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Seneca Energy II landfill gas plant seeks amended new air permit

By DAVID L. SHAW dshaw@fltimes.com Mar 7, 2023

What is landfill gas?

According to the U.S. Environmental Protection Agency, landfill gas (LFG) is a natural byproduct of the decomposition of organic material in landfills. LFG is composed of roughly 50% methane (the primary component of natural gas), 50% carbon dioxide (CO2), and a small amount of nonmethane organic compounds.

SENECA FALLS — Owners of a facility that burns Seneca Meadows methane to produce electricity and natural gas are seeking an air permit to build and operate a second facility on Route 414.

Oakfield-based Seneca Energy II is in the Route 414 Renewable Resources Park across from privately owned Seneca Meadows, the state's largest landfill. SEII has applied to the state Department of Environmental Conservation Region 8 office in Avon for a renewal and modification of its existing air-discharge permit.

The DEC has prepared a draft permit and made a tentative determination, subject to public comment or other information, to approve a renewal and modification of the Title V air permit.

Comments on the project must be submitted in writing no later than March 31 to Kimberly Merchant, DEC Region 8 headquarters, 6274 East Avon-Lima Road, Avon, NY 14414. Or, contact Merchant at 585-226-2466 or DEP.R8@dec.ny.gov.

The SEII plant is a 17.6 megawatt facility that combusts landfill gas purchased from Seneca Meadows. The current plant includes 18 internal combustion engines that produce electricity for addition to the state grid. The facility also includes a 6,000-cubic-feet-perminute high BTU plant that recovers the methane, refines it, then adds it to the natural gas pipeline running along Route 414.

The company wants to construct and operate a second high BTU facility to process up to 9,600 cubic feet per minute of methane.

As part of the new construction, eight of the 18 internal combustion engines will be converted from landfill gas fuel to natural gas fuel. The company says engine stacks will have an oxidation catalyst to allow for a reduction in exhaust emissions amounting to a 93% reduction in carbon monoxide, an 80% reduction in formaldehyde, and a 75% reduction in volatile organic compounds. The 10 remaining engines will be shut down permanently and removed from the facility within a year of the start up of the new high BTU plant.

The new permit, as modified, would also incorporate the addition of a fire pump engine, the elimination of a 2,000-cubic-feet-per-minute closed flare, the addition of an open flare for limited hours to burn off-specification gas, and modification of a existing thermal oxidizer.

DEC officials said the proposed new permit maintains all current air quality requirements during the transition period. No later than a year after the new plant is operating, a new limit for nitrogen oxide discharge of less than 99.9 tons per year will be set. DEC officials also said that once the second high BTU facility is in operation, the plant will generate less than 25 tons per year of carbon monoxide and will not require a CO limit.

The DEC has requested and received information regarding the project's consistency with the state's Climate Leadership and Community Protection Act.

The U.S. Environmental Protection Agency has the authority to bar the issuance of a Title V air permit if it is determined not to be in compliance with the federal Clean Air Act.

The DEC will evaluate the application and the comments received on it to determine whether to hold a public hearing. The DEC also said the project is an unlisted action and will not have a significant negative impact on the environment.

The Seneca Falls Town Board is the lead agency for the State Environmental Quality Review process.

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