III-n | AIR EMISSIONS TECHNICAL SUMMARY

The project's primary source of air emissions will be stationary diesel backup generators. The facility will install up to twelve (12) diesel backup generators rated at 2.7 megawatts (MW) each. These generators, which are Tier 2 certified, will be equipped with Miratech emissions control technology intended to control emissions of oxides of nitrogen (NOx), volatile organic compounds (VOC), and particulate matter (PM) to meet the United States Environmental Protection Agency's Tier 4 exhaust emissions standards established in 40 CFR Part 1039 Subpart B.

The primary purpose of the emergency generators will be to operate in the event of a utility outage or onsite electrical failure (i.e., emergency situations); however, they will also be operated for the following limited purposes to ensure ongoing generator functionality and reliability:

- One-time commissioning event – typically less than 20 hours per generator
- Monthly maintenance and reliability testing – one 15- to 30-minute run at 0% load, once per month per generator
- Annual load test – one 2- to 4-hour loaded run, once per year per generator

Regulatory Compliance and Permitting

Per guidance from NYSDEC, the facility is applying for an Air State Facility (ASF) permit. As part of the permit application, the facility is requesting an enforceable limitation on the operation of each emergency generator to 500 hours per year in accordance with 6 New York Codes, Rules, and Regulations Part 200 Section 200.1(cq). With the installation of emissions controls, the Facility's potential to emit at 500 hours per generator per year is below the Title V major source thresholds in New York State and thus the facility is eligible for an ASF.

Though the facility is applying for an ASF, individually, the generators are not subject to the permitting requirements provided in 6 NYCRR Part 201-5 or Part 201-6 since they are considered an exempt source under 6 NYCCR 201-3.2(c)(6). Additionally, the diesel fuel storage tanks and the urea storage tanks for the emissions control devices with storage capacities below 300,000 barrels and 10,000 gallons are also considered an exempt source under 6 NYCRR 201-3.2(c)(21) and 6 NYCRR 2013.2(c)(25), respectively.

Operational Maintenance and Limits

Generator operating time will be tracked through the use of a non-resettable hour meter installed on each engine, as required by federal air regulations applicable to internal combustion engines. Readings will be recorded from the non-resettable hour meters at the beginning and end of each engine run to establish the overall length of each run.

In addition to the requested limitation on emergency generator operations, each engine will be subject to the run time restrictions for emergency engines under the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (NSPS Subpart IIII), which limit reliability-related activities such as maintenance and testing to no more than 100 hours per calendar year per engine and non-emergency usage to no more than 50 hours per calendar year per engine (included within the 100 hours per calendar year limitation for reliability-related purposes.

Estimated Annual Emissions (Total Campus)

Pollutant	Project Estimated Emissions (Actual)*	STAMP DGEIS / Major Source Threshold
Oxides of Nitrogen (NOx)	**~1.2 tpy**	100 tpy (DGEIS Impact Threshold) / 50 tpy (AFR Cap)
Carbon Monoxide (CO)	**~6.2 tpy**	100 tpy
Particulate Matter (PM_{10}/$PM_{2.5}$)	**<0.1 tpy**	100 tpy
Volatile Organic Compounds (VOC)	**~0.34 tpy**	50 tpy
Sulfur Dioxide (SO_2)	**< 0.1 tpy**	100 tpy
Hazardous Air Pollutants (HAPs)	**< 0.1 tpy**	25 tpy (Aggregate) / 10 tpy (Individual)
Greenhouse Gases (CO_2)	**Proposed: 1,056 MT (100-yr) 1,059 MT (20-yr)**	25,000 metric tons (Reporting Threshold)

* Emissions shown are based on 50 hours of projected actual run time per generator per year and have been estimated using Kohler KD2500A (KD62V12A) engine specifications and Miratech control technology specifications.

Additional Note: Diesel generators do not emit perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), or sulfur hexafluoride (SF_6).

