



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

March 23, 2023

Mr. Robert Dick, PE
Senior Vice President
SCS Engineers, PC
15521 Midlothian Turnpike, Suite 305
Midlothian, Virginia 23113

Dear Mr. Dick:

This letter is in response to your letter of request dated December 8, 2022, acting on behalf of Hanes Mill Road Landfill (Landfill) located in Winston-Salem, North Carolina, regarding the decommissioning of landfill gas (LFG) collection system extraction component Well 823. The landfill is subject to Title 40 C.F.R. Part 62, Subpart OOO (Federal Plan Requirements for Municipal Solid Waste (MSW) Landfills that commenced construction on or before July 17, 2014, and have not been modified or reconstructed since July 17, 2014). The Landfill is also subject to Title 40 C.F.R. Part 63, Subpart AAAA, National Emission Standards for Hazardous Air Pollutants: MSW Landfills.

On June 21, 2021, the U.S. Environmental Protection Agency promulgated the Federal Plan. In the absence of an approved state plan implementing Title 40 C.F.R. Part 60, Subpart Cf, Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills, or an approval transferring delegation of authority to a state to administer the Federal Plan, the EPA is required to act as the Administrator of the Federal Plan. To avoid duplicative efforts for determinations related to reviews under Subpart AAAA, the Forsyth County Office of Environmental Assistance and Planning has agreed that the EPA may provide a determination for Subpart AAAA on its behalf when a response is required for Subpart OOO and there is an associated response required under Subpart AAAA.

On December 8, 2022, we requested additional information from you and received the information on February 8, 2023. Based on a review of your submittal, and additional information you provided, the EPA agrees that Well 823 may be decommissioned, subject to the requirement to conduct quarterly surface emission penetration monitoring at the subject well. Details regarding the basis for our determination are provided in the remainder of this letter.

Background Information of Well 823

LFG extraction component Well 823 is a vertical well located in Phase 1, Cell 3 of the Landfill. On March 15, 2022, a fire occurred at Well 823 and the well was damaged beyond repair. As a result, the Landfill cannot operate or monitor Well 823 and requests the EPA's confirmation that the well may be decommissioned.

EPA's Review of Relevant Standards for Subparts OOO and AAAA

1) Subpart OOO

Under 40 C.F.R. § 62.16711(a), the designated facility to which Subpart OOO applies is each municipal solid waste landfill in each state, protectorate, and portion of Indian country that commenced construction, reconstruction, or modification on or before July 17, 2014, or has accepted waste at any time since November 8, 1987, or the landfill has additional capacity for future waste deposition.

Under 40 C.F.R. § 62.16714(a)(3), owners or operators of a MSW landfill having a design capacity greater than or equal to 2.5 million megagrams (Mg) by mass and 2.5 million cubic meters (m³) by volume must collect and control MSW landfill emissions at each MSW landfill that has a non-methane organic carbon (NMOC) emission rate greater than or equal to 34 Mg per year (Mg/yr).

Under 40 C.F.R. § 62.16728(a)(1), owners or operators must site active collection wells at a sufficient density throughout all gas producing areas. The collection devices within the interior must achieve comprehensive control of surface gas emissions. The comprehensive control plan must be certified under the seal of a professional engineer. Under 40 C.F.R. § 62.16728(a)(3), the determination for placement of gas collection devices must ensure control of all gas producing areas, except for areas of the landfill which are segregated for placement of asbestos waste or nondegradable waste material.

Under 40 C.F.R. § 62.16720(c)(1), after installation and startup of a gas collection system, owners or operators must monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the instrumentation specifications and procedures specified in 40 C.F.R. § 62.16720(d). Additionally, under 40 C.F.R. § 62.16716(d), monitoring must also be conducted where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations. Under 40 C.F.R. § 62.16720(c)(4), any reading of 500 parts-per-million (ppm) or more above background at any location must be recorded as a monitored exceedance and the actions specified in 40 C.F.R. § 62.16720(c)(4)(i-v) must be taken.

2) Subpart AAAA

Under 40 C.F.R. § 63.1935(a), owners or operators of a MSW landfill are subject to Subpart AAAA if the landfill has accepted waste since November 8, 1987, or has additional capacity for waste, and is a major source as defined in 40 C.F.R. § 63.2 of Subpart A, or is an area source landfill that has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m³ and has estimated uncontrolled emissions equal to or greater than 50 Mg/yr NMOC as calculated according to 40 C.F.R. § 63.1959.

Under 40 C.F.R. § 63.1935(b), owners or operators are subject to Subpart AAAA if they own or operate a MSW landfill that has accepted waste since November 8, 1987, or has additional capacity for waste deposition, that includes a bioreactor, as defined in § 63.1990, and is a major source as defined in § 63.2 of Subpart A, or is an area source landfill that has a design capacity equal to or

greater than 2.5 million Mg and 2.5 million m³ and that is not permanently closed as of January 16, 2003.

Under 40 C.F.R. § 63.1959(b)(2), each owner or operator of an affected source having a design capacity equal to or greater than 2.5 million Mg and 2.5 million m³ must submit a collection and control system design plan prepared by a professional engineer and install and start up the collection and control system to capture the gas generated within the landfill within 30 months after the first annual report in which the NMOC emission rate equals or exceeds 50 Mg/yr, excepting certain allowable procedures to act otherwise.

Under 40 C.F.R. § 63.1962(a)(1), owners or operators must site active collection wells at a sufficient density throughout all gas producing areas. The collection devices within the interior must achieve comprehensive control of surface gas emissions. The comprehensive control plan must be certified under the seal of a professional engineer. Under 40 C.F.R. § 63.1962(a)(3), the determination for placement of gas collection devices must ensure control of all gas producing areas, except for areas of the landfill which are segregated for placement of asbestos waste or nondegradable waste material.

Under 40 C.F.R. § 63.1960(c)(1), after installation and startup of a gas collection system, owners or operators must monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the instrumentation specifications and procedures specified in 40 C.F.R. § 63.1960(d). Under 40 C.F.R. § 63.1958(d)(2)(ii), the owner or operator must monitor any cover penetrations that are within an area of the landfill where waste has been placed and a gas collection system is required. Under 40 C.F.R. § 63.1960(c)(4), any reading of 500 ppm or more above background at any location must be recorded as a monitored exceedance and the actions specified in 40 C.F.R. § 63.1960(c)(4)(i-v) must be taken.

EPA's Determination

Subparts OOO and AAAA specify siting standards for active gas collection wells and require comprehensive control of surface gas emissions after installation of a gas collection system. Based on the available information, the EPA agrees LFG extraction component Well 823 may be decommissioned. However, the Landfill must monitor the wellhead during quarterly surface emission monitoring events since the wellhead penetrates the surface of the Landfill. The EPA's determination is based on the following information:

SCS Engineers has certified, under the seal of a professional engineer, that adjacent wells will provide sufficient overlap coverage of the area serviced by Well 823. The Landfill provided a drawing which indicates the radius of influence of Well 823 and radiuses of influence of wells in the proximities of the subject wells.

The review of your request was coordinated with the EPA Region 4's Enforcement and Compliance Assurance Division and is based upon prior consultation with our Office of Air Quality Planning and Standards and Office of Enforcement and Compliance Assurance and is consistent with similar approvals issued by our office. If you have any questions about the response provided in this letter, please contact Mr. Tracy Watson of my staff at (404) 562-8998 or by email at watson.marion@epa.gov.

Sincerely,

ANTHONY
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Caroline Y. Freeman

Director

Air and Radiation Division

cc: Peter Lloyd, FC OEAP
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