

PISCATAWAY BIOENERGY PROJECT UPDATE

SUMMER 2024 NEWSLETTER



Overview of the Piscataway Water Resource Recovery Facility



All Major Construction Activities are Complete

The Piscataway Bioenergy Project continues to reach major milestones as the project moves closer to completion slated for later this year. The most recent milestone – seeding the anaerobic digesters, is the first step in starting the biological process, which is the heart of the Bioenergy Project. The natural biological process, of anaerobic digestion, uses natural bacteria to break down wastewater biosolids.

When anaerobic digestion facilities are initially commissioned, they require seeding with biologically active sludge to produce the bacteria required for the anaerobic digestion process to work effectively. To accelerate the process of the bacteria adapting to the new environment, the preference is to seed with biologically active sludge that has gone through similar processes. At the Piscataway site, biosolids flow through the new thermal hydrolysis process (THP) before going to the anaerobic digesters.

In early June, for four nights, 200,000 gallons of seed sludge were trucked from DC Water to the Piscataway Water Resource Recovery Facility to

seed one of the two digesters. DC Water was the source of the seed sludge because they also use the THP process.

Once the first digester reached its normal operating level, it transferred solids to the second digester. In early July, the THP started operating 24/7 and processing all the biosolids from the Piscataway Facility. Currently, both digesters are operating and producing digested sludge and limited amounts of biogas. The digested sludge is processed through the post-dewatering belt filter presses, where most of the fluid is removed to create the final biosolids.

Seeding the sidestream reactors was the other milestone achieved this summer. The sidestream process removes the ammonia and other nutrients from the fluid removed from the biosolids.

In early July, seeded media was transferred from a Denver, Colorado THP facility to Piscataway. The seeded media from Denver will help accelerate the acclimation of the sidestream reactors.

Progress Highlights Since Last Update (Spring 2024)



Digester seeding



Sidestream Seed Media Transferred from Denver



Continued System Performance Testing



Plant Operations has transitioned to 24/7

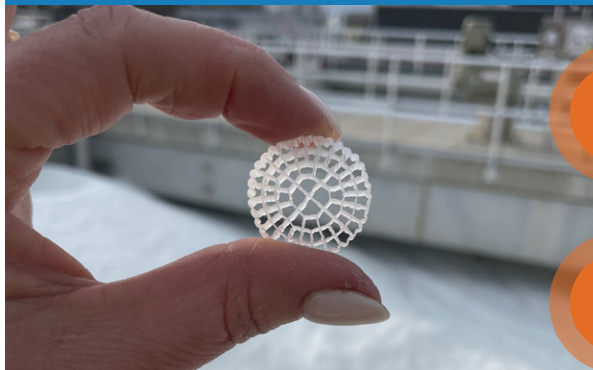
Seeding sidestream reactors



Seed Sludge trucked in from DC Water to seed digesters



Virgin media placement into the reactors, prior to receiving seeded media from Denver, Colorado



Next Steps

- Begin receiving biosolids from WSSC Water's four other wastewater recovery facilities.
- Gas production will increase enough to start cleaning the biogas produced by the digesters and injecting it into the Washington Gas pipeline.
- Performance and acceptance testing will continue through the fall and early winter.

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:



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