

STATEMENT OF BASIS

Title V Air Operation Permit Renewal
Permit No. 0970079-019-AV

APPLICANT

The applicant for this project is Waste Connections of Osceola County, LLC. The applicant's responsible official and mailing address are: Mr. Don Grigg, Region Engineer, Waste Connections, 605 Crescent Executive Court, Suite 340, Lake Mary, Florida 32746.

FACILITY DESCRIPTION

The applicant operates the existing J.E.D. Solid Waste Management Facility in Osceola County at 1501 Omni Way, St. Cloud, Florida.

Waste Connections of Osceola County, LLC (Waste Connections) owns and operates the J.E.D. Solid Waste Management Facility ("J.E.D. Landfill"), which is an active Class I landfill designed to include approximately 360 acres of lined disposal area, comprised of 23 cells with a design capacity 81.5 million tons. The landfill commenced construction in April 2003 and began receiving solid waste in January 2004. The yearly waste acceptance at the Class I landfill has averaged approximately 1,500,000 tons/year (1,360,800 megagram (Mg)/year). The facility also accepts asbestos-containing waste. Currently, the landfill contains four closed and ten active disposal cells.

The landfill is subject to 40 CFR 60 (NSPS) Subpart XXX, Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014, and 40 CFR 63 Subpart AAAA - National Emission Standards for Hazardous Air Pollutants (NESHAP): Municipal Solid Waste Landfills. Since the estimates of non-methane organic compounds (NMOC) emissions are greater than 34 megagrams per year, these federal regulations require the operation of a landfill gas (LFG) collection and control system (GCCS). The landfill has an active GCCS that has been installed in phases to collect generated landfill gas. Gas is conveyed to two (2) utility flares or six (6) Landfill Gas-to-Energy (LFGTE) engines for emissions control.

The facility also operates a hybrid leachate evaporator system, used to support in the management of collected leachate from the landfill, and one 135-kilowatt (kW) stationary emergency generator which is fired by propane.

REGULATED EMISSIONS UNIT IDENTIFICATION NUMBERS AND DESCRIPTIONS

EU No.	Brief Description
<i>Regulated Emissions Units</i>	
001	MSW Class I Landfill with Gas Extraction - Cells 1-23
002	3,600 SCFM Open Candlestick Utility Flare, Flare #1
006	LFGTE Plant - Six (6) LFG-Fired Engines
007	4,800 SCFM Open Candlestick Utility Flare, Flare #2
008	SKAGEN F1200 Hybrid Leachate Evaporator System
009	Emergency Stationary Spark Ignition (SI) Reciprocating Internal Combustion Engine (RICE)

APPLICABLE REGULATIONS

Based on the Title V air operation permit renewal application received on August 26, 2024, this facility is a major source of hazardous air pollutants (HAP). The existing facility is a prevention of significant deterioration (PSD) major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table:

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Regulation	EU No(s).
<i>Federal Rule Citations</i>	
40 CFR 60, Subpart A, NSPS General Provisions	001, 002, 006, 007, 008
40 CFR 60, Subpart XXX, Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014	001, 002, 007, 008
40 CFR 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	006
40 CFR 61, Subpart A, NESHAP General Provisions	001
40 CFR 61, Subpart M, National Emissions Standard for Asbestos	001
40 CFR 63, Subpart A, NESHAP General Provisions	001, 002, 006, 007, 009
40 CFR 63, Subpart AAAA, NESHAP Municipal Solid Waste Facilities	001, 002, 007
40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines	006, 009
<i>State Rule Citations</i>	
Rule 62-4, Florida Administrative Code (F.A.C.) (Permitting Requirements)	001, 002, 006, 007, 009
Rule 62-204, F.A.C. (Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference)	
Rule 62-210, F.A.C. (Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms)	
Rule 62-213, F.A.C. (Title V Air Operation Permits for Major Sources of Air Pollution)	
Rule 62-297, F.A.C. (Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures)	
Rule 62-212.400, F.A.C. (PSD)	001, 002, 006, 007

This facility also includes miscellaneous unregulated/insignificant emissions units and/or activities.

