Title V Air Operation Permit Renewal
Permit No. 0890428-009-AV

## APPLICANT

The applicant for this project is Nassau County Board of County Commissioners. The applicant's responsible official and mailing address are: J. Scott Herring, Public Works Director, Nassau County Board of County Commissioners, West Nassau Class I Landfill, 96161 Nassau Place, Yulee, Florida 32097.

## FACILITY DESCRIPTION

The landfill is comprised of closed unlined cells and closed lined cells. The landfill stopped accepting waste for disposal on October 1, 2009 and entered long-term care on March 25, 2013. The final capacity of the lined portion of the landfill is approximately 3,920,000 cubic yards (2,997,100 cubic meters), and the unlined portion of the landfill is approximately 730,000 cubic yards (562,100 cubic meters). The total permitted landfill capacity (by solid waste program) is approximately 4.65 million cubic yards (3,555,000 cubic meters).

The landfill consists of an active gas collection system that uses a mechanical blower to create a vacuum that draws landfill gas through deposited refuse and into gas collection wells. The system currently consists of 50 landfill gas extraction wells and approximately 11,000 linear feet of header pipe (ranging from 14 inches (″) in diameter to 8″ in diameter). The facility also consists of 12 leachate collection system cleanout risers that can be used to extract landfill gas. The collected landfill gas is controlled by 2,000 standard cubic feet per minute (scfm) candlestick flare with a limited maximum landfill gas throughput from a 1,000 scfm blower. The landfill also includes five diesel fired emergency generators (EU 003 – EU 007). The landfill does not contain a bioreactor. This facility also includes miscellaneous unregulated/insignificant emissions units and/or activities.

This facility consists of the following emissions units (EU).

| EU No. | Brief Description |
|---|---|
| *Regulated Emissions Units* | |
| 001 | Municipal Solid Waste Landfill |
| 002 | Landfill Gas Flare (1,000 scfm blower) |
| 003 | East Side Emergency Diesel Generator (40.2 HP) |
| 004 | Up Front Emergency Diesel Generator (67.1 HP) |
| 005 | Flare Emergency Diesel Generator (167.6 HP) |
| 006 | Leachate Tanks Emergency Diesel Generator (174.3 HP) |
| 007 | West Side Emergency Diesel Generator (40.2 HP) |

## PROJECT DESCRIPTION

The purpose of this permitting project is to renew the existing Title V permit for the above referenced facility which reflects the standards and requirements to be established in the concurrently issued Air Construction Permit No. 0890428-010-AC. Further details are included in the Technical Evaluation and Preliminary Determination accompanying the draft air construction permit.

## PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Renewal received July 30, 2014, application complete.

## PRIMARY REGULATORY REQUIREMENTS

Standard Industrial Classification (SIC) Code: 4953 – Refuse System.

North American Industry Classification System (NAICS): 562212 – Garbage Disposal Landfills.

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HAP: The facility is not identified as a major source of hazardous air pollutants (HAP).

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 no longer 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. The following emission units at the facility are subject to NSPS requirements.

| Regulation | EU Nos. |
|---|---|
| 40 CFR 60, Subpart A, NSPS General Provisions | 001 - 006 |
| 40 CFR 60, Subpart WWW: NSPS Standards of Performance for MSW Landfills | 001 & 002 |
| 40 CFR 60, Subpart IIII: NSPS Standards of Performance for Stationary CI ICE | 003 - 006 |

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

| Regulation | EU Nos. |
|---|---|
| 40 CFR 63, Subpart A: NESHAP General Provisions | 001 & 007 |
| 40 CFR 63, Subpart AAAA: NESHAP MSW Landfills | 001 & 002 |
| 40 CFR 63, Subpart ZZZZ: NESHAP for Stationary RICE | 007 |

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

**PROJECT REVIEW**

The renewal permit includes the following changes.

1. **General Permit Format**
   The renewal permit is based on the Department's updated formats for a Title V air operation permit.

2. **Section I. Facility Information**
   a. Subsection A. Facility Description.
      (1) Added the dates the landfill stopped accepting waste and the final capacity of the landfill.
      (2) Revised the volumetric flow rate from 2,000 standard cubic feet per minute (scfm) to 1,000 scfm going to the open utility (candle type) flare per Air Construction Permit No. 0890428-010-AC.
      (3) Included the emergency generators and applicable regulations to the facility description.
   b. Subsection B. Summary of Emissions Units.
      Classified the emergency generators as regulated emissions units.
   c. Subsection C. Relevant Documents.
      Removed this subsection since the section is not in the updated formats for the Title V air operation permits and the information is contained in this statement of basis.
   d. Subsection C. Applicable Regulations.
      Included this subsection identifying applicable state and federal regulations.

3. **Section II. Facility-Wide Conditions.**
   a. Conditions were combined or updated to meet the new Title V format changes.
   b. NESHAP requirement for a Startup shutdown and malfunction (SSM) Plan was moved to Section II, Subsection A. Emission Unit 001.
   c. Excess Emissions was moved to Section II, Subsection A. Emission Unit 001 and applied as required by rule or regulation.