Table B-1
Emission Unit Matrix
Stream U.S. Data Centers, LLC - BUFA Site
Alabama, NY

Emission Unit ID[a]	Emission Unit Description	Process ID	Process Description	Building #	Source ID	Source Description	Control Device ID	Control Device	Stack ID
1-GEN01	This emission unit includes twelve (12) Tier 2-certified 2.7 MW Kohler KD62V12A diesel-fired emergency generators that will provide electricity to the Facility in the event of an emergency. The generators will be equipped with Miratech emissions control technology intended to control emissions of NOx, VOC, and PM to conform to Tier 4 emissions standards.	GEN	This process consists of the operation of 12 diesel back-up generator sets that exhaust to Stack IDs 00001 through 00012.	OUTSIDE	GEN01	2,700 kW diesel back-up generator	SCR01	Miratech Emissions Controls[b]	00001
				OUTSIDE	GEN02	2,700 kW diesel back-up generator	SCR02	Miratech Emissions Controls[b]	00002
				OUTSIDE	GEN03	2,700 kW diesel back-up generator	SCR03	Miratech Emissions Controls[b]	00003
				OUTSIDE	GEN04	2,700 kW diesel back-up generator	SCR04	Miratech Emissions Controls[b]	00004
				OUTSIDE	GEN05	2,700 kW diesel back-up generator	SCR05	Miratech Emissions Controls[b]	00005
				OUTSIDE	GEN06	2,700 kW diesel back-up generator	SCR06	Miratech Emissions Controls[b]	00006
				OUTSIDE	GEN07	2,700 kW diesel back-up generator	SCR07	Miratech Emissions Controls[b]	00007
				OUTSIDE	GEN08	2,700 kW diesel back-up generator	SCR08	Miratech Emissions Controls[b]	00008
				OUTSIDE	GEN09	2,700 kW diesel back-up generator	SCR09	Miratech Emissions Controls[b]	00009
				OUTSIDE	GEN10	2,700 kW diesel back-up generator	SCR10	Miratech Emissions Controls[b]	00010
				OUTSIDE	GEN11	2,700 kW diesel back-up generator	SCR11	Miratech Emissions Controls[b]	00011
				OUTSIDE	GEN12	2,700 kW diesel back-up generator	SCR12	Miratech Emissions Controls[b]	00012

Notes:

(a) This table does not include permit exempt/trivial activities.

(b) Each all-in-one control device features selective catalytic reduction, a diesel particulate filter, and an oxidation catalyst.

Table C-2
Facility-Wide Generators
Summary of Actual and Potential Emissions
Stream U.S. Data Centers, LLC - BUFA Site
Alabama, NY