PROJECT DESCRIPTION

The purpose of this permitting project is to renew the Title V permit for the J.E.D. Solid Waste Management Facility.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Renewal received: **August 26, 2024**

Draft Title V Air Operation Permit Renewal issued: **October 11, 2024**

Public Notice published: **October 24, 2024**

Proposed Title V Air Operation Permit Renewal issued: **November 26, 2024**

Final Title V Air Operation Permit Renewal issued: **January 14, 2025**

PRIMARY REGULATORY REQUIREMENTS

Standard Industrial Classification (SIC) Code: 4953 - Refuse Systems.

North American Industry Classification System (NAICS): 562212 – Solid Waste Landfills.

HAP: The facility is identified as a major source of hazardous air pollutants (HAP).

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Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility is a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The facility operates units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

CAM: Compliance Assurance Monitoring (CAM) does not apply to any of the units at the facility.

GHG: The facility is not identified as a major source of greenhouse gas (GHG) pollutants.

PROJECT REVIEW

Revisions to the renewed permit reflect updated state and federal regulations and minor corrections and clarifications. Changes to the permit made as part of this renewal are shown in ~~strike through~~ format for deletions and in double underline format for additions in this document only. For ease of identification, all changes have also been highlighted in yellow here. The following changes were made to the permit as a part of this renewal:

1. This renewal permit is based on the Department's updated formats for a Title V air operation permit.
2. The title page and placard page were updated to reflect this Title V renewal application and the current Department logo and letterhead.
3. Table of Contents was updated to reflect the revised units and appendices titles, and correct page numbers.
4. Minor format changes (e.g., citations, spacing, hyperlinks) were made throughout the permit. In addition, grammatical errors, punctuation, and repetitive language were corrected where appropriate. These changes do not alter the intent or underlying language of any permit conditions.
5. "Administrator" has been changed to "Department" for federally enforceable conditions with enforcement delegated by the EPA to the Florida Department of Environmental Protection (i.e., Department).
6. To reflect current Title V air operation permit format standards, "owner or operator" has been replaced by "permittee" throughout the permit, where applicable.
7. Specific Conditions numbering was updated to reflect the addition and deletion of the conditions.

Section I. Facility Information:

8. Facility description in Subsection A was revised to clarify current operations at the J.E.D. Landfill as follows:

The J.E.D. Landfill is an active Class I Landfill located in Osceola County at 1501 Omni Way, St. Cloud, Florida. The landfill commenced construction in April 2003 and began receiving solid waste in January 2004. The landfill is Waste Connections of Osceola County, LLC (Waste Connections) owns and operates the J.E.D. Solid Waste Management Facility ("J.E.D. Landfill"), which is an active Class I landfill designed to include approximately 360 acres of lined disposal area, comprised of 23 cells with a design capacity 81.5 million tons. The landfill commenced construction in April 2003 and began receiving solid waste in January 2004. The yearly waste acceptance at the Class I landfill has averaged approximately 1,500,000 tons/yr (1,360,800 megagram (Mg)/year). The facility also accepts asbestos-containing waste. Currently, the landfill contains four closed and ~~nine-ten~~ active disposal cells, and is subject to 40 CFR 60, Subpart XXX, and 40 CFR 63, Subpart AAAA.

The landfill is subject to 40 CFR 60 (NSPS) Subpart XXX, Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014, and 40 CFR 63 Subpart AAAA - National Emission Standards for Hazardous Air Pollutants (NESHAP): Municipal Solid Waste Landfills. Since the estimates of non-methane organic compounds (NMOC)

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emissions are greater than 34 megagrams per year, these federal regulations require the operation of a landfill gas (LFG) collection and control system (GCCS). The landfill has an active landfill gas collection and control system (GCCS) that has been installed in phases to collect generated landfill gas. Gas is conveyed to two (2) utility flares or six (6) Landfill Gas-to-Energy (LFGTE) engines for emissions control.

The facility also operates a hybrid leachate evaporator system, used to support in the management of collected leachate from the landfill, and In addition, the facility also has one 135-kilowatt stationary emergency generator which is fired by propane. The engine is subject to 40 CFR Part 63 Subpart ZZZZ.

