**INFORMATION RELATIVE TO**

**THE DRAFT TITLE V OPERATING PERMIT**

**June 15, 2022**

GENERAL FACILITY INFORMATION

**Facility Name:** Northeast Mississippi Solid Waste Management Authority, NE Mississippi Regional Landfill

**Facility Address:** 2941 County Road 302, Walnut, MS 38683

**County:** Tippah

**SIC Code(s):** 4953 – Refuse Systems

**NAICS Code(s):** 562212 – Solid Waste Landfill

APPLICATION SUMMARY

|  |  |
| --- | --- |
| **Permit No.:** 2620-00055  **Permit Action:** Renewal  **Permit Folder:** PER20190001  **Application Receipt Date:** August 29, 2019; Revised on October 9, 2019  **Application Deemed Complete:** November 1, 2019  **CBI Submitted?:** No | **NSPS (Part 60):** Subpart XXX (Upon commencing construction of lateral expansion)  **NESHAP (Part 61):** Subpart M  **Federal Plan (Part 62):** Subpart OOO  **NESHAP (Part 63):** Subpart AAAA  **112(r) / RMP:** N/A  **Other:** N/A |

FACILITY DESCRIPTION

Northeast Mississippi Regional Landfill (NEML) is an existing municipal solid waste landfill facility (MSWLF) located in Walnut, Mississippi. NEML is owned by the Northeast Mississippi Solid Waste Management Authority. The facility accepts municipal, commercial, and non-hazardous industrial waste for disposal. Typical municipal solid waste acceptable for the facility includes household wastes, construction debris, sludge, and agricultural wastes. The facility currently has disposal airspace of 11,240,000 cubic yards (8.59 million cubic meters), which equates to approximately 8.8 million tons (7.9 million megagrams).

Activities conducted at the facility include disposal, by landfilling, of municipal and some industrial solid wastes (such as non-hazardous petroleum hydrocarbon contaminated soil). This includes "solidification" operations in which finely divided particulate materials (such as flyash, sawdust, etc.) are added to and mixed with liquid-containing wastes to solidify them prior to deposition within the landfill. Routine maintenance activities are conducted to service site equipment. Leachate from the landfill is sent to the City of Corinth POTW for treatment and discharge. Mobile engines are used on-site and are fueled from on-site diesel storage tanks.

The purpose of this permit action is to renew the facility’s Title V Operating Permit (TVOP), Air Reference No. 2620-00055. The renewal will address a proposed lateral expansion of the landfill, which is discussed in more detail below. The facility operates a gas collection and control system (GCCS), initially installed to comply with 40 CFR 60 Subpart WWW and 40 CFR 63 Subpart AAAA. The collected gas is routed to a LFG-to-Energy (LFGTE) project owned and operated by an independent third-party, Air Liquide Advanced Technologies U.S., LLC (ALATUS). ALATUS treats the LFG and injects the treated LFG into a gas pipeline. If there are interruptions in service from ALATUS, landfill gas may be routed to an existing candlestick flare owned and operated by NEML.

An initial source determination was made by DEQ in a letter dated November 7, 2016, to ALATUS, confirming that ALATUS was a separate source for purposes of air permitting. Following this source determination, the EPA issued additional guidance concerning common control. DEQ reviewed this guidance and has determined that NEML and ALATUS remain separate stationary sources for purposes of air permitting, particularly since NEML does not rely on ALATUS to demonstrate compliance with any applicable state or federal standards and has no authority to make decisions affecting the applicability of or compliance with relevant regulatory requirements concerning air pollution at ALATUS’s facility.

TITLE V SOURCE APPLICABILITY

The facility was initially required to obtain a Title V permit under 40 CFR 60 Subpart WWW. Although Subpart WWW no longer applies, NEML is now subject to the Federal Plan for Municipal Solid Waste Landfills found in 40 CFR 62 Subpart OOO, which still requires NEML maintain a Title V permit. The facility also meets the definition of a major stationary source of air pollutants, as the potential to emit carbon monoxide (CO) is greater than the 100 ton per year (tpy) major source threshold. (Note that the majority of PM, PM10, and PM2.5 emissions are from roadways, which are considered a fugitive source of emissions.) The facility does not have the potential to emit greater than or equal to 10 tpy of any single hazardous air pollutant (HAP) or 25 tpy of total HAPs. Therefore, the facility is considered an area source of HAP emissions.