Sources and Pollutants	CAS Number	Vendor Guaranteed Emission Factors[a,b]	Emission Factors[c,d]	Total Actual Emissions[e,g]		Total Potential Emissions[f,g]	
		(g/HP-hr/gen)	(lb/MMBtu/gen)	(lb/yr)	(tpy)	(lb/yr)	(tpy)
Kohler KD2500A (KD62V12A Engine Model)							
Emergency Diesel Generator Set							
Carbon Monoxide	00630-08-0	2.6	---	12,453	6.2	124,526	62
Sulfur Dioxide	07446-09-5	---	1.5E-03	22	1.1E-02	216	0.11
PM (Total)	NY075-00-0	2.0E-02	---	96	4.8E-02	958	0.48
PM_{10}	NY075-00-5	2.0E-02	---	96	4.8E-02	958	0.48
$PM_{2.5}$	NY075-02-5	2.0E-02	---	96	4.8E-02	958	0.48
Nitrogen Oxides	NY210-00-0	0.50	---	2,395	1.2	23,947	12
Volatile Organic Compounds	NY998-00-0	0.14	---	671	0.34	6,705	3.4
Methane	00074-82-8	---	6.6E-03	94	4.7E-02	941	0.47
Carbon Dioxide	00124-38-9	---	163	2,320,767	1,160	23,207,669	11,604
Nitrous Oxide	10024-97-2	---	1.3E-03	19	9.4E-03	188	9.4E-02
CO_2e (100-yr)	0NY750-00-0	---	---	2,328,392	1,164	23,283,919	11,642
Total HAPs	NY100-00-0	---	---	22	1.1E-02	224	0.11
Formaldehyde	00050-00-0	---	7.9E-05	1.1	5.6E-04	11	5.6E-03
Benzo(a)pyrene	00050-32-8	---	2.6E-07	3.7E-03	1.8E-06	3.7E-02	1.8E-05
Dibenz(a,h)anthracene	00053-70-3	---	3.5E-07	4.9E-03	2.5E-06	4.9E-02	2.5E-05
Benz(a)anthracene	00056-55-3	---	6.2E-07	8.9E-03	4.4E-06	8.9E-02	4.4E-05
Benzene	00071-43-2	---	7.8E-04	11	5.5E-03	110	5.5E-02
Acetaldehyde	00075-07-0	---	2.5E-05	0.36	1.8E-04	3.6	1.8E-03
Acenaphthene	00083-32-9	---	4.7E-06	6.7E-02	3.3E-05	0.67	3.3E-04
Phenanthrene	00085-01-8	---	4.1E-05	0.58	2.9E-04	5.8	2.9E-03
Fluorene	00086-73-7	---	1.3E-05	0.18	9.1E-05	1.8	9.1E-04
Naphthalene	00091-20-3	---	1.3E-04	1.9	9.3E-04	19	9.3E-03
Acrolein	00107-02-8	---	7.9E-06	0.11	5.6E-05	1.1	5.6E-04
Toluene	00108-88-3	---	2.8E-04	4.0	2.0E-03	40	2.0E-02
Anthracene	00120-12-7	---	1.2E-06	1.8E-02	8.8E-06	0.18	8.8E-05
Pyrene	00129-00-0	---	3.7E-06	5.3E-02	2.6E-05	0.53	2.6E-04
Benzo(g,h,i)perylene	00191-24-2	---	5.6E-07	7.9E-03	4.0E-06	7.9E-02	4.0E-05
Indeno(1,2,3-cd)pyrene	00193-39-5	---	4.1E-07	5.9E-03	2.9E-06	5.9E-02	2.9E-05
Benzo(b)fluoranthene	00205-99-2	---	1.1E-06	1.6E-02	7.9E-06	0.16	7.9E-05
Fluoranthene	00206-44-0	---	4.0E-06	5.7E-02	2.9E-05	0.57	2.9E-04
Benzo(k)fluoranthene	00207-08-9	---	2.2E-07	3.1E-03	1.6E-06	3.1E-02	1.6E-05
Acenaphthylene	00208-96-8	---	9.2E-06	0.13	6.6E-05	1.3	6.6E-04
Chrysene	00218-01-9	---	1.5E-06	2.2E-02	1.1E-05	0.22	1.1E-04
Xylenes	01330-20-7	---	1.9E-04	2.7	1.4E-03	27	1.4E-02

Constants:

Number of Generators	12
Generator Engine Power Output Rating[h] (HP/gen)	3,621
High Heating Value[i] (MMBtu/gal/gen)	0.1372
Maximum Fuel Consumption Rate[h] (gal/hr/gen)	172.9
Projected Actual Operating Hours per Generator[j] (hr	50
Potential Operating Hours per Generator[k] (hr/yr/gen	500

Notes:

(a) Vendor guaranteed emission factors were provided by Miratech for NOx, CO, NMNEHC, and PM. These emission factors represent steady-state operation after the emission control devices start-up.

(b) VOC emission factor is assumed to be equal to the NMNEHC factor provided by Miratech. Methane and ethane are not considered VOCs per 6 NYCRR 200.1(cg), therefore, this factor represents all other hydrocarbons.

(c) AP-42 emission factors for hazardous air pollutants are obtained from USEPA's Compilation of Air Pollution Emission Factors, Volume I, Fifth Edition, AP-42, Chapter 3, Section 3.4. Emission factors for greenhouse gases are obtained from 40 CFR 98, Subpart C, Tables C-1 and C-2 for No. 2 distillate fuel oil combustion and converted from kg/MMBtu to lb/MMBtu.

(d) SO_2 emission factor assumes that all sulfur in the fuel is converted to SO_2 and is calculated based on the formula in AP-42, Section 3.4 assuming an ultra low sulfur diesel (ULSD) fuel content of 0.0015% sulfur by weight.

Table C-2
Facility-Wide Generators
Summary of Actual and Potential Emissions
Stream U.S. Data Centers, LLC - BUFA Site
Alabama, NY

(e) Actual Emissions (lb/yr) = Number of Generators (Number) x Vendor Guaranteed Emission Factors (g/bhp-hr) x Power Output Rating (HP) x Projected Actual Operating Hours (hr/yr) ÷ 453.59 (g/lb)

Actual Emissions (lb/yr) = Number of Generators (Number) x AP-42 Emission Factors (lb/MMBtu) x High Heating Value (MMBtu/gal) x Maximum Fuel Consumption Rate (gal/hr) x Projected Actual Operating Hours (hr/yr)

Actual Emissions (ton/yr) = Actual Emissions (lb/yr) ÷ 2,000 (lb/ton).