9. Table in Subsection B (Summary of Emissions Unit) was revised to update EUs 002, 006 and 007 titles for clarity.
10. The language in Subsection C (Applicable Regulations) has been revised to clarify that the J.E.D. Landfill is a major source of HAP.

Section II. Facility-Wide Conditions:

11. Facility-Wide Condition **FW5**. (General Visible Emissions) was updated to match the language in Rule 62-296.320(4)(b)1, F.A.C., as follows:

FW5. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than 20% opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b), F.A.C.]

12. Facility-Wide Condition **FW6**. (Unconfined Particulate Matter) was updated as proposed by the applicant in the renewal application submitted on August 26, 2024.
13. Facility-Wide Condition **FW8**. (Annual Statement of Compliance) was revised as follows to specify that the annual statement of compliance can be submitted to the U.S. EPA via the Compliance and Emissions Data Reporting Interface (CEDRI):

FW8. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit and to the U.S. EPA at the address shown below within 60 days after the end of each calendar year during which the Title V air operation permit was effective (See also Appendix RR, Conditions RR1 and RR7). The annual statement of compliance can be submitted to the U.S. EPA via the Compliance and Emissions Data Reporting Interface (CEDRI) on EPA's Central Data Exchange (CDX) at <https://cdx.epa.gov/>. [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

14. Facility-Wide Condition **FW10**. (Semi-Annual Monitoring Reports) was revised as follows to clarify the reporting requirements for Title V sources:

Semi-Annual Monitoring Reports. The permittee shall monitor compliance with the terms and conditions of this permit and shall submit reports of any deviations from the requirements of these conditions at least every six (6) months at least every six months to the compliance office. Each semi-annual report shall cover the 6-month periods of January 1 – June 30 and July 1 – December 31. The reports shall be submitted by the 60th day following the end of each calendar half (i.e., March 1st and August 29th of every year). All instances of deviations from permit requirements (including conditions in the referenced Appendices) must be clearly identified in such reports, including reference to the specific requirement and the duration of such deviation. If there are no deviations during the reporting period, the report shall so indicate. Any semi-annual reporting requirements contained in applicable federal NSPS or NESHAP requirements may be submitted as part of this report. The submittal dates specified above shall replace the submittal dates specified in the federal rules. All additional reports submitted as part of this report should be clearly identified according to the specific federal requirement. All reports shall be accompanied by a certification by a responsible official, pursuant to subsection 62-213.420(4), F.A.C.

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~~(See also Conditions RR2, - RR4, of Appendix RR, Facility wide Reporting Requirements, for additional reporting requirements related to deviations.) [Rule 62-213.440(1)(b)3.a., F.A.C.; and, 40 CFR 60.19(d), 40 CFR 61.10(h) & 40 CFR 63.10(a)(5)]~~

~~(See also Conditions RR2, - RR4, of Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements related to deviations.)~~

{Permitting Note: EPA has clarified that, pursuant to 40 CFR 70.6(a)(3), the word “monitoring” is used in a broad sense and means monitoring (i.e., paying attention to) the compliance of the source with all emissions limitations, standards, and work practices specified in the permit.}

Section III. Emissions Units and Specific Conditions:

Subsection A. Emissions Unit 001 – MSW Class I Landfill with Gas Extraction - Cells 1-23.

15. To clarify current operations and applicable requirements, unit’s description section was revised as follows:

The existing JED Landfill is an active Class I Landfill with a municipal solid waste (MSW) design capacity greater than 2.5 million megagrams (Mg) by mass or 2.5 million cubic meters by volume. This landfill began receiving solid waste in January 2004. The landfill is designed to include approximately 360 acres of lined disposal area, comprised of 23 cells, with a design capacity 81.5 million tons.

Cells 1-10 of this landfill comprise the waste Phases I-III. Construction of cells 1-10 was authorized by Permit No. 0970079-001-AC at a capacity of 16.2 million tons. Expansion of the Class I Landfill into cells 11-23 was authorized by Permit No. 0970079-011-AC/PSD-FL-429 which allowed the capacity to increase. The footprint for cells 1-10 is approximately 123 acres and with the expansion into the additional cells 11-23, the total footprint of the Class I Landfill will be approximately 360 acres. The Class I landfill is permitted to receive asbestos ~~- containing waste and began receiving asbestos in 2007 and plans to continue receiving asbestos (waste material) as waste trends allow.~~ At full build-out, the height of the landfill will be about 330 feet (NGVD).