**Facility-Wide Potential-to-Emit Summary1**

| Pollutant | PTE Emissions2 - Current  (tons/yr) | PTE Emissions2,3 – After Expansion  (tons/yr) |
| --- | --- | --- |
| Particulate Matter (TSP) | 403.58 | 403.58 |
| PM10 | 112.47 | 112.47 |
| PM2.5 | 16.49 | 16.49 |
| Sulfur Dioxide (SO2) | 3.79 | 3.79 |
| Nitrogen Oxides (NOx) | 22.75 | 22.75 |
| Carbon Monoxide (CO) | 103.15 | 103.15 |
| Volatile Organic Compounds (VOC) | 9.85 | 17.56 |
| Total Reduced Sulfur (TRS) | 1.14 | 2.10 |
| Total HAP | 8.32 | 13.29 |

1 The PTE emissions reflect any emission limits or enforceable restrictions included in the proposed permit.

2 PTE emission include fugitive emissions, which are not included when evaluating Title V or PSD major source applicability.

3 PTE after the expansion assumes the existing flare will be sufficient to control LFG; therefore, there is no increase in flare combustion emissions. This may be revisited at a future time as landfill design is further developed.

PREVENTION OF SIGNIFICANT DETERIORATION (PSD) APPLICABILITY

MSWLFs are not one of the 28 categorical facilities listed in 40 CFR 52.21(b)(1)(i)(a); therefore, the PSD threshold for a major source is 250 tons per year of any regulated NSR pollutant, with fugitive emissions not included towards this total. Since 398.01 of the 403.58 tpy of PM emissions are fugitive emissions, the PSD major source threshold is not exceeded. NEML has the potential to emit less than 250 tons per year of each of the other regulated NSR pollutants; therefore, NEML is an existing minor source under the PSD program.

With this renewal, NEML is addressing a future lateral expansion of the MSWLF, as proposed in a modification to Solid Waste Management Permit No. SW0700010433. The change in emissions was evaluated to determine if the expansion would constitute a major modification. However, the emissions increase is less than ¾ of the major modification thresholds for each regulated NSR pollutant; therefore, the expansion constitutes a de minimis NSR modification. De minimis NSR modifications are excluded from the State’s requirement to obtain a Permit to Construct per 11 Miss. Admin. Code Pt. 2, R. 2.13.F. NEML will also remain a minor source under the PSD program after the expansion, as shown in the Facility-Wide Potential-to-Emit Summary table above.

FACILITY MODIFICATIONS AND/OR PERMIT CHANGES

As noted above, a lateral expansion of the landfill is being addressed with this renewal. The proposed expansion would allow an increase to the permitted landfill capacity from 11,240,000 cubic yards to 26,710,000 cubic yards (or ~8.8 million tons to ~20.57 million tons). The proposed expansion has been evaluated to determine the increase in potential emissions. The landfill will continue to be required to collect and control the landfill gas; therefore, emissions of VOC and HAP will increase some but will remain below the de minimis threshold for a Permit to Construct.

In the permit, the requirements of 40 CFR 60 Subpart WWW have been replaced by the Federal Plan promulgated by EPA on May 10, 2021 and found in 40 CFR 62 Subpart OOO. The Federal Plan addresses the Emissions Guidelines for MSWLFs in 40 CFR 60 Subpart Cf. The Federal Plan is enforced by EPA Region 4 and not DEQ. Should a State Plan be approved by EPA, the State Plan will replace the Federal Plan and be enforced by DEQ. During the previous permit term, NEML exceeded the 50 Mg/yr threshold for Non-methane Organic Compounds (NMOC), which required installation of a GCCS. Applicability to the GCCS requirements under 40 CFR 62 Subpart OOO and 40 CFR 63 Subpart AAAA and the related emission standards, monitoring, recordkeeping, and reporting requirements have been addressed in this permit. A requirement to submit a request for a minor modification to incorporate the requirements of 40 CFR 60 Subpart XXX within 90 days of commencing construction of the lateral expansion has also been included in Section 4 of the permit. The requirements of 40 CFR 60 Subpart XXX would replace those of the Federal Plan or State Plan and are essentially equivalent requirements.