(f) Potential Emissions (lb/yr) = Number of Generators (Number) x Vendor Guaranteed Emission Factors (g/bhp-hr) x Power Output Rating (HP) x Potential Operating Hours (hr/yr) ÷ 453.59 (g/lb)

Potential Emissions (lb/yr) = Number of Generators (Number) x AP-42 Emission Factors (lb/MMBtu) x High Heating Value (MMBtu/gal) x Maximum Fuel Consumption Rate (gal/hr) x Potential Operating Hours (hr/yr)

Potential Emissions (ton/yr) = Potential Emissions (lb/yr) ÷ 2,000 (lb/ton).

(g) Actual and potential emissions of CO_2e are calculated as the sum of each applicable GHG pollutant multiplied by its global warming potential obtained from 40 CFR 98, Subpart A, Table A-1.

(h) Generator engine power output rating and maximum fuel consumption rate are obtained from the manufacturer specifications sheet. The maximum fuel consumption rate value conservatively represents the standby rating for generator operation at 100% load.

(i) High Heating Value based on Table A4 of the Appendix A to the 2025 NYS Statewide GHG Emissions Report. Available at: https://dec.ny.gov/environmental-protection/climate-change/greenhouse-gas-emissions-report/. Accessed: March 2026.

(j) Projected Actual Operating Hours reflect regularly scheduled maintenance and testing events as well as a reasonable estimate of unforeseeable emergency usage for a total of 50 hr/yr/gen. Foreseeable routine maintenance and testing usage is anticipated to be less than 24 hr/yr/gen.

(k) Potential Operating Hours for the emergency generators are assumed to be 500 hr/yr consistent with 6 NYCRR 200.1(cq).

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Regulatory Discussion
Stream U.S. Data Centers, LLC – BUFA Site
Alabama, New York

Stream U.S. Data Centers, LLC (Stream Data Centers) is submitting this Air State Facility (ASF) permit application to the New York State Department of Environmental Conservation (NYSDEC) Division of Air Resources for authorization to construct and operate up to twelve (12) Tier 2-certified 2.7-megawatt (MW) diesel-fueled emergency generator sets with integral diesel fuel belly tanks at the Stream Data Centers "BUFA" site in Alabama, Genesee County, New York (the "Facility" or "Site"). The generators will be equipped with Miratech emissions control technology intended to control emissions of oxides of nitrogen (NOx), volatile organic compounds (VOC), and particulate matter (PM) to conform to the United States Environmental Protection Agency's Tier 4 exhaust emissions standards established in 40 CFR Part 1039 Subpart B. The BUFA site is split between two campuses located at the Western New York Science and Technology Advanced Manufacturing Park. This regulatory discussion outlines some of the key New York State and Federal regulations applicable to the proposed Facility.

NEW YORK STATE REGULATIONS

Title 6 of the New York Codes, Rules and Regulations Subpart 201-5 (State Facility Permit)

With this ASF application, the Facility is requesting an enforceable limitation on the operation of each emergency generator to 500 hours per year in accordance with 6 NYCRR 200.1(cq). With the installation of emission control devices, the Facility's potential to emit at 500 hours per generator per year is below the Title V major source thresholds in New York State.

6 NYCRR SUBPART 201-3 (PERMIT EXEMPT AND TRIVIAL ACTIVITIES)

Individually, the generators are not subject to the permitting requirements provided in 6 NYCRR Part 201-5 or Part 201-6 since they are considered an exempt source under 6 NYCCR 201-3.2(c)(6). Additionally, the diesel fuel storage tanks and the urea storage tanks for the emissions control devices with storage capacities below 300,000 barrels and 10,000 gallons are also considered an exempt source under 6 NYCRR 201-3.2(c)(21) and 6 NYCRR 201-3.2(c)(25), respectively. In accordance with 6 NYCRR 201-3.1(b), emissions from exempt and trivial activities are required to be included in potential to emit calculations when evaluating whether a proposed emission source is subject to Title V major source permitting or New Source Review. However, emissions from the diesel belly storage tanks and urea storage tanks are considered negligible and have not been quantified. A summary of the emission sources for the Project are provided in **Attachment C**, **Table C-1**. Actual and potential annual emissions are estimated for the exempt emergency power generating stationary internal combustion engines at the proposed Facility in **Attachment C**, **Table C-2**.