Non-methane organic compound (NMOC) emissions from the JED landfill have been calculated to be greater than ~~5034~~ Mg per year, therefore, a gas collection & control system (GCCS) is required. Collection and control of landfill gas emissions began in December 2008.

The facility operates one 3,600- standard cubic feet per minute (scfm) open flare (EU 002) used as the primary flare, which was installed in 2009. Permit No. 0970079-013-AC/PSD-FL-429A issued in March 2015, authorized installation of additional flares with a flaring capacity of 7,200-scfm ~~(EU 007)~~ and 12 Caterpillar G3520C landfill gas-fired engines ~~(EU 006)~~ in Phase 1. Due to availability of landfill gas, only six (6) of the twelve engines ~~(EU 006)~~ and one (1) flare totaling 4,800 scfm capacity ~~(EU 007)~~ have ~~currently~~ been constructed. ~~Additional engines may be constructed in the future as more gas becomes available. Additional open candlestick utility flares with a flaring capacity of 2,400 scfm will be installed in Phase 1, and additional flares with a total capacity of 7,200 scfm will be installed in in Phase 2 as necessary to accommodate the full build-out LFG collection capacity.~~

{Permitting Note: This emissions unit is regulated under NSPS Subpart XXX since this landfill facility has modified since July 17, 2014. Because Subpart XXX is more stringent than NSPS Subpart WWW, demonstrating compliance with Subpart XXX assures compliance with Subpart WWW. This landfill is also subject to the NESHAP requirements in 40 CFR 63, Subpart AAAAA. Facilities subject to Subpart AAAAA are directed to comply with Subpart WWW for many of Subpart AAAAA’s requirements. Demonstrating compliance with Subpart XXX assures compliance with Subpart WWW for the purposes of Subpart AAAAA. As an asbestos disposal site, the landfill is also subject to the asbestos NESHAP in 40 CFR 61, Subpart M 40 CFR 60, Subpart A - General Provisions, adopted and incorporated by reference in Rule 62-204.800(8)(d), F.A.C.; 40 CFR 60, Subpart XXX, Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014, adopted and incorporated by reference in Rule 62-204.800(8)(b)77, F.A.C.; 40 CFR 61, Subpart M

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~~National Emissions Standards for Asbestos, adopted and incorporated by reference in Rule 62-204.800(10)(b)8., F.A.C.; 40 CFR 63, Subpart A, adopted and incorporated by reference in Rule 62-204.800(11)(d)1., F.A.C.; and 40 CFR 63, Subpart AAAA, adopted and incorporated by reference in Rule 62-204.800(11)(b)59., F.A.C.}~~

16. J.E.D. Landfill is subject to NSPS 40 CFR 60, Subpart XXX requirements. The landfill is also subject to 40 CFR 63, Subpart AAAA requirements which were substantially modified on March 26, 2020. Pursuant to 40 CFR 63.1930(b), starting September 27, 2021, this landfill must meet the requirements of Subpart AAAA, including operational standards for collection and control systems, compliance and monitoring of operations requirements as seen in 40 CFR 63.1958, 63.1960 and 63.1961. Subsequently, most of the conditions in *Subsection III.A.* were updated to reflect this. Note, that pursuant to 40 CFR 63.1964(b), Startup, Shutdown and Malfunction (SSM) Plan no longer applies to this landfill; therefore, Specific Condition A.25. (Startup, Shutdown and Malfunction Plan) as seen in Permit No. 0970079-017-AV was removed as obsolete.

Subsection B. Emissions Units 002 and 007 – Open Candlestick Utility Flares.

