

Facility Name: **Old Dixie Municipal Solid Waste Landfill**
City: Dalton
County: Whitfield
AIRS #: 04-13-313-00131

Application #: TV-573459
Date Application Received: July 8, 2021
Permit No: 4953-313-0131-V-05-0

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Introduction

This narrative is being provided to assist the reader in understanding the content of referenced operating permit. Complex issues and unusual items are explained here in simpler terms and/or greater detail than is sometimes possible in the actual permit. The permit is being issued pursuant to: (1) Georgia Air Quality Act, O.C.G.A § 12-9-1, et seq. and (2) Georgia Rules for Air Quality Control, Chapter 391-3-1, and (3) Title V of the Clean Air Act. Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control incorporates requirements of Part 70 of Title 40 of the Code of Federal Regulations promulgated pursuant to the Federal Clean Air Act. The narrative is intended as an adjunct for the reviewer and to provide information only. It has no legal standing. Any revisions made to the permit in response to comments received during the public participation and EPA review process will be described in an addendum to this narrative.

I. Facility Description**A. Facility Identification****1. Facility Name:**

Old Dixie Municipal Solid Waste Landfill

2. Parent/Holding Company Name

Dalton-Whitfield Regional Solid Waste Management Authority

3. Previous and/or Other Name(s)

None

4. Facility Location

4189 Old Dixie Highway
Dalton, Georgia 30721

5. Attainment, Non-attainment Area Location, or Contributing Area

Old Dixie Municipal Solid Waste Landfill is located in Whitfield County which is classified as attainment or is unclassifiable for all pollutants.

B. Site Determination

Trinseo, LLC (AIRS No. 313-00054), a latex manufacturing facility, uses landfill gas (LFG) collected from a voluntary gas collection system. Old Dixie Landfill and Trinseo do not have common ownership or control. Trinseo also has sources of fuel other than LFG. These facilities, therefore, are separate facilities for Title V purposes.

There are no other site determination issues regarding this facility.

C. Existing Permits

Table 1 below lists all current Title V permits, all amendments, 502(b)(10) changes, and off-permit changes, issued to the facility, based on a comparative review of form A.6, Current Permits, of the Title V application and the "Permit" file(s) on the facility found in the Air Branch office.

Table 1: List of Current Permits, Amendments, and Off-Permit Changes

Permit Number and/or Off-Permit Change	Date of Issuance/Effectiveness	Purpose of Issuance
4953-313-0131-V-04-0	January 26, 2017	Title V renewal

D. Process Description

1. SIC Codes(s)

4953 – Refuse Systems

The SIC Code(s) identified above were assigned by EPD's Air Protection Branch for purposes pursuant to the Georgia Air Quality Act and related administrative purposes only and are not intended to be used for any other purpose. Assignment of SIC Codes by EPD's Air Protection Branch for these purposes does not prohibit the facility from using these or different SIC Codes for other regulatory and non-regulatory purposes.

Should the reference(s) to SIC Code(s) in any narratives or narrative addendum previously issued for the Title V permit for this facility conflict with the revised language herein, the language herein shall control; provided, however, language in previously issued narratives that does not expressly reference SIC Code(s) shall not be affected.

2. Description of Product(s)

The facility does not have a final product. It processes municipal solid waste and disposes of it in a landfill.

3. Overall Facility Process Description

Old Dixie Municipal Solid Waste Landfill receives, manages, and disposes of solid waste, including, but not limited to, municipal solid waste, commercial waste, and industrial waste.

The waste deposited in the landfill decomposes over time and produces gases termed “landfill gas” (LFG). The LFG is composed primarily of methane and carbon dioxide with small amounts of Nonmethane Organic Compounds (NMOC). Because the NMOC generated by the landfill is currently less than 34 megagrams per year, the landfill is not required to have a gas collection and control system (GCCS). In 2008, Old Dixie Landfill voluntarily installed a GCCS with a backup flare as part of a waste to energy project. Gas is sent to Trinseo, LLC (AIRS No. 313-00054). When the NMOC generated by the landfill exceeds 34 Mg/yr, calculated in accordance with federal rules, the GCCS and flare will become subject to design, testing, and monitoring requirements in 40 CFR 62 Subpart OOO.