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**4. Section III. Emissions Units and Specific Conditions.**

The emission units in this subsection were separated into two subsections addressing the landfill separate from the flare and applying the applicable regulations to these emission units. For clarification purposes, some of these conditions were combined.

a. Subsection A. Emission Unit 001

*The following changes are based on the new numbering format of this Title V Renewal Permit.*

(1) Added a description of the landfill and permitting note identifying the applicable regulations.
(2) Added Condition A.1. (Design Capacity) of the closed landfill
(3) Added Condition A.2 (Hours of Operation) the hours of operation of the landfill.
(4) Added a permitting note to Condition A.5.b. (Well Head Operation – Pressure) since the landfill has been closed and is covered with a geomembrane cover, the Department authorized an alternate operating procedure allowing the oxygen ($O_2$) concentrations up to 21% in the leachate collection cleanout riser system (LCR00001 through LCR0012).
(5) Added Condition A.6 (Asbestos Disposal) for an inactive landfill.
(6) Added Condition A.12 (Alternative Off-Site Migration) for informational purposes.
(7) Added Condition A.20 (Alternative System Monitoring Requirements) for informational purposes.
(8) Added Condition A.24 (NMOC Annual Report) reporting requirements for when the estimated NMOC emissions rate reported in the annual reports is less than 50 Mg/year for 5 consecutive years.
(9) Added Condition A.30 (Excavating Asbestos Containing Material) for an inactive landfill.
(10) Added Condition A.32 (40 CFR Part 63, Subpart AAAA Records) reporting requirements.
(11) Added Condition A.33 (Recordkeeping Requirements) identifying NSPS Subpart A recordkeeping requirements.
(12) Added Condition A.34 (Collection and Control System Capping or Removal Requirements) and Condition A.35 (Landfill Closure) identifying the landfills closure requirements.

b. Subsection B. Emission Unit 002

(13) Added a description of the flare and permitting note identifying the applicable regulations.
(14) Air Construction Permit No. 0890428-010-AC revised Condition B.1 *(previous Condition A.4)* (Permitted Capacity) for the flare since the blower was replaced reducing the volumetric flow rate of the landfill gas from 2,000 scfm to 1,000 scfm going to the flare.
(15) Air Construction Permit No. 0890428-010-AC revised Condition B.2 *(previous Condition A.3)* (Authorized Fuels) for clarity.
(16) Air Construction Permit No. 0890428-010-AC revised Condition B.3 *(previous Condition A.5)* (Hours of Operation) for clarity.
(17) Added Condition B.4 (Operational Standards) for clarity.
(18) Added Condition B.7 (Air-Assisted Flares) for informational purposes.
(19) Added Condition B.8 (Circumvention) per Air Construction Permit No. 0890428-006-AC.
(20) Added Condition B.9.b (Visible Emissions) an opacity limit in accordance with Air Construction Permit 0890428-006-AC since it was not incorporated into the Title V air operation permit.
(21) Added Condition B.10 (Flare Monitoring) identifying that the flare are to be operated and maintained in conformance with their designs.
(22) Added Condition B.14 (Annual Compliance Tests Required) clarifying when and how the required annual visible emissions test is to be done.
(23) Added Condition B.15 (Test Methods and Procedures for Methane Concentration) identifying the performance test requirements.

c. Appendices

(24) Included the following alternate operating procedures and standards to the appendices: Appendix AO (Alternate Operating Parameter Values – Wells); Appendix AS (Alternate Standards for Low Gas Production Wells and Leachate Risers); and Appendix ASP (Leachate Collection Cleanout Risers – $O_2$ Intrusion).

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d. Permit No. 0890428-008-AV Subsections A through C. Emission Units 001 and 002.
*The following changes are based on the old numbering format in Permit No. 0890428-008-AV.*
(1) Removed the following obsolete Conditions since the landfill stopped accepting waste for disposal on October 1, 2009 and entered long-term care on March 25, 2013: A.18.4 and 6 (Compliance Determination for Gas Collection Systems); A.34 (Report Records); C.3 – C.14 (Active Waste Disposal Site Containing Asbestos); and, C.19 (Deed Notation).
(2) Removed Solid Waste Permit Conditions A.6, C.1 and C.2 identifying the landfill capacity of accepting a maximum of 1,400 tons of waste per day and hours of operation the landfill may accept waste in accordance with the solid waste permit. The landfill is closed and not receiving waste.
(3) Removed Condition A.23 (Visible Emissions – Flare) since this requirement is already addressed in the new Conditions B.8 (Vision Emissions) and B.13 (Annual Compliance Tests Required).
(4) Removed the following conditions since they are in duplicate form: A.26 (Collection System – Interior Wellhead Nitrogen Level Determination); and A.27 (Collection System – Interior Wellhead Oxygen Level Determination).
(5) Removed Condition A.29 (NMOC Tier II Test Method) since the test was conducted in 2004. A permitting note was added in Condition A.24 (NMOC Calculations) stating the results from the test.
(6) Revised Condition A.31 (Landfill Closure Report) to only include the portion that requires a notification if additional waste is placed into the landfill.
(7) Removed the following conditions since they are addressed and attached in the Appendices: Conditions A.44 through A.46 (Common Conditions); Condition B.1; Condition B.3; Subsection B. Definitions; Condition B.9 (General Provisions); and, Condition C.20 (Common Conditions).
(8) Moved Condition A.47 (Alternative standards for Low Gas Production Extraction Wells and Leachate Cleanout Riser Connections) to a permitting note and attached to the appendices.

## CONCLUSION

This project renews Title V air operation permit No. 0890428-008-AV, which was effective on April 8, 2010. This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210, and 62-213, F.A.C.

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