6 NYCRR SUBPART 225-1 – FUEL COMPOSITION AND USE – SULFUR LIMITATIONS

The diesel generators are subject to 6 NYCRR 225-1.2(d), which establishes a sulfur content limit of 0.0015 percent sulfur by weight of the fuel. The generators at the proposed Facility will comply with this sulfur-in-fuel limitation through the procurement and use of ultra-low sulfur diesel fuel.

6 NYCRR Subpart 227-1 – Stationary Combustion Installations

This subpart applies to stationary combustion installations, except for those subject to New Source Performance Standards (NSPS) under Chapter 40 of the Code of Federal Regulations (40 CFR) Part 60 or the National Emission Standards for Hazardous Air Pollutants (NESHAP) under 40 CFR Part 63. The

emergency diesel generators are subject to NSPS and NESHAP regulations, and therefore are not subject to this regulation.

6 NYCRR Subpart 253 – Mandatory Greenhouse Gas Reporting Program

This subpart applies to facilities with actual emissions of 10,000 metric tons or more per year of greenhouse gases (expressed as carbon dioxide equivalent, CO_2e) that operate in New York after January 1, 2026 and are in one of the applicable facility categories provided in the subpart. At 50 hours of operation per generator per year, the generators have projected actual emissions of CO_2e less than 10,000 metric tons per year and therefore are not anticipated to be routinely subject to this subpart.

CLIMATE LEADERSHIP AND COMMUNITY PROTECTION ACT

The Climate Leadership and Community Protection Act (CLCPA), which became effective January 1, 2020, directs state agencies to assess whether the decisions they make are consistent with the Statewide greenhouse gas (GHG) emission limits established by the CLCPA in Environmental Conservation Law (ECL) Article 75. In the case of NYSDEC, this includes assessing whether permits issued are consistent with or would interfere with the attainment of the Statewide GHG emission limits in ECL Article 75.

In December 2022, NYSDEC issued its guidance, DAR-21, to outline the requirements of the CLCPA for air permit applications. This policy only applies to air facility registrations "where DEC determines an analysis is necessary or appropriate to ensure CLCPA consistency such as projects with significant GHG emissions." A CLCPA analysis for the Project is required and will be submitted under separate cover.

FEDERAL REGULATIONS

New Source Performance Standards

NSPS applies to new stationary sources which emit or have the potential to emit any air pollutant per 40 CFR 60. As such, NSPS applies to the proposed Facility. 40 CFR 60 Subpart A contains general provisions that are referenced by more specific NSPS regulations. The following NSPS regulation is applicable to the proposed Facility.

40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)

NSPS Subpart IIII applies to new, modified, and reconstructed compression ignition (CI) internal combustion engines (ICE). New engines are subject to this regulation if construction of the stationary CI ICE commences after July 11, 2005, and if the engine is manufactured after April 1, 2006, for CI ICE that are not fire pump engines. This rule will apply to the proposed new diesel-fueled stationary CI ICE, and all of the proposed generators will meet the definition of emergency stationary ICE under 40 CFR 60.4219.

National Emission Standards for Hazardous Air Pollutants

Under 40 CFR 63, NESHAP applies to both existing and new stationary sources which emit or have the potential to emit one or more hazardous air pollutants listed in this part pursuant to Section 112(b) of the Clean Air Act. The proposed Facility will have HAP emissions below the Title V major source thresholds of 10 tpy for a single HAP and 25 tpy for any combination of HAPs and thus will be an area source of HAPs. Therefore, NESHAP applies to the proposed new stationary source Facility. 40 CFR 63 Subpart A contains general provisions that are referenced by more specific NESHAP regulations. The following NESHAP regulation is applicable to the proposed Facility.