4. Overall Process Flow Diagram

The facility provided a process flow diagram in their Title V permit application.

E. Regulatory Status

1. PSD/NSR

Old Dixie Landfill is a minor source with respect to PSD/NSR regulations. Emissions of each PSD regulated pollutant is less than the major source threshold of 250 tons per year. Landfills are not included in the list of 28 source categories that have a 100 tpy threshold to be subject to PSD regulations.

2. Title V Major Source Status by Pollutant

Table 2: Title V Major Source Status

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	Yes			✓
PM ₁₀	Yes			✓
PM _{2.5}	Yes			✓
SO ₂	Yes			✓
VOC	Yes			✓
NO _x	Yes			✓
CO	Yes			✓
TRS	N/A			
H ₂ S	N/A			
Individual HAP	Yes			✓
Total HAPs	Yes			✓

3. MACT Standards

40 CFR Part 63 Subpart AAAAA – National Emission Standards for Municipal Solid Waste Landfills

The Landfill MACT, 40 CFR Part 63 Subpart AAAAA, is applicable to each area source MSW landfill with a design capacity greater than or equal to 2.5 million megagrams (Mg) and 2.5 million cubic meters (m³) and having estimated uncontrolled NMOC emissions exceeding 50 megagrams per year (Mg/yr) or if the landfill is a bioreactor. The MACT standard is not applicable to this landfill site at present because the NMOC emissions are less than the 50 Mg/yr threshold and the landfill is not a bioreactor. Because the landfill's design capacity is greater than 2.5 million Mg and 2.5 million m³, the MACT is potentially applicable in the future if the uncontrolled NMOC emissions ever exceed 50 Mg/yr. The landfill, however, is not currently subject to this MACT.

Note that the U.S. EPA promulgated changes to Subpart AAAA on March 26, 2020, that makes significant changes to the subpart. These changes changed citations and references for bioreactor requirements.

40 CFR Part 61 Subpart M – NESHAP for Asbestos

Old Dixie Landfill indicated that they are permitted to accept asbestos-containing waste. If the facility ever accepts asbestos waste for disposal, the facility will be subject to the asbestos NESHAP in 40 CFR 61 Subpart M.

4. Program Applicability (AIRS Program Codes)

Program Code	Applicable (y/n)
Program Code 6 - PSD	No
Program Code 8 – Part 61 NESHAP	Yes
Program Code 9 - NSPS	No
Program Code M – Part 63 NESHAP	No
Program Code V – Title V	Yes

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

None applicable.

B. Applicable Rules and Regulations

On August 29, 2016, EPA promulgated 40 CFR 60 Subparts XXX and Cf to regulate emissions from “new” landfills (constructed or modified after July 17, 2014) and establish emission guidelines for “old” landfills. These subparts replaced the requirements of 40 CFR 60 Subpart WWW. On May 21, 2021, EPA promulgated 40 CFR 62 Subpart OOO to provide a federal plan to cover “old” landfills in states where a state plan implementing the requirements of Subpart Cf has not been approved by EPA. The requirements of Subparts XXX, Cf, and OOO are similar to the requirements of Subpart WWW which formerly applied.

40 CFR 62 Subpart OOO – Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 2014.

This Federal Operation Plan OOO is applicable to each municipal solid waste landfill that has a design capacity greater than 2.5 million megagrams (Mg) or 2.5 million cubic meters (m³). Old Dixie Landfill has a design capacity exceeding 2.5 million cubic meters. The landfill is subject

to Federal Plan OOO because it commenced construction before July 17, 2014, has not been modified or reconstructed since July 2014, has accepted waste since November 8, 1987, and is not subject to an EPA-approved state plan. Once Georgia Rule (ggg) is an EPA-approved state plan, the landfill will no longer be subject to this Federal Operation Plan.