17. Units' description section was revised to clarify the operations and federal applicable requirements as follows:

~~This emissions unit is comprised of~~ The landfill operates two open candlestick utility flares for total current flaring capacity of 8,400-scfm. ~~The flares are intended to operate as a failsafe backup system to control gaseous emissions during LFG engines (EU 006) inoperative periods.~~

~~The landfill operates~~The primary Flare #1 (EU 002) is a 3,600-scfm candle type open flare, (Model No. PCFT1454I12, manufactured by LFG Specialties), ~~which is used as the primary Flare #1 (EU 002).~~ Volumetric flow to the flare is measured using a thermal dispersion flow meter and flow is continuously recorded on a data recorder. The flare has an automatic propane pilot system and control panel that monitors the presence and temperature of pilot flame. ~~Is~~ The flare is 1 foot in diameter and the height of the flare is 58 feet above ground.

~~This revision incorporates the installation of one~~ Flare #2 (EU 007) is a 4,800-scfm capacity candle type open flare, (Model CFT1654I16 manufactured by LFG Specialties). Volumetric flow to the flare is measured using a thermal dispersion flow meter and flow is continuously recorded on a data recorder. The flare has an automatic propane pilot system and control panel that monitors the presence and temperature of pilot flame. The flare is 1.3 feet in diameter and the height of the flare is 54 feet above ground.

Prior to combustion in the new flares or the LFG engines (EU 006), collected landfill gas (LFG) is treated in a scrubbing system manufactured by MV Technologies, for the purpose of reducing the concentrations of hydrogen sulfide (H₂S). This equipment is referred to as the H₂S scrubbing system in this permit. Reducing H₂S content prior to combustion in either the flares or the LFG engines effectively reduce SO₂ emissions.

{Permitting Note: In accordance with Rule 62-212.400, PSD, F.A.C., ~~the above new~~ Flare #2 is subject to Best Available Control Technology (BACT) determinations for the following air pollutants: CO, NO_x, PM, PM₁₀, PM_{2.5}, VOC, NMOC and GHG. The final BACT determinations were included in Permit 0970079-011-AC/PSD-FL-429 and referenced in Appendix BD. Other emissions standards and performance restrictions specified in this permit allow the emission units to escape PSD preconstruction review for sulfur dioxide (SO₂) emissions.

~~Both flares are regulated pursuant to 40 CFR 60, Subpart A - General Provisions, adopted and incorporated by reference in Rule 62-204.800(8)(d), F.A.C.; 40 CFR 60, Subpart XXX, Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014, adopted and incorporated by reference in Rule 62-204.800(8)(b)77, F.A.C.; 40 CFR 63, Subpart A, adopted and incorporated by reference in Rule 62-204.800(11)(d)1., F.A.C.; and 40 CFR 63, Subpart AAAA, adopted and incorporated by reference in Rule 62-204.800(11)(b)59., F.A.C.}~~

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18. The following permitting note was added for Specific Condition B.3. to clarify that the H₂S Scrubbing System serves both Flares #1 and #2:

{Permitting Note: While not required for Flare #1 by PSD-FL-429, the H₂S Scrubbing System was constructed and installed to treat LFG fired in both Flares #1 and #2.}

19. Both flares are subject to NSPS Subparts A and XXX requirements, including the VE standard under 40 CFR 60.18(c)(1); therefore, Specific Condition **B.6.** (Visible Emissions) was revised as follows:

B.6. Visible Emissions (VE). The new flare (EU 007) Flares #1 and #2 shall be operated with no visible emissions (VE) as determined by the methods specified in 40 CFR 60.18(f) (Specific Condition B.13.), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [Rules 62-204.800(8)(d), *Federal Regulations Adopted by Reference*, and 62-212.400, *Prevention of Significant Deterioration - BACT Determination*, F.A.C.; and 40 CFR 60.18(c)(1); and Permit 0970079-013-AC/PSD-FL-429A.]

