimis CO2 equivalent emissions:	0 Metric Tons
Maximum allowable De Minimis emissions:	764.890868 Metric Tons

General Facility Reporting Information

NAICS Codes

Primary:	221320 (Sewage Treatment Facilities)
Second Primary:	
Additional:	

U.S. Parent Companies

Parent Company Name:	ORANGE COUNTY SANITATION DISTRICT (OCSD)
Address:	10844 ELLIS AVENUE, FOUNTAIN VALLEY, CA 92708
Percentage of Ownership Interest:	100%
Country:	UNITED STATES

GHG Report Start Date:	2022-01-01
GHG Report End Date:	2022-12-31

Explanation of any calculation methodology changes during the reporting year:

EPA e-GGRT Facility IDs

Full or Abbreviated GHG Report:	Full
Company or Entity qualifies for Small Business Status:	No

Electricity Purchases/Acquisitions for Reporting Facilities (95104(d))

Electricity Provider's Name:	Southern California Edison (SCE)
Provider's ARB ID:	3005
Purchases/Acquisitions:	46,519.7 MWh

Natural Gas Purchases/Acquisitions for Reporting Facilities [95115(k), 95103(a)(1)]

Natural Gas Supplier Name:	Southern California Gas Company (SCG)
Supplier's ARB ID:	5002
Customer Number:	10471095009
Purchases/Acquisitions:	36,197.62 MMBtu
Was this natural gas received directly from an interstate pipeline?	No
Do you grant CARB staff permission to share confidential annual natural gas fuel purchase data with your identified natural gas fuel supplier?	No

Natural Gas Supplier Name:	Southern California Gas Company (SCG)
Supplier's ARB ID:	5002
Customer Number:	10261095938
Purchases/Acquisitions:	15,806.71 MMBtu
Was this natural gas received directly from an interstate pipeline?	No
Do you grant CARB staff permission to share confidential annual natural gas fuel purchase data with your identified natural gas fuel supplier?	No

Cap-and-Trade Facilities: Increases and Decreases in Facility Emissions [95104(f)]:

For facilities subject to Cap-and-Trade requirements: Have total facility emissions increased or decreased more than 5% in relation to the previous data year? [Not applicable for fuel suppliers, CO2 suppliers, electric power entities, and abbreviated reporters.]

NA (Not applicable: Reporting as an abbreviated reporter, fuel supplier, CO2 supplier, or electric power entity.)

Note: This section is not subject to the third-party verification requirements

Electricity Generation

Facility has the capacity to generate electricity:	Yes
CEC ID (if applicable):	G0483
EIA ID (if applicable):	50696
FERC QFID (if applicable):	2460
CAISO ID (if applicable):	NA
Total Facility Nameplate Generating Capacity:	7.5 MW
Facility Type:	

Independently operated and sited cogeneration facility

Facility's Energy Disposition:

Does not provide any generated energy outside of the facility boundary

Generated electricity used for other on-site industrial processes that are not in support of or a part of the power generation system:	39,861.13 MWh
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Reported emissions include emissions from a	Yes
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cogeneration/bigeneration unit:

Parasitic Steam Use: Generated thermal energy used for supporting power production (excluding steam used directly for generating electricity) [95112(a)(5)(B)]: 0 MMBtu

Generated thermal energy for on-site industrial applications not related to electricity generation [95112(a)(5)(C)]: 54,640 MMBtu

Subpart C: General Stationary Fuel Combustion

Gas Information Details

Gas Name	Gas Quantity (Metric Tons)
Methane	1.446398
Exempt Biogenic Carbon dioxide	22,720.330137
Nitrous Oxide	0.279906
Carbon Dioxide	2,656.460253
Total CO2e	25,496.362251

Total Covered CO2e Emissions: 2,776.032115 (Metric Tons)

Emissions shown above that are claimed as De Minimis (CO2e): 0 Metric Tons

Unit Details

Unit Name: Boiler
Configuration Type: Single Unit Using Tiers 1, 2, or 3
Unit Type: OB (Boiler, other)
Unit Description: Boiler, Hurst Boiler and Welding Company, Model No. S5-250-125W, 10.5MMBTU/Hr

Individual Unit Details

Maximum Rated Heat Input Capacity: 10.5 mmBtu/hr

Electricity Generation Unit Information

Does this configuration have the capacity to generate electricity? No

Emission Details: Configuration-Level Summary (User entered values)

Total exempt annual biogenic CO2 mass emissions (must equal the sum of calculated annual exempt biogenic CO2) (metric tons): 120.90245

Annual CO2 emissions from sorbent (metric tons): 0

Fuel-Specific Emissions Information

Fuel: Biogas (Captured methane) - Biomass-Derived Fuels - Gaseous

Unit Name: GP-Cogen
Configuration Type: Aggregation of Units
Unit Type: OCS (Other combustion source)
Unit Description:
 3 Internal Combustion Engines, each a Cooper Bessmer, Model No. LSVB-12-SGC,
 3471 HP, 2500 KW Electric Generator, 5008500 BTU/Hr capacity.