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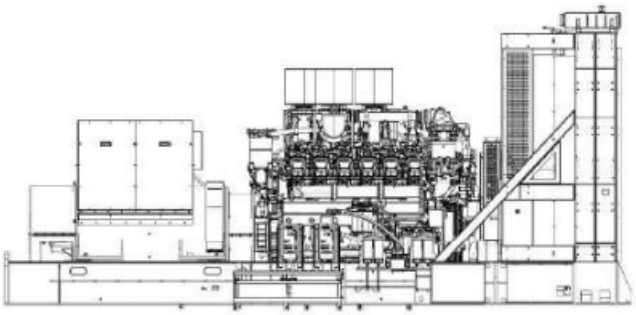
40 CFR 63, Subpart ZZZZ - National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

NESHAP Subpart ZZZZ applies to new, existing, and reconstructed stationary reciprocating internal combustion engines (RICE) located at both major and area sources of HAP emissions. New stationary RICE located at an area source of HAP emissions are subject to this regulation if they are constructed after June 12, 2006 and their start-up commences after January 18, 2008. This rule will apply to the proposed new stationary RICE, and the proposed generators will meet the definition of emergency stationary RICE under 40 CFR 63.6675.

Pursuant to 40 CFR 63.6590(c), for new or reconstructed stationary RICE located at an area source of HAP emissions, the only requirement under NESHAP Subpart ZZZZ is to meet the requirements of NSPS Subpart IIII for CI ICE. Since the proposed generators at the Facility will comply with NSPS Subpart IIII, the units will also be in compliance with NESHAP Subpart ZZZZ.



Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- Approved for use with certified renewable Hydrotreated Vegetable Oil (HVO) / Renewable Diesel (RD) fuels compliant with EN15940/ASTM D975.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- cULus listing (UL 2200 and CSA C22.2 No. 100).
- The generator set accepts rated load in one step.
- The 60 Hz emergency generator set meets NFPA 110, Level 1, when equipped with the necessary accessories and installed per NFPA standards.
- A standard three-year unlimited-hour warranty for standby applications in the U.S. and Canada.. Five-year basic, five-year comprehensive, and ten-year extended limited warranties are also available.
- A standard two-year or 8700-hour limited warranty for prime power applications.

Alternator Features

- The pilot-excited, permanent magnet (PM) alternator provides superior short-circuit capability.
- All models are brushless, rotating-field alternators.
- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and dripproof construction.
- Superior voltage waveform from two-thirds pitch windings and skewed stator.

Other Features

- Kohler designed controllers for one-source system integration and remote communication.
- The low coolant level shutdown prevents overheating (standard on radiator models only).Conscious Care qualified. Reduce operating cost, fuel consumption, and greenhouse gas emisisons.

Enclosure Features

- See Enclosure Spec sheet for details.

Generator Set Rating

Standby 130C Rise Ratings

Alternator	Voltage	Ph	Hz	Peak kVA	kW/kVA	Amps
KH07801TO4D	277/480	3	60	9957	2500/3125	3759

RATINGS: All three-phase units are rated at 0.8 power factor.

Model: KD2500-A, continued

Alternator Specifications

Specifications	Alternator
Alternator manufacturer	Kohler
Type	4-Pole, Rotating-Field
Exciter type	Brushless, Permanent-Magnet Pilot Exciter
Voltage regulator	Solid State, Volts/Hz
Insulation	NEMA MG1, UL 1446, Vacuum Pressure Impregnated (VPI)
Insulation: Material	Class H, Synthetic, Nonhydroscopic
Insulation: Temperature Rise	130°C, 150°C Standby
Bearing: quantity, type	1 or 2, Sealed
Coupling	Flexible disc or Coupling
Amortisseur windings	Full
Rotor balancing (60Hz)	125%
Alternator winding type	> 600 V Random Wound, < 600 V Form Wound
Voltage regulation, no-load to full-load RMS	+/-0.25%
Unbalanced load capability	100% of Rated Standby Current

• The pilot-excited, permanent magnet (PM) alternator provides superior short-circuit capability.
• All models are brushless, rotating-field alternators.
• NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
• Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
• Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
• Self-ventilated and dripproof construction.
• Superior voltage waveform from two-thirds pitch windings and skewed stator.
• Brushless alternator with brushless pilot exciter for excellent load response.