20. Both flares are subject to NSPS 40 CFR 60 Subparts A and XXX as well as NESHAP 40 CFR 63, Subpart AAAA requirements which were substantially modified on March 26, 2020. Therefore, several conditions in *Subsection III.B.* were updated to reflect this. In addition, the following conditions were added:

- Specific Condition **B.13.** (Flare Compliance Requirements) pursuant to 40 CFR 60.18(f);
- Specific Condition **B.20.** (Test Methods and Procedures for Methane Concentration) pursuant to 40 CFR 60.764(e);
- Specific Condition **B.23.** (Equipment Removal Report) pursuant to 40 CFR 60.767(f) and 40 CFR 63.1981(g);
- Specific Condition **B.25.** (Semi-Annual Reports) pursuant to 40 CFR 63.1981(h); and, 40 CFR 60.767(g); and,
- Specific Condition **B.26.** (Electronic Reporting) pursuant to 40 CFR 63.1981(l) and 40 CFR 60.767(i).

21. Specific Conditions **B.28.** (Flare #2 Monthly Records) and **B.30.** (Flare #2 – Total SO₂ Emissions Reporting in AOR) were incorporated as seen in Permit No. 0970079-013-AC/PSD-FL-429A.

Subsection C. Emissions Unit 006 – Landfill Gas-to-Energy (LFGTE) Plant – 6 LFG-fired Engines.

22. Units' description section was revised to clarify the operations and federal applicable requirements as follows:

This emissions unit is the Landfill Gas to Energy (LFGTE) Plant, which is comprised of six LFG fired engines. Permit No. 0970079-013-AC authorized installation of up to 12 LFG fired engines/Generator Sets. This renewal Application incorporates six (6) of the engines which have been installed. Expansion of the LFGTE Plant to the full capacity will be completed as increases in landfill gas flows allow

LFGTE Plant is located in an area south of the existing leachate holding ponds at the J.E.D. Facility. Landfill gas from the disposal area is conveyed to the LFGTE Facility via a vacuum piping system and is then treated and used as a fuel to generate electricity. At full build out, the LFGTE Facility will have a gross electrical generation capacity of approximately 19.2 megawatts (MW) of electricity and will consist of 12 Caterpillar lean burn internal combustion engines and generator sets. The LFGTE Facility will be constructed in phases with this, completed initial phase consisting of 6 engine/generator sets with a gross electrical output of approximately 9.6 MW.

The LFG-to-energy plant, EU-006, consists of six (6) identical Caterpillar G3520C internal combustion engines with individual generators each rated at 1.6 MW. Landfill gas is conveyed under vacuum by blowers stationed at the LFGTE Facility. The landfill gas is treated for moisture (moisture conditioned) at the blower skid system prior to being routed to the hydrogen sulfide (H₂S) treatment system. Landfill gas is consumed as fuel in the engine/generator sets to produce electricity which is sold to Orlando Utilities Commission.

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The LFG-fired engines are Caterpillar Model G3520C. The CAT® G3520C internal combustion engine is a lean-burn water-cooled engine with a design power generation rating of 2,242 brake-horsepower (bhp) and a maximum fuel consumption rating of 6,511 Btu/bhp-hr (lower heating value, LHV). The maximum heat input rating for each engine is 14.6 million British thermal units per hour (MMBtu/hr, LHV) (engine power at 100% load is 2,242 bhp and nominal engine fuel consumption is 6,511 Btu/bhp-hr, LHV). Each engine will be connected to an electric power generator with a nominal rating of 1.6 MW. Using a fuel consumption tolerance of +2.5% (Caterpillar data), the maximum heat input could be 14.96 MMBtu/hr, LHV, which is equivalent to 16.61 MMBtu/hr, HHV. Exhaust gases from each engine will be vented through a 60-foot (ft) high stack, 1.33 feet in diameter.

{Permitting Note: In accordance with Rule 62-212.400, PSD, F.A.C., the above engines are subject to Best Available Control Technology (BACT) determinations for the following air pollutants: CO, NO_x, PM, PM₁₀, PM_{2.5}, VOC, NMOC and GHG. The final BACT determinations were included in Permit 0970079-011-AC/PSD-FL-429 and referenced in Appendix BD. Other emissions standards and performance restrictions specified in this permit and as evaluated in Permit project 0970079-013-AC/PSD-FL-429A allow the emission units to escape PSD preconstruction review for sulfur dioxide (SO₂) emissions.

