

PISCATAWAY BIOENERGY PROJECT UPDATE

SPRING 2024 NEWSLETTER



Overview of the Piscataway Water Resource Recovery Facility



All Major Construction Activities are Complete

The Piscataway Bioenergy Project has reached the major milestone of completing all major construction activities! Earlier this year, the last of the three boilers was delivered to the project site, which is the last piece of major equipment. Once delivered, the team quickly completed the work of piping up the boiler and connecting it to the engine generators.

Apart from minor punch list activities, all work at the Piscataway site is related to the start-up, testing and commissioning of the individual components and subsystems. Most Functional Testing has been completed with only the CHP system – engine generators and boilers – still underway.

Testing the CHP system has been a major focus this spring because it is one of the most complex project systems. The engine generators will provide the electricity required to run the Piscataway Bioenergy Project. They will also provide back-up power to the entire Piscataway Water Resource Recovery Facility in the event of a complete utility failure, which can occur during major storms.

The exhaust heat from the engine generators is fed into the boilers to create steam to operate the Cambi system. Testing the generators has been a carefully orchestrated process involving the entire plant, in collaboration with the local utility SMECO.

The boilers depend on the exhaust heat from the engine generators to create the steam that will support operations and the medium temperature hot water loop that heats multiple other systems. In addition, they can accept three different fuel sources – natural gas, biogas directly from the digesters or renewable natural gas from the gas cleaning system.

Operational demonstration and performance guarantee testing has also started this spring. The pre-dewatering belt filter presses that will process the solids from the Piscataway plant have completed operational demonstration and performance testing, and are ready for operation once the surrounding systems are tested and operational ready.

Progress Highlights Since Last Update (Winter 2024)



Installation of the third and final boiler



Engine testing with SMECO



Sidestream seeding



Testing the gas cleaning system

Performance testing of pre-watering belt filter presses



Final boiler has been installed and connected to the engine generators



Seed media installed in sidestream tank



PROJECT TIMELINE



PLANNING

Completed June 2018



DESIGN

Completed February 2020



DEMOLITION AND UTILITY RELOCATION
Completed December 2020



CONSTRUCTION

Underway
Began June 2020



TESTING

Began Spring 2022



COMPLETION

Late 2024

Upcoming Work

- Digester seeding
- Operational demonstration testing for multiple systems

The Piscataway Bioenergy Team

Your WSSC Water Piscataway Bioenergy Team includes:



OWNER
www.wsscwater.com



DESIGN-BUILDER
www.pconstruction.com



LEAD ENGINEER
www.stantec.com
www.hazenandsawyer.com



PROGRAM MANAGER
www.hdrinc.com