Engine

Engine Specification

Engine Manufacturer	Kohler Diesel
Engine Model	KD62V12A
Engine: type	4-Cycle, Turbocharged, Intercooled
Cylinder arrangement	12-V
Displacement, L (cu. in.)	62 (3783)
Bore and stroke, mm (in.)	175 x 215 (6.89 x 8.46)
Compression ratio	16.0:1
Piston speed, m/min. (ft./min.)	774 (2539)
Main bearings: quantity, type	7, Precision Half Shells
Rated rpm	1800
Max. power at rated rpm, kWm (BHP)	2700 (3621)
Cylinder head material	Cast Iron
Crankshaft material	Steel
Valve (exhaust) material	Steel
Governor: type, make/model	KODEC Electronic Control
Frequency regulation, no-load to-full load	Isochronous
Frequency regulation, steady state	±0.25%
Frequency	Fixed
Air cleaner type, all models	Dry

Model: KD2500-A, continued

Exhaust

Exhaust System

Heat rejected to exhaust, kW	2130
Exhaust flow at rated kW,m3/min. (cfm)	533 (18833)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	470 (878_
Maximum allowable back pressure, kPa (in. Hg)	8.5 (2.5)

Engine Electrical

Engine Electrical System

Starter motor qty. at starter motor power rating, rated voltage (DC)	Standard: 2 @ kW, 24; Redundant (optional); 2 @ 15 kW, 24
Battery charging alternator: Ground (negative/positive)	Negative
Battery charging alternator: Volts (DC)	24
Battery charging alternator: Ampere rating	140
Quantity, CCA rating each, type (with standard starters)	4, 1110, AGM
Quantity, CCA rating each, type (with optional redundant starters)	8, 1110, AGM
Battery voltage (DC)	12

Fuel

Fuel System

Fuel type	Diesel
Fuel supply line, min. ID, mm (in.)	25 (1.0)
Fuel return line, min. ID, mm (in.)	19 (0.75)
Max. fuel flow, Lph (gph)	877 (232)
Min./max. fuel pressure at engine supply connection, kPa (in. Hg)	- 50/50 (- 14.8/14.8)
Maximum diesel fuel lift, m (ft.)	6 (20)
Max. return line restriction, kPa (in. Hg)	30 (8.9)
Fuel filter: quantity, type	2, Primary Engine Filter
Fuel Filter Secondary	2, Fuel/Water Separator
Recommended fuel	#2 Diesel ULSD/HVO/RD

Lubrication

Lubrication System

Type	Full Pressure
Oil pan capacity with filter, L (qt.)	378 (400)
Oil filter: quantity, type	6, Cartridge
Oil cooler	Water-Cooled
Type	Full Pressure
Oil pan capacity with filter, L (qt.)	378 (400)
Oil filter: quantity, type	6, Cartridge
Oil cooler	Water-Cooled

Model: KD2500-A, continued

Cooling

Radiator System

Ambient temperature, °C (°F)	50 (122)
Engine jacket water flow, Lpm (gpm)	2110 (557)
Charge cooler water capacity, Total: radiator + engine, L	368 (97)
Engine jacket water capacity, L (gal.)	180 (48)
Radiator system capacity, including engine, L (gal.)	877 (232)
Radiator system capacity, including engine, L (gal.) (Non-IBC):	509 (134)
Charge cooler water flow, Lpm (gpm)	600 (159)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	884 (50317)
Heat rejected to air charge cooler at rated kW, dry exhaust, kW (Btu/min.)	790 (44967)
Water pump type	Centrifugal
Fan diameter, including blades, mm (in.)	2235 (88) 1901 (75)
Fan, kWm (HP)	90 (120.7) 85 (114)
Max. restriction of cooling air, intake and discharge side of radiator, kPA (in. H20)	0.125 (0.5)

* Enclosure with enclosed silencer reduces ambient temperature capability by 5 °C (9 °F)

Remote Radiator System

Exhaust manifold type	Dry
Connection Size	Class 150 ANSI Flange
Water inlet/outlet, mm (in.)	216 (8.5) Bold Circle
Charge air cooler inlet/outlet (pipe dia. of flange), mm (in.)	178 (7.0) Bolt Circle
Static head allowable above engine, kPa (ft. H2O)	90 (30.1) 70 (23.5)
Note:	Contact your local distributor for cooling system options and specifications based on your specific requirements.