Small Unit Aggregation Details

Highest Maximum Rated Heat Input Capacity: 5.0085 mmBtu/hr
 Type of Emission Unit for this Group [Note: EGU/EGS must always be separated from other unit types]: Electricity generating unit/system (EGU/EGS)

Electricity Generation Unit Information

Does this configuration have the capacity to generate electricity? Yes
 Is this configuration a Part 75 unit? No
 Nameplate Generating Capacity: 7.5 MW
 Prime Mover Technology: Internal Combustion Engine
 Type of Thermal Energy Generation: Cogeneration Topping Cycle
 95112(b)(2): Gross Generation: 42,029 MWh
 95112(b)(2): Net Generation: 39,861.13 MWh
 95112(b)(3): Total Thermal Output (for Cogeneration or Bigeneration): 54,640 MMBtu
 95112(b)(8): Other Steam Used for Electricity Generation: 0 MMBtu
 95112(b)(8): Input Steam to the Steam Turbine (for bottoming cycle cogeneration units only) 0 MMBtu
 95112(b)(8): Output of the Heat Recovery Steam Generator (for bottoming cycle cogeneration units only) 0 MMBtu
 95112(e): Geothermal Steam Utilized: 0 MMBtu
 The source of geothermal generation:
 95112(f): Stationary Hydrogen Fuel Cell: Fuel Type and Provider (if not reported elsewhere)
 Additional Comments and Information

Emission Details: Configuration-Level Summary (User entered values)

Total exempt annual biogenic CO2 mass emissions (must equal the sum of calculated annual exempt biogenic CO2) (metric tons): 22,599.427687
 Annual CO2 emissions from sorbent (metric tons): 0

Fuel-Specific Emissions Information

Fuel:
Biogas (Captured methane) - Biomass-Derived Fuels - Gaseous
 Calculation Methodology: Tier 2 (Equation C-2a)
 Methodology Start Date: 2017-01-01
 Methodology End Date: 2022-12-31
 Percentage of Fuel that is Biogenic: 100%

Frequency of HHV determinations: Monthly

Fuel Emission Details

Total CO2 emissions: 22,599.427687 Metric Tons
Total CH4 emissions: 1.388864 Metric Tons
Total N2O emissions: 0.273433 Metric Tons
Total CH4 emissions CO2e: 34.72161 Metric Tons
Total N2O emissions CO2e: 81.482937 Metric Tons

Equation Inputs

Mass or Volume of Fuel Combusted per Year: 700,032,452.8 scf
Annual Average High Heat Value: 0.00062 mmBtu/scf
Fuel Specific CO2 Emissions Factor: 52.07 kg CO2/MMBtu
Fuel Specific CH4 Emissions Factor: 0.0032 kg CH4/MMBtu
Fuel Specific N2O Emissions Factor: 0.00063 kg N2O/MMBtu

HHV Substitute Data Information - Identify each month for which the monthly HHV value is calculated using one or more substitute data values.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
N	N	N	N	N	N	N	N	N	N	N	N

Fuel:

Calculation Methodology:
Methodology Start Date:
Methodology End Date:
Percentage of Fuel that is Biogenic:
Frequency of HHV determinations:

Natural Gas - Natural Gas

Tier 2 (Equation C-2a)
2017-01-01
2022-12-31
0%
Monthly

Fuel Emission Details

Total CO2 emissions: 1,817.80055 Metric Tons
Total CH4 emissions: 0.034285 Metric Tons
Total N2O emissions: 0.003429 Metric Tons
Total CH4 emissions CO2e: 0.85713 Metric Tons
Total N2O emissions CO2e: 1.021699 Metric Tons

Equation Inputs

Mass or Volume of Fuel Combusted per Year: 33,286,588.14 scf
Annual Average High Heat Value: 0.00103 mmBtu/scf
Fuel Specific CO2 Emissions Factor: 53.02 kg CO2/MMBtu
Fuel Specific CH4 Emissions Factor: 0.001 kg CH4/MMBtu
Fuel Specific N2O Emissions Factor: 0.0001 kg N2O/MMBtu

HHV Substitute Data Information - Identify each month for which the monthly HHV value is calculated using one or more substitute data values.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
N	N	N	N	N	N	N	N	N	N	N	N

Unit Name:

Configuration Type:

Unit Type:

Unit Description:

GP-Comfort Heating/Misc NaturalGas Usage

Aggregation of Units

OCS (Other combustion source)

Natural Gas supply for space heating/comfort heating, water heaters, bunsen burners in the laboratory, flare complex pilots, and hot water tank natural gas pilot.

Small Unit Aggregation Details

Highest Maximum Rated Heat Input Capacity: 1.995 mmBtu/hr
 Type of Emission Unit for this Group [Note: EGU/EGS must always be separated from other unit types]: Other (none of the above)

Electricity Generation Unit Information

Does this configuration have the capacity to generate electricity? No

Emission Details: Configuration-Level Summary (User entered values)

Total exempt annual biogenic CO2 mass emissions (must equal the sum of calculated annual exempt biogenic CO2) (metric tons): 0
 Annual CO2 emissions from sorbent (metric tons): 0

Fuel-Specific Emissions Information

Fuel: **Natural Gas - Natural Gas**
 Calculation Methodology: Tier 2 (Equation C-2a)
 Methodology Start Date: 2014-01-01
 Methodology End Date: 2022-12-31
 Percentage of Fuel that is Biogenic: 0%
 Frequency of HHV determinations: Monthly

Fuel Emission Details

Total CO2 emissions: 837.518173 Metric Tons
 Total CH4 emissions: 0.015796 Metric Tons
 Total N2O emissions: 0.00158 Metric Tons
 Total CH4 emissions CO2e: 0.394907 Metric Tons
 Total N2O emissions CO2e: 0.470729 Metric Tons

Equation Inputs

Mass or Volume of Fuel Combusted per Year: 15,336,183.33 scf
 Annual Average High Heat Value: 0.00103 mmBtu/scf
 Fuel Specific CO2 Emissions Factor: 53.02 kg CO2/MMBtu
 Fuel Specific CH4 Emissions Factor: 0.001 kg CH4/MMBtu
 Fuel Specific N2O Emissions Factor: 0.0001 kg N2O/MMBtu

HHV Substitute Data Information - Identify each month for which the monthly HHV value is calculated using one or more substitute data values.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
N	N	N	N	N	N	N	N	N	N	N	N

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