This Plan duplicates most of the requirements of 40 CFR 60 Subparts WWW and XXX.

40 CFR 61 Subpart M – NESHAP for Asbestos

Old Dixie Landfill is allowed to accept asbestos-containing waste and is, therefore, subject to the asbestos NESHAP in 40 CFR 61 Subpart M. As long as this MSW Landfill remains active, it is required to comply with the provisions of 40 CFR 61.154 – “Standard for Active Waste Disposal Sites”, including all reporting and record keeping requirements. Upon closure, the facility will be required to comply with 40 CFR 61.151 – “Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations”.

40 CFR 63 Subpart AAAA – National Emission Standards for Municipal Solid Waste Landfills

As stated earlier, Old Dixie Landfill is not currently subject to 40 CFR 63 Subpart AAAA.

391-3-1-.02(2)(ggg) – Existing Municipal Solid Waste Landfills

The provisions of Georgia Rule (ggg) apply to each existing municipal solid waste landfill that commenced construction, reconstruction, or modification on or before July 17, 2014 and has either accepted waste at any time since November 8, 1987 or has additional design capacity available for future waste deposition.

The provision of Rule (ggg) apply AFTER the approval of Georgia’s state plan implementing the revised Emissions Guidelines for existing MSW Landfills (40 CFR Part 60 Subpart Cf). Currently, Rule (ggg) is not an EPA approved state plan and does not apply to the landfill. Rule (ggg), however, often cites 40 CFR 60 Subpart Cf and both are comparable to the Federal Operating Plan OOO. Rule (ggg) and Federal Operating Plan OOO are incorporated into the Permit. Therefore, when Rule (ggg) becomes an approved plan, the Permit will not require amending.

C. Compliance Status

No noncompliance issues have been identified by the facility.

D. Permit Conditions

Permit Conditions 2.2.1 through 2.2.3 of the existing permit have been carried over from the existing permit. The language of these conditions has been updated to the most recent version of these conditions used by the Division.

Condition 2.2.1 establishes the applicability of 40 CFR 62 Subparts A and OOO to the landfill. This condition previously established applicability to 40 CFR 60 Subpart WWW.

Condition 2.2.2 establishes the applicability of 40 CFR 61 Subparts A and M to the landfill.

Condition 2.2.3 establishes the potential applicability of 40 CFR 63 Subparts A and AAAA to the landfill.

Condition 2.3.1 established the applicability of 391-3-1-.02(2)(ggg) when Georgia becomes an EPA-approved and currently effective state plan implementing 40 CFR 60 Subpart Cf.

III. Regulated Equipment Requirements

A. Equipment List for the Process

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
EU01	Landfill with voluntary Gas Collection and Control System	40 CFR 62, Subpart A 40 CFR 62, Subpart OOO 40 CFR 61, Subpart A 40 CFR 61, Subpart M 40 CFR 63, Subpart A* 40 CFR 63, Subpart AAAA* 391-3-1-.02(2)(ggg) 391-3-1-.02(2)(n)	CD01	Third-party LFG user and voluntary backup flare

* 40 CFR Part 63 requirements are not currently applicable, but could become applicable during the permit term if the facility is required to install a GCCS or becomes a bioreactor.

B. Equipment & Rule Applicability

Emission and Operating Caps:

None applicable.

Rules and Regulations Assessment:

40 CFR 62 Subpart OOO – Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 2014.

As stated earlier, 40 CFR 62 Subpart OOO applies until Georgia becomes an EPA-approved state plan implementing 40 CFR 60 Subpart Cf.

40 CFR 61 Subpart M – NESHAP for Asbestos

As stated earlier, 40 CFR 61 Subpart M applies to the landfill.

