

PISCATAWAY BIOENERGY PROJECT UPDATE

WINTER 2024 NEWSLETTER



Overview of the Piscataway Water Resource Recovery Facility



Bioenergy Site Poised for Startup

With major construction at the Piscataway Bioenergy Project site nearly complete, the project now moves into the Startup and Commissioning stage. The complexity of the project requires Startup and Commissioning to be divided into parts. The first step will ensure that the facility can effectively treat the solids produced at Piscataway before receiving solids from WSSC Water's four other water resource recovery facilities. Each step of this multi-phase process is described below:

- **Functional Testing** is the process of confirming the proper installation of the equipment. It involves starting up equipment for a limited period of time to ensure that systems operate as intended, including testing of all electrical and data connections and verification of controls programming.
- **Operational Demonstration** involves testing the reliability of the equipment and making any necessary adjustments for optimal performance. The operations team will gain experience operating the equipment during this phase.

- **Performance Testing** ensures that the facility is able to meet the required performance standards.
- **Acceptance Testing** confirms that the entire facility operates reliably as a whole with the expected performance.

Working collaboratively, the project team has nearly completed the Functional Testing phase and is preparing for Operational Demonstration. The first system to move into Operational Demonstration will be pre-dewatering, with Piscataway WRRF solids introduced to the solids-screens and belt filter presses. During this phase of testing, the equipment manufacturers work closely with the team to oversee the testing and proper operation.

In addition to the testing now underway, the team is preparing to begin the operations of the digesters. Before solids can be introduced to the digesters, they must be purged of all oxygen by filling the tanks with a combination of water and nitrogen. The required equipment has been positioned on site and the team will begin the process early this spring.

Progress Highlights Since Last Update (Fall 2023)



Continued asphalt paving the site



Continued operator training by vendors



Installed temporary heat exchanger



Piping the engines to the boilers



Installed gas odorizer

Overview of the solids processing, thermal hydrolysis pretreatment and odor control facilities



During Operational Demonstration, team members test the belt filter presses to make sure they work properly



Team members check the solid screens control panel



Upcoming Work

- Installation of the third and final boiler
- Engine testing and integration with associated systems
- Feeding solids into digesters to start biological processes
- Conditioning sidestream media
- Testing the gas cleaning system

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

The Piscataway Bioenergy Team

Your WSSC Water Piscataway Bioenergy Team includes:



OWNER

www.wsscwater.com



DESIGN-BUILDER

www.pcconstruction.com



LEAD ENGINEER

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