

Calumet WRP's Goals and Objectives for 2019-2022

Goal – Usage of the Central Boiler Facility for heating digestion

Objective

Use the steam produced at the Central Boiler Facility for heating sludge in the anaerobic digesters.

Description

Currently, the digester facility has individual boilers for each cluster of digesters. Design a project to use steam from the recently constructed Central Boiler Facility to heat the sludge with better fuel economy and replace the aging hot water to sludge heat exchangers.

Measurability

Baselines will be established for the following: digester temperature variability, the quantity of natural gas purchased, and the operation and maintenance costs of sludge heating system. Post construction baseline will be used to determine if digester temperature variability has been reduced by 10%, the quantity of natural gas purchased has been reduced by 25%, and the operation and maintenance costs of the sludge heating system have been reduced by \$350,000.

Affect to Biosolids Production

This system will assist anaerobic digester performance by stabilizing sludge temperatures and reduce operations and maintenance costs of the current sludge heating system.

Relevant EMS Outcomes

Increasing the use of the Central Boiler Facility's co-fired boilers will minimize the use of purchased natural gas for sludge heating.

Action Plan

2018-2019: Continue tracking, on a monthly basis, the measurability factors to establish a baseline for each. The Engineering anticipates an award of contract

2020-2022: Complete the project and track measurability factors for a two year period.

Tracking Progress

Engineering project 06-213-3M has been approved with an anticipated award date of April 2019. The Engineering Department will track project progress via CPM's and will provide quarterly reports upon request to the Calumet Plant Operations Manager. Track measurability factors on a monthly basis and submit in a quarterly progress report.

Responsible Person(s)

Section 831 – Operations Manager (ETPO 1)

Section 545 – ME4

Funds/Resources

Funds for the project have been budgeted in the Engineering Department.

Target Date

12/31/2022

Calumet WRP's Goals and Objectives for 2019-2024

Goal – Utilize All Biogas

Objective

Improve Digester Performance.

Description

Determine the most cost effective method to achieve 100% utilization of digester gas.

Measurability

Monthly digester gas production and percentage used, the quantity of natural gas purchased, and the operation and maintenance costs of Central Boiler Facility and comparing data prior and post operation of the digester gas utilization RFP project.

Affect to Biosolids Production

Improve anaerobic digester performance and reduce operations and maintenance cost of the current digestion process by 10%.

Relevant EMS Outcomes

Better relations with interested Parties, Environmental Performance, Quality Management Practices.

Action Plan

Accept and review proposals and award of RFP during the first quarter of 2019. Create a baseline for measurability factors.

Tracking Progress

Monthly tracking of digester gas production and utilization for 2014-2019 to create a base-line to reflect future improvement. Create base-line for reducing operations and maintenance costs. Tracking will continue through 2024. Upon award, the Managing Engineer will attend Engineering progress meetings. Provide quarterly status via a Bar Graph for RFP.

Responsible Person(s)

Section 831 – Operations Manager (ETPO 1)

Section 834 - COE1/ACOE