40 CFR 63 Subpart AAAA – National Emission Standards for Municipal Solid Waste Landfills

As stated earlier, 40 CFR 63 Subpart AAAA does not currently apply to the landfill but could potentially apply in the future.

391-3-1-.02(2)(ggg) – Existing Municipal Solid Waste Landfills

As stated earlier, Rule 391-3-1-.02(2)(ggg) applies AFTER Georgia becomes an EPA-approved state plan implementing 40 CFR 60 Subpart Cf.

Georgia Rule 391-3-1-.02(2)(n) – Fugitive Emissions

Georgia Rule (n) requires the facility to minimize fugitive dust from the landfill. This includes using water or chemicals for controlling dust on construction operations, grading of roads, and the clearing of land; covering at all times, when in motion, open bodied trucks transporting material likely to give rise to airborne dust; application of suitable material on dirt roads, materials, stockpiles, and other similar surfaces. Also per this rule, a landfill may not discharge fugitive dust, which exhibits opacity equal to or greater than 20 percent.

C. Permit Conditions

Condition 3.3.1 (updated from Condition 3.3.1 in Permit 4953-313-0131-V-04-0) contains the bioreactor requirements from 40 CFR 63 Subpart AAAA if liquid (other than leachate) is added to the landfill in a controlled fashion. Note that changes to Subpart AAAA were promulgated on March 26, 2020. This condition has been updated to reflect the new citations in Subpart AAAA.

Conditions 3.4.1 and 3.4.2 (Conditions 3.4.1 and 3.4.2 in Permit 4953-313-0131-V-04-0) limit fugitive dust and its opacity, in accordance with Rule (n).

IV. Testing Requirements (with Associated Record Keeping and Reporting)

A. General Testing Requirements

The permit includes a requirement that the Permittee conduct performance testing on any specified emission unit when directed by the Division. Additionally, a written notification of any performance test(s) is required 30 days (or sixty (60) days for tests required by 40 CFR Part 63) prior to the date of the test(s) and a test plan is required to be submitted with the test notification. Test methods and procedures for determining compliance with applicable emission limitations are listed and test results are required to be submitted to the Division within 60 days of completion of the testing.

B. Specific Testing Requirements

Subpart OOO specifies in 40 CFR 62.16718 the procedures for an uncontrolled landfill to determine annual NMOC emissions. These procedures require a calculation based on the landfill's recorded waste acceptance rates, NMOC concentration, and methane generation rate constant in a three-tiered approach using equations specified in Subpart OOO.

The landfill currently uses Tier 2 to determine NMOC emissions. If NMOC emissions exceed 34 Mg/yr, the landfill may choose to use Tier 3 which is to determine the site-specific methane generation rate constant.

If the Tier 2 NMOC emission rate is between 34 and 50 Mg/yr, the landfill has the option to use Tier 4 and show that surface methane concentrations are less than 500 ppm above background

The conditions in Permit 4953-313-0131-V-04-0 have been updated to reflect that the landfill is now subject to 40 CFR 62 Subpart OOO instead of 40 CFR 60 Subpart WWW.

The requirements of the NMOC emission calculation are included as Conditions 4.2.1 through 4.2.5. The Tier 4 surface methane measurement is included in Conditions 4.2.6 and 4.2.7.

Condition 4.2.1 states that the facility must determine the NMOC emission rate using the equations in Condition 4.2.2 and constants in Condition 4.2.3. These conditions are updated from Conditions 4.2.1 through 4.2.3 in Permit 4953-313-0131-V-04-0.

Condition 4.2.4 (updated from Condition 4.2.4 in Permit 4953-313-0131-V-04-0) states the sampling procedures to be followed for collecting samples to determine NMOC concentration when using Tier 2 or Tier 3 values for calculating NMOC emissions.

Condition 4.2.5 (updated from Condition 4.2.5 in Permit 4953-313-0131-V-04-0) establishes when the next Tier 2 sampling test is required.