These spark ignition (SI) internal combustion engine (SI ICE) are regulated under 40 CFR Part 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines and 40 CFR 63 Subpart ZZZZ- National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, adopted by reference in Rule 62.204.800(8)(b), F.A.C. This permit section addresses “new” stationary non-emergency, SI RICE, firing landfill gas located at an area a major source of HAP, that have been modified, reconstructed, or commenced construction on or after June 12, 2006, and that have a post July 1, 2007 model year. }

23. Specific Conditions C.5. (Applicable NSPS Provisions) and C.6. (Applicable NESHAP Provisions) as seen in Permit 0970079-017-AV were removed. Applicable to these engines federal requirements are described in the permitting note in description section of the Subsection III.C.

24. Specific Condition **C.12.** (Visible Emissions) was incorporated as seen in Permit No. 0970079-013-AC/PSD-FL-429A.

25. Specific Condition **C.13.** (Sulfur Dioxide (SO₂) Emissions) was revised for clarity as follows:

C.13. Sulfur Dioxide (SO₂) Emissions. To ensure that PSD is avoided, SO₂ emissions from all 12 LFG-fired engines and the new open flares #2 (EU 007) combined (the “Project”) shall be 39 tons or less per consecutive 12-month period. Compliance with this SO₂ emissions cap shall be demonstrated on a 12-month rolling basis using the following information: the sulfur level in the scrubbed LFG; the amount of LFG combusted by all 12 LFG-fired engines and the new open flares #2 (EU 007) combined; and, the assumption that all sulfur is converted to SO₂. [Rules 62-4.160(2) and 62-212.400(12), *Source Obligation - escape-PSD*, F.A.C.; and Permit 0970079-013-AC/PSD-FL-429A]

26. Specific Condition **C.26.** (Initial Notification) as seen in Permit 0970079-017-AV was removed as obsolete.

Subsection D. Emissions Unit 008 – Hybrid Leachate Evaporator System.

27. Units’ description section was revised to incorporate the changes as authorized by Permit 0970079-018-AC as follows:

This EU is a hybrid leachate evaporator system, used to support in the management of collected leachate from the landfill, and consists of two evaporators and a VOC and ammonia stripper column. Evaporator Tank 1 is a 30,000 gpd landfill gas-fired leachate evaporation tank that uses heat from an enclosed landfill gas-fired combustor with a maximum heat input rating of 13.83 MMBtu/hr (HHV), equivalent to combusting 439 standard cubic feet per minute (scfm) of landfill gas with heating value of 525 Btu/scf (HHV). The enclosed combustor for Tank 1 can also use compressed natural gas (CNG) as an alternative

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fuel to landfill gas for Tank 1. Evaporator tank 2 is a 22,000 gpd engine exhaust gas driven leachate evaporation tank, that uses the hot exhaust gases from three of the landfill-gas fired CAT G3520C engines (EU 006).

{Permitting Note: This emission unit is regulated pursuant to 40 CFR 60 Subpart A – General Provisions, adopted and incorporated by reference in Rule 62-204.800(8)(c), F.A.C.; and 40 CFR 60, Subpart XXX – Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014, adopted and incorporated by reference in Rule 62-204.800(8)(b)78, F.A.C.}.

28. Specific Condition **D.1.** (Permitted Capacity) was revised as follows to incorporate the changes authorized in Permit No. 0970079-018-AC:

D.1. Permitted Capacity.

- a. *Evaporator Tank 1.* The maximum amount of leachate to be evaporated in this evaporator shall not exceed 30,000 gallons per day, averaged on a quarterly basis.
- b. *Enclosed Combustor for Evaporator Tank 1.* The maximum landfill gas flowrate to the leachate evaporator shall not exceed 439 scfm, averaged on an hourly basis; or the maximum CNG flowrate to the evaporator shall not exceed 226 scfm, averaged on an hourly basis.
- c. *Evaporation Tank 2.* The maximum amount of leachate to be evaporated in this evaporator shall not exceed 22,000 gallons per day, averaged on a quarterly basis.
[Rule 62-210.200(PTE), F.A.C.; and Permit No. 0970079-0148-AC, Specific Condition 3.A.2.]