COMPLIANCE ASSURANCE MONITORING (CAM) APPLICABILITY

40 CFR Part 64 specifies the requirements for CAM. The general applicability of this rule can be found in 40 CFR 64.2 and requires a Title V source to comply with the CAM requirements if all three of the following criteria are met for a pollutant-specific emission unit (PSEU):

1. The unit is subject to an emission limitation or standard for a regulated air pollutant other than exemptions under 40 CFR 64.2(b)(1);
2. The unit uses a control device to comply with the standard; and
3. The unit has pre-control emissions exceeding Title V major source threshold.

The only control device used at the landfill is the candlestick flare, which controls VOC, HAP, and H2S emissions. However, the landfill does not have potential pre-control device emissions over the Title V major source threshold for any of these pollutants. Therefore, the CAM provisions **are not** applicable. Also, there are currently no emission limits or standards on VOC and HAP emissions.

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) APPLICABILITY

***40 CFR 61 Subpart M – NESHAP: National Emission Standards for Asbestos***

The provisions of Subpart M are applicable to active waste disposal sites that receive asbestos-containing materials for disposal from sources covered under 40 CFR 61.149, 61.150, or 61.155. The facility has a Solid Waste Management Permit (SW0700010433) and an operating plan that permit the facility to accept such wastes; therefore, the facility **is** subject to the applicable requirements of Subpart M, which have been included in the proposed permit.

***40 CFR 63 Subpart AAAA – NESHAP for Municipal Solid Waste Landfills***

The provisions of Subpart AAAA are applicable to a municipal solid waste (MSW) landfill that has accepted waste since November 8, 1987, or has additional capacity for waste deposition and meets any one of the three criteria below:

1. The MSW landfill is a major source of HAP as defined in 40 CFR 63.2.
2. The MSW landfill is collocated with a major source as defined in 40 CFR 63.2.
3. The MSW landfill is an area source that has a design capacity equal to or greater than 2.5 Mg and 2.5 million cubic meters and has estimated uncontrolled emissions equal to or greater than 50 Mg/yr NMOC as calculated according to either 40 CFR 60.754(a) or 40 CFR 60.764(a) of the Standards of Performance for MSW Landfills that applies to the facility.

Since the facility has exceeded the 50 Mg/yr NMOC, it **is** subject to Subpart AAAA. Subpart AAAA was recently revised (March 26, 2020) to better align with the requirements for landfills under NSPS Subpart XXX and the Emission Guidelines of 40 CFR 60, Subpart Cf. These revisions no longer allow a MSWLF to comply with Subpart AAAA by complying with NSPS Subpart WWW (or any other standards for that matter). Therefore, the specific monitoring, recordkeeping, and reporting requirements of Subpart AAAA are addressed in the permit.

***40 CFR 63 Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE)***

The provisions of Subpart ZZZZ are applicable to stationary RICE located at area and major sources of HAP emissions. The facility does not operate any stationary RICE; therefore, the provisions of Subpart ZZZZ **are not** applicable to the landfill.

NEW SOURCE PERFORMANCE STANDARDS (NSPS) APPLICABILITY

***40 CFR 60 Subpart Cf – Emission Guidelines for Municipal Solid Waste Landfills***

These emission guidelines apply to municipal solid waste landfills that commenced construction, modification, or reconstruction on or before July 17, 2014. To address these guidelines, DEQ is in the process of developing a State Plan for approval by EPA, which will be incorporated in 11 Miss. Admin. Code Pt. 2, Ch. 1. Upon approval of the State Plan, the Title V permit may be reopened to address applicability of the State Plan and removal of the Federal Plan. However, if NEML has commenced modification to begin construction on the lateral expansion, 40 CFR 60 Subpart XXX will apply instead of the State Plan.

***40 CFR 60, Subpart WWW –* S*tandards of Performance for Municipal Solid Waste Landfills* *that Commenced Construction, Reconstruction, or Modification on or after May 30, 1991, but before July 18, 2014***

The provisions of Subpart WWW were previously applicable to municipal landfills that commence construction, reconstruction, or modification after May 30, 1991, but before July 18, 2014. The facility began accepting waste in 1995; therefore, the facility **was previously** subject to the requirements of Subpart WWW. A Tier 2 test conducted in 2017 resulted in the calculated NMOC emission rate exceeding 50 Mg/yr. A gas collection and control system (GCCS) Design Plan was received on August 16, 2018, and subsequently approved by DEQ on February 28, 2019, under Subpart WWW. Since EPA has issued a Federal Plan incorporating the requirements of the Emissions Guidelines issued under 40 CFR 60 Subpart Cf, the requirements of the Federal Plan under 40 CFR 62 Subpart OOO apply instead of 40 CFR 60 Subpart WWW.