Condition 4.2.6 contains the detailed procedures for conducting the surface methane measurements. Condition 4.2.7 contains the requirements for the measurement device. Conditions 4.2.6 and 4.2.7 are new to this permit.

V. Monitoring Requirements

A. General Monitoring Requirements

Condition 5.1.1 requires that all continuous monitoring systems required by the Division be operated continuously except during monitoring system breakdowns and repairs. Monitoring system response during quality assurance activities is required to be measured and recorded. Maintenance or repair is required to be conducted in an expeditious manner.

B. Specific Monitoring Requirements

This landfill is uncontrolled and is subject to Subpart OOO. Subpart OOO and this permit do not contain any specific monitoring requirements for an uncontrolled landfill.

C. Compliance Assurance Monitoring (CAM)

Not Applicable

VI. Record Keeping and Reporting Requirements

A. General Record Keeping and Reporting Requirements

The Permit contains general requirements for the maintenance of all records for a period of five years following the date of entry and requires the prompt reporting of all information related to deviations from the applicable requirements. Records, including identification of any excess emissions, exceedances, or excursions from the applicable monitoring triggers, the cause of such occurrence, and the corrective action taken, are required to be kept by the Permittee and reporting is required on a semiannual basis.

B. Specific Record Keeping and Reporting Requirements

The federal plan, 40 CFR 62 Subpart OOO, requires uncontrolled landfills to determine their NMOC emission rate annually. If the NMOC emissions exceed 34 megagrams per year, the landfill must either calculate emissions at a higher tier (e.g., move from Tier 2 to Tier 3) or submit a Collection and Control System (GCCS) Design Plan that has been prepared by a Professional Engineer. If the NMOC emissions are between 34 and 50 megagrams per year, the landfill may use Tier 4 and show that the surface methane concentrations are less than 500 ppm above background. The landfill is no longer required to calculate annual NMOC emissions once a landfill gas collection system meeting the requirements of Subpart OOO is being used. Subpart OOO also requires the landfill to keep accessible records of design capacity and waste in place and may exclude areas containing nondegradable waste from the GCCS if sufficient records are kept. Subpart OOO also requires that a report be made if any liquid, including leachate, has been added to the landfill surface in a controlled manner.

Landfills that accept asbestos-containing waste are subject to 40 CFR 61 Subpart M. These landfills are required to comply with 40 CFR 61.154 and, upon closure, submit records of asbestos disposal locations and quantities.

The Landfill MACT, 40 CFR 63 Subpart AAAA is triggered if the landfill becomes a bioreactor (as defined in Subpart AAAA). The landfill becomes a bioreactor if any liquid other than leachate is added in a controlled fashion to the waste unless the moisture in the waste remains less than 40 percent.

The conditions in Permit 4953-313-0131-V-04-0 have been updated to reflect that the landfill is now subject to 40 CFR 62 Subpart OOO instead of 40 CFR 60 Subpart WWW.

Conditions 6.2.1 through 6.2.3 (updated from Conditions 6.2.1 through 6.2.3 in Permit 4953-313-0131-V-04-0) include the requirements for submitting annual NMOC emission rate reports and the procedures to be taken when a NMOC emission rate report exceeds 34 megagrams per year (i.e., calculate emissions by a higher tier or submit a GCCS design plan).

Condition 6.2.4 (updated from Condition 6.2.4 in Permit 4953-313-0131-V-04-0) states that a NMOC emission report is not required after a GCCS, which meets the requirements of Subpart OOO, has been installed.

Condition 6.2.5 (updated from Condition 6.2.5 in Permit 4953-313-0131-V-04-0) requires that the facility keep records of the maximum design capacity of the landfill, the current amount of solid waste in place, and the year-by-year waste acceptance rate.

Conditions 6.2.6 and 6.2.7 (updated from Conditions 6.2.6 and 6.2.7) in Permit 4953-313-0131-V-04-0) contain requirements from 40 CFR 61 Subpart M which are applicable if the landfill accepts asbestos-containing waste.