29. Specific Condition **D.3.** (Enclosed Combustor for Evaporator Tank 1 Authorized Fuel) was revised as follows to incorporate the changes authorized in Permit No. 0970079-018-AC:

D.3. Enclosed Combustor for Evaporator Tank 1 Authorized Fuel: The only authorized fuels to be burned ~~is~~ are landfill gas or CNG. [Rule 62-210.200(PTE), F.A.C.; and Permit No. 0970079-0148-AC, Specific Condition 3.A.3.]

30. Specific Conditions D.12. (Initial Compliance Test for the Enclosed Combustor for Evaporator Tank 1) and D.13. (Initial Compliance Test for the PM_{2.5} from Evaporator Tanks 1 and 2) as seen in Permit 0970079-017-AV were removed as obsolete. The required initial tests for both tanks were completed on March 20-21, 2024.

31. The following permitting note was added to Specific Condition **D.11.** (Annual Compliance Tests) to clarify that the tests for NMOC emissions standard compliance are required only when using landfill gas as a fuel source:

{Permitting Note: The annual compliance tests are only required when using landfill gas as a fuel source in Evaporator Tank 1.}

32. Specific Condition **D.16.** (Fuel Records) was added as established in Permit No. 0970079-018-AC.

33. Specific Condition D.23. (Compliance Plan) and a corresponding permitting note as seen in Permit 0970079-017-AV were removed as obsolete. The required initial tests for both tanks were completed on March 20-21, 2024. The test report was submitted to the Compliance authority on May 31, 2024.

Subsection E. Emissions Unit 009 – Existing SI RICE.

34. Units' description section was revised to remove the repetitive language and clarify the applicable federal regulations as follows:

This emissions unit is comprised of one "existing", emergency stationary Spark Ignition (SI) RICE, Generac Model Number 5079620200 (Type SG135), propane fired emergency generator, rated at 135 kilowatts. ~~This emergency stationary SI RICE is subject to the requirements of the 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal~~

STATEMENT OF BASIS

~~Combustion Engines, adopted in Rule 62.204.800(8)(b), F.A.C. This emissions unit operates only as an emergency engine as defined in NESHAP Subpart ZZZZ and does not operate for purposes of emergency demand response or to regulate voltage or frequency deviation as specified in §63.6640(f)(2)(ii) and (iii). This emissions unit is considered to be regulated; it is not insignificant, exempt, or non regulated.~~

{Permitting Notes: This emergency-use (SI) RICE is regulated under 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) adopted in Rule 62.204.800(11)(b), F.A.C. This permit section addresses an “existing” stationary RICE less than or equal to 500 HP, located at an area a major source of HAP, that commenced construction before 6/12/2006, and that has not been modified or reconstructed after this date. Therefore, the engine is not subject to NSPS 40 CFR 60, Subparts ~~HHH or JJJJ~~. This emissions unit operates only as an emergency engine as defined in NESHAP Subpart ZZZZ and does not operate for purposes of emergency demand response or to regulate voltage or frequency deviation as specified in §63.6640(f)(2)(ii) and (iii).}

Section IV. Appendices:

- 35. Appendix NESHAP, Subpart AAAA, was updated to the current version.
- 36. Appendix RR, Facility-wide Reporting Requirements, was updated to the current version dated July 19, 2024.
- 37. Appendix TR, Facility-wide Testing Requirements, was updated to the current version dated July 19, 2024.
- 38. Table H, Permit History, was updated to include the facility’s recent permitting actions.
- 39. Tables 1 – 3 were removed. The permittee must comply with all applicable monitoring, recordkeeping and reporting requirements in the updated NSPS and NESHAP rules for MSW Landfills.

Changes Made to the Draft Permit During the Public Comment Period:

- 40. No Comments on the draft permit were received from the public during the 30-day public comment period; however, comments were received from the Permittee. The comments were not considered significant enough to reissue the draft Title V air operation permit and require another Public Notice. Therefore, some minor revisions were made to the draft Title V operation permit based on the Permittee’s comments. These changes are described in detail in the Proposed Permit Determination document issued with the proposed Title V renewal permit package.

CONCLUSION

This project renews Title V air operation permit No. 0970079-015-AV, which was effective on April 8, 2020. This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, and 62-213, F.A.C.