***40 CFR 60, Subpart XXX – Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014***

The provisions of Subpart XXX are applicable to solid waste landfills that commence construction, reconstruction, or modification after July 17, 2014. NEML was constructed prior to the NSPS XXX effective date. The proposed lateral expansion will trigger applicability of Subpart XXX because it will meet the definition of a modification. A modification under Subpart XXX is defined as “an increase in the permitted volume design capacity of the landfill by either lateral or vertical expansion based on its permitted design capacity as of July 17, 2014. Modification does not occur until the owner or operator commences construction on the lateral or vertical expansion.” The provisions of Subpart XXX **will be** applicable upon commencing construction of a cell to accommodate expansion of the landfill. Because the monitoring, recordkeeping, and reporting requirements of Subpart XXX are almost identical to the Federal Plan and to MACT Subpart AAAA, the permit requires NEML submit a request for a minor modification to the Title V permit within 90 days of commencing construction (per 40 CFR 60.762(c)(2)) to incorporate the requirements of Subpart XXX.

FEDERAL PLAN

***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 17, 2014***

The Federal Plan implementing the 2016 Emission Guidelines and Compliance Times for Existing Municipal Solid Waste Landfills (40 CFR 60 Subpart Cf) was finalized on May 10, 2021. Since DEQ does not have an approved State Plan, the Federal Plan found in 40 CFR 62 Subpart OOO is in effect and enforced by EPA Region 4. The requirements of the Federal Plan are almost identical to those of 40 CFR 63 Subpart AAAA. Therefore, the requirements of both the Federal Plan and NESHAP are consolidated, when possible, with regulatory citations for both provided. In general, since NEML is already subject to the GCCS requirements, the only notable differences in the Federal Plan and the NESHAP relate to temperature monitoring and closure requirements. As allowed in 40 CFR 62.16716, 62.16720, and 62.16722 of the Federal Plan, NEML will opt to comply with only the operational standards, compliance provisions, and monitoring requirements (including those for temperature) found in the NESHAP, specifically 40 CFR 63.1958, 63.1960, and 63.1961. The Federal Plan is more stringent in that it allows for removal or decommissioning of the GCCS only after three successive reports show NMOC emissions less than 34 Mg/yr, as opposed to 50 Mg/yr in the NESHAP. The facility has an approved existing Landfill Gas Collection and Control System (GCCS) in place that includes alternative operating scenarios.

Should EPA approve a State Plan, DEQ will reopen the Title V permit to address the requirements of the State Plan and will remove the Federal Plan. However, should NEML undergo an expansion, or modification, NEML will become subject to the requirements of 40 CFR 60 Subpart XXX, which supplants both the Federal Plan and State Plan, though the requirements are almost identical to the Federal Plan.

SPECIFIC APPLICABLE REQUIREMENTS

|  |  |  |  |
| --- | --- | --- | --- |
| Emission Point No. | Pollutant | Draft Permit Emission Limits | Monitoring Requirements |
| AA-001 | NMOC | Install, operate, and maintain the approved GCCS, including active collection and control by a non-enclosed flare. | Perform monitoring according to NESHAP Subpart AAAA and the Federal Plan, 40 CFR 62 Subpart OOO, including monthly monitoring of each collection well for temperature, oxygen and/or nitrogen, and pressure. Conduct quarterly surface emissions monitoring for methane. Install an instrument to ensure the flare flame is lit when emissions may be vented to it. |
| H2S | 1 grain/100 scf | Collected LFG is routed to the flare or a third party for treatment. The flare is monitoring according to MACT Subpart AAAA. |
| Asbestos | Visible Emission Requirements | Daily visible emissions observations, if the “no visible emissions” compliance option is used |
| Warning signs/fencing | Does not require on-going monitoring. All signage and fencing is to be installed and maintained to deter access by the general public |