Conditions 6.2.8 and 6.2.9 (updated from Conditions 6.2.8 and 6.2.9) in Permit 4953-313-0131-V-04-0) contains requirements for excluding areas of the landfill from the GCCS design, when it is required, which contain nondegradable waste or are nonproductive.

Condition 6.2.10 (updated from Condition 6.2.10 in Permit 4953-313-0131-V-04-0) requires implementing their dust suppression plan to ensure that the landfill complies with Georgia Rule (n).

Conditions 6.2.11 through 6.2.13 (updated from Conditions 6.2.11 through 6.2.13 in Permit 4953-313-0131-V-04-0) contain requirements, which are applicable if the landfill adds any liquid (other than leachate) to the landfill. The landfill may become subject to the bioreactor requirements in 40 CFR 63 Subpart AAAA if liquids (other than leachate) are added.

Condition 6.2.14 (updated from Condition 6.2.14 in Permit 4953-313-0131-V-04-0) requires a report when the landfill stops accepting waste in order to close the landfill.

Condition 6.2.15 requires a liquid additions report if any liquid (including leachate) has been added to the landfill surface in the last ten years. Condition 6.2.16 requires certain records be kept if a report is required by Condition 6.2.15. These conditions are new to this permit.

Conditions 6.2.17 and 6.2.18 contain reporting requirements pertaining to Tier 4 surface methane measurements. Condition 6.2.19 contains record keeping requirements pertaining to Tier 4 surface methane measurements. These conditions are new to this permit.

Condition 6.2.20 contains requirements for electronic reports made to the U.S. EPA. This condition is new to this permit.

Condition 6.2.21 (Condition 6.2.21 in Permit 4953-313-0131-V-04-0) requires a report any time there is an increase in the design capacity of the landfill.

VII. Specific Requirements

A. Operational Flexibility

Not applicable.

B. Alternative Requirements

Not applicable.

C. Insignificant Activities

See Permit Application on GEOS website.
See Attachment B of the permit

D. Temporary Sources

Not applicable.

E. Short-Term Activities

When the following activities occur, the Permittee is required to maintain records relating to these activities:

- a) Construction of Landfill Cell
- b) Capping (Closure) of Landfill Cell

F. Compliance Schedule/Progress Reports

Not applicable.

G. Emissions Trading

Not applicable.

H. Acid Rain Requirements

Not applicable.

I. Stratospheric Ozone Protection Requirements

The standard permit condition pursuant to 40 CFR 82 Subpart F has been included in the Title V Permit. These Title VI requirements apply to all air conditioning and refrigeration units containing ozone-depleting substances regardless of the size of the unit or of the source. The Permittee has indicated that the landfill has air conditioners or refrigeration equipment that uses CFCs, HFCs, or other ozone-depleting substances.

J. Pollution Prevention

Not applicable.

K. Specific Conditions

Not applicable.

VIII. General Provisions

Generic provisions have been included in this permit to address the requirements in 40 CFR Part 70 that apply to all Title V sources, and the requirements in Chapter 391-3-1 of the Georgia Rules for Air Quality Control that apply to all stationary sources of air pollution.

Template Condition 8.14.1 was updated in September 2011 to change the default submittal deadline for Annual Compliance Certifications to February 28.

Template Condition Section 8.27 was updated in August 2014 to include more detailed, clear requirements for emergency generator engines currently exempt from SIP permitting and considered insignificant sources in the Title V permit.

Template Condition Section 8.28 was updated in August 2014 to more clearly define the applicability of the Boiler MACT or GACT for major or minor sources of HAP.

Addendum to Narrative

The 30-day public review started on month day, year and ended on month day, year. Comments were/were not received by the Division.

//If comments were received, state the commenter, the date the comments were received in the above paragraph. All explanations of any changes should be addressed below.//