



Region 2 Enforcement & Compliance Assurance Division
Air Compliance Branch
CAA Inspection Report

Inspection Date: 7/13/2021
Facility Name: Albany County Water Purification District - SOUTH PLANT
Facility Address: 209 CHURCH ST ALBANY, NY 12204
ICIS-Air ID #: NY0000004010100020
Facility Contact: Craig Hurteau, Permit Compliance Manager (518) 447-1611
EPA Lead Inspector: Phillip Ritz
EPA Asst. Inspector: Julian Velez
State Inspector(s): Mark Lanza fame, NYSDEC
Other Inspector(s): Lauren Claeys, NYSDEC

Pertinent Regulatory Requirements

Albany County Water Purification District (ACWPD) operates a wastewater treatment facility (South Plant) that is permitted for an average flow of 29 million gallons per day (MGD). Primary components of the wastewater treatment process consist of preliminary treatment (grit screens), primary clarifiers, aeration tanks, final clarifier, sludge holding tanks, and chlorination tanks. Sludge removed during the wastewater treatment process is thickened using dissolved air flotation units, chemically conditioned for odor control and coagulation/flocculation, and then dewatered using a belt press.

The cake from the belt press is incinerated in one of two multiple hearth incinerators, each of which vents to a VenturiPak (TM) scrubber system, with only one incinerator in operation at any given time. Incinerator ash is managed in two on-site lagoons, where the ash can dry prior to being sent off site for use or disposal.

The South Plant includes a non-exempt 1250 kW diesel fired stationary internal combustion engine that is primarily used for emergency backup purposes. The engine is subject to 40 CFR 63 Subpart ZZZZ. Diesel fuel for the engine is stored in a 4,000-gallon horizontal storage tank that is exempt from permitting per 6 NYCRR Part 201-3.2(c)(26).

Albany County Water Purification District - SOUTH PLANT is defined by the following emission unit(s):

- Emission unit 1SSISP - This unit consists of two seven-hearth furnaces (MHF01 and MHF02) that incinerate sewage sludge generated from the treatment of municipal wastewater received at the Albany County South Plant. Only one furnace is in operation at a given time. Each furnace is vented to a VenturiPak (TM) Scrubber System consisting of a quench stage, condenser stage, venturi, and high efficiency mist eliminator.

- Emission unit 1SSISP is associated with the following emission points (EP): 00001, 00002 Process: INC is located at Building SOLIDS - Incineration of sewage sludge in two multiple hearth furnaces.

Summary of Observations

We arrived at facility at 10:30 am with NYSDEC inspectors and met with facility representatives: Craig Hurteau (Permit Compliance Manager), Jacob O'Connor (Permit Compliance Technician), and Tyler Masick (Superintendent of Operations).

The facilities hours of operation are Monday to Friday, 12-hour shifts.

Operations: 2 Administrative Buildings and 2 solid waste operations. The facility covers all the City of Albany.

The wastewater goes through preliminary treatment, primary treatment, and pre-disinfection.

The facility has six screens, primary pumps (at the highest point to allow gravity flow), preliminary grid, primary treatment, secondary process, clarifiers, UV-disinfection, combination with secondary sludge and then incineration. There is an exhaust by-pass in case of scrubber failure which is not for normal operations.

There are sludge-holding tanks and two lagoons for ash collection.

The South-Plant incinerator has 7 hearths (oven like compartments in the incinerator).

The facility mentioned possible plans for waste digesters as future project.

Facility Walkthrough started at 11:10 a.m.

We walked around the wet process: primary screens, could observe the 6 pumps (one was leaking a small amount), the rocks and sand settles (inorganic part) and is trucked to a landfill, and the diffusers keep organic material going through the process. The wastewater is aerated before microorganism treatment and oxygen (facility performs daily sampling for microorganism count). In the aeration tanks, the facility tries to have an even/homogeneous mixture in parallel segments. Lastly the UV-disinfection completes the wet process.

Incinerator building: facility representatives mentioned that incinerator has had some repairs over the years. The scrubber has temperature and pressure monitoring parameters, and subdivisions for condenser tray and mist eliminators. Inspectors observed the belt press, which removes some water from the sludge before the incinerator.

Control room: sewage feed rate (wet tons/hr), and the oxygen concentration. Approximately 4.5 tons/hr is fed into the incinerator.

Inspectors observed the ash box. Ash goes through a wash using acid-water.

Inspectors observed a water leak at the base of the offline incinerator.

The inspectors and the facility representatives walked to the ash lagoons, the major component of ash are phosphorus and nitrogen.

Closing Meeting:

We held a closing discussion and finished at 1pm.

The stack test on 5/7/2019 had a lowest feed rate of 3.54 tons per hour wet sludge.

For actual wet sludge feed rates on a ton per hour basis, on October 1, the unit ran at 4.75 tons per hour.

Lead Inspector's Name: Phillip Ritz

8/26/2021

X Phillip Ritz

Lead Inspector

Signed by: PHILLIP RITZ

Assisting Inspector's Name: Julian Velez

8/31/2021

X Julian D. Velez S

Assisting Inspector

Signed by: JULIAN VELEZ SANCHEZ

Supervisor's Name: [Click here to enter name.](#)

9/2/2021

X Gaetano LaVigna

Supervisor

Signed by: GAETANO LAVIGNA