Operation Requirements

Air Requirements

Radiator-cooled cooling air, m3/min. (scfm) *	2809 (99200)
Cooling air required for generator set when equipped with city water cooling or remote radiator, based on 14°C (25°F) rise, m3/min. rise and ambient temp. of 29°C (85°F) m3/min. (cfm)	1048 (37022)
Combustion air, m3/min. (cfm)	204 (7187)
Heat rejected to ambient air: Engine, kW (Btu/min.)	135 (7684)
Heat rejected to ambient air: Alternator, kW (Btu/min.)	160 (9099)

*Air density = 1.20 kg/m3 (0.075 lbm/ft3)

Fuel Consumption

Diesel, Lph (gph), at % load	Rating
Standby Fuel Consumption at 100% load	654.4 Lph (172.9 gph)
Standby Fuel Consumption at 75% load	576.5 Lph (152.3 gph)
Standby Fuel Consumption at 50% load	374.8 Lph (99.0 gph)
Standby Fuel Consumption at 25% load	210.4 Lph (55.6 gph)
Prime Fuel Consumption at 100% load	618.1 Lph (163.3 gph)
Prime Fuel Consumption at 75% load	513.4 Lph (135.7 gph)
Prime Fuel Consumption at 50% load	340.8 Lph (90.0 gph)

KOHLER®

KD2500

60 Hz. Diesel Generator Set
Tier 2 EPA Certified for Stationary Emergency Applications
EMISSION OPTIMIZED DATA SHEET

ENGINE INFORMATION

Model:	KD62V12A	Bore:	175 mm (6.89 in.)
Type:	4-Cycle, 12-V Cylinder	Stroke:	215 mm (8.46 in.)
Aspiration:	Turbocharged, Intercooled	Displacement:	62 L (3783 cu. in.)
Compression ratio:	16:0:1		
Emission Control Device:	Direct Diesel Injection, Engine Control Module, Turbocharger, Charge Air Cooler		

EXHAUST EMISSION DATA		EPA D2 5-mode weighted
HC	(Hydrocarbons)	0.46 g/kWh
NOx	(Oxides of Nitrogen as NO2)	5.33 g/kWh
CO	(Carbon Monoxide)	0.72 g/kWh
PM	(Particulate Matter)	0.13 g/kWh

NOMINAL EMISSION DATA

Cycle point	100% ESP	75% ESP	50% ESP	25% ESP	10% ESP
Power [kW]	2700	2025	1350	675	270
Speed [rpm]	1800	1800	1800	1800	1800
Exhaust Gas Flow [kg/h]	15025	14952	11346	6577	4466
Exhaust Gas Temperature [C]	470	465	400	415	345
NO_X [g/kWh]	8.7	4.7	4.9	5.3	7.0
CO [g/kWh]	0.2	0.6	0.5	1.4	3.3
HC [g/kWh]	0.22	0.26	0.48	0.86	2.26
PM [g/kWh]	0.03	0.14	0.09	0.23	0.27

These are uncontrolled Tier 2 emission values, which will be controlled to Tier 4 final exhaust emission standards with Miratech emissions control technology. Miratech target outlet emission values are 0.5 g/bhp-hr NOx, 2.6 g/bhp-hr CO, 0.14 g/bhp-hr NMNEHC, and 0.02 g/bhp-hr PM.

NOT TO EXCEED EMISSION DATA

Cycle point	100% ESP	75% ESP	50% ESP	25% ESP	10% ESP
NO_X [g/kWh]	10.4	5.7	5.8	6.4	8.4
CO [g/kWh]	0.3	0.8	0.6	1.7	4.1
HC [g/kWh]	0.27	0.32	0.60	1.08	2.82
PM [g/kWh]	0.05	0.25	0.17	0.40	0.47

TEST METHODS AND CONDITIONS

Test Methods:
Steady-State emissions recorded per EPA CFR 40 Part 1065, and ISO8178-1 during operation at rated engine speed (+/-2%) and stated constant load (+/-2%) with engine temperatures, pressures and emission rates stabilized.

Fuel Specification:
ASTM D975 No. 2-D S15 or 40 CFR Part 1065 Petroleum Diesel Fuel.

Reference Conditions:
25 °C (77 °F) Air Inlet Temperature, 40 °C (104 °F) Fuel Inlet Temperature, 100 kPa (29.53 in Hg) Barometric Pressure; 10.7 g/kg (75 grains H2O/lb.) of dry air Humidity (required for NOx correction); Intake Restriction set to maximum allowable limit for clean filter; Exhaust Back pressure set to maximum allowable limit.

Data was taken from a single engine test according to the test methods, fuel specification and reference conditions stated above and is subjected to instrumentation and engine-to-engine variability. Tests conducted with alternate test methods, instrumentation, fuel or reference conditions can yield different results.