

STATEMENT OF BASIS
Arrowhead Landfill
Perry, County
Facility No. 107-0003
Significant Modification

On August 14, 2025, the Department received an application from Perry County Associates, LLC. The application proposes an increase in the design capacity of Arrowhead Landfill from 49.7 tons to 63.9 million tons and addresses the landfill's resulting applicability to 40 CFR Part 60, Subpart XXX (Standards of Performance for municipal solid waste (MSW) landfills that commenced construction, reconstruction, or modification after July 17, 2014). The current Major Source Operating Permit (MSOP) was issued on March 3, 2023 and expires on March 2, 2028.

Arrowhead Landfill is located at Route 2 Box 110A outside of Uniontown, in Perry County, Alabama, which is currently listed in attainment with all National Ambient Air Quality Standards (NAAQS).

There are no current or ongoing enforcement actions against Arrowhead Landfill necessitating additional requirements to achieve compliance with permit conditions.

Permit Changes

- The current permit has a section with applicability to 40 CFR 62, Subpart OOO, which is the Federal Plan requirements for MSW landfills and another section with applicability to ADEM Admin. Rule R. 335-3-19 for MSW landfills upon EPA's approval of that rule. These have both been replaced by a new section with applicability being only 40 CFR, Subpart XXX, standards for MSW landfills. No requirements have been removed or added, only the regulatory references have changed.
- A section covering requirements for handling asbestos waste has been added.
- A section covering control of fugitive dust has been added.

Regulatory History

Arrowhead Landfill originally submitted an application for a MSW landfill with a design capacity less than the 2.5 million megagrams and 2.5 million cubic meters on May 8, 2007 as required by 40 CFR Part 60, Subpart WWW. On February 1, 2010, an amended Design Capacity Report with an updated design capacity of 2.8 million cubic meters and 3.8 million megagrams was submitted. This design capacity increase made Arrowhead Landfill subject to permitting requirements. Initially, the landfill was subject to 40 CFR Part 60, Subpart WWW for MSW landfills until promulgation of Federal Rule 40 CFR Part 62, Subpart OOO, which applies to landfills that commenced construction on or before July 17, 2014 and have not been modified or reconstructed since July 17, 2014. Arrowhead Landfill voluntarily installed a gas collection system with an open flare control device and 15 small "tiki torch" flares. The landfill is also currently in the process of constructing a renewable natural gas (RNG) plant with a treatment system as an alternative control device. The RNG plant will have emission points of an open flare, thermal oxidizer, and emergency generator. Prior to construction, a determination was made that an Air Permit was needed only for the emergency generator portion of the RNG plant. That permit was issued on

May 7, 2025. The RNG plant is still under construction and not included in this modification.

Changes in Regulatory Applicability

This proposed increase in design capacity meets the definition of a modification according to the definitions within both 40 CFR 62, Subpart OOO and 40 CFR 60, Subpart XXX. With this current proposed increase in design capacity, the landfill will become subject to 40 CFR Part 60, Subpart XXX. The regulatory requirements that the landfill must fulfill remain the same under Subpart XXX as under Subpart OOO. The non-methane organic compound (NMOC) emission rate remains below the 34 megagrams per year threshold; therefore, a gas collection and control system (GCCS) will not be required by regulation at this time. The landfill voluntarily installed a GCCS earlier in 2025. Should the NMOC emission rate exceed 34 megagrams per year, the GCCS would have 30 months to begin meeting the operational requirements found in Subpart XXX.

Emissions

Potential emissions were calculated using EPA's Landfill Gas Emission Model (LandGEM) version 3.03. The table below represents the three different operating scenarios the landfill could see, including the RNG plant. The chart below represents the maximum potential emissions through the year 2029. Control measures will be required within 30 months of exceeding 34 Mg/yr NMOC emissions. The uncontrolled NMOC emission rate was determined to be 16.53 megagrams for the year 2024.

Potential Emissions in tons per year			
Pollutant	Uncontrolled Potential Emissions	Controlled Emissions- GCCS and Flare	Controlled Emissions- GCCS and RNG Plant
PM ₁₀	3.05	13.35	12.04
NO _x	7.13	30.13	27.23
SO ₂	2.77	11.85	3.48
CO	34.9	51.7	47.4
VOC	57.8	7.7	8.18
HAPs	13.1	6.3	6.03
Toluene	4.46	1.16	1.15
HCL	0.69	3.05	2.76

No other criteria pollutants are emitted in sufficient quantities, actually or potentially, to exceed the major source threshold of 100 tons per year.

Regulations

New Source Performance Standards (NSPS):

The facility is currently subject to 40 CFR 62, Subpart OOO, because it has a design capacity greater than 2.5×10^6 megagrams. The design capacity increase in the application is considered a modification, and the landfill will be subject to 40 CFR 60, Subpart XXX NSPS. Because the landfill has uncontrolled NMOC emissions less than 34 megagrams per year, it is still not yet subject to the portions of Subpart XXX covering gas collection and control systems. The landfill will still be required to submit an NMOC

report on an annual or five-year basis as long as the NMOC emissions are less than 34 megagrams per year. The site also currently performs Tier 2 testing every five years.

National Emission Standards for Hazardous Air Pollutants (NESHAP):

Arrowhead is not a major source for hazardous air pollutant (HAP) emissions. For this reason, and because the NMOC emission level is below 50 megagrams per year, the landfill continues to not be subject to 40 CFR Part 63, Subpart AAAA.

The site is subject to 40 CFR Part 61, Subpart M (National Emission Standards for asbestos) because Arrowhead has accepted waste containing asbestos. A section for Subpart M emission standards and recordkeeping and reporting requirements will be added to the permit. These provisos are consistent with permits for similar landfills.

Facility-Wide Fugitive Dust Control:

A section for fugitive dust control will be added to the permit. These provisos are consistent with permits for similar landfills. The landfill will be required to take reasonable measures to prevent fugitive dust that travels beyond the landfill property line. The permit outlines actions the site must take in different areas of the landfill to meet the dust control requirements. There is also a requirement to monitor visually on a weekly basis for the presence of fugitive dust. The landfill will be required to maintain records of dust inspections and include information on monitoring of fugitive dust control measures in the semi-annual report to the Department.

Prevention of Significant Deterioration (PSD):

The potential criteria pollutant emissions from the landfill will remain less than 250 tons per year; therefore, the facility is not subject to PSD.

Title V Modification

The proposed changes should be classified as a significant modification to the Title V permit. A 30-day public comment period and a 45-day EPA comment period would be required. The modifications will be incorporated into the Title V permit upon completion of the EPA review.

Recommendation

I recommend that Arrowhead Landfill's Title V Major Source Operating Permit (No. 107-0003) be modified to incorporate the changes mentioned above.

John Robert Gill
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Air Division

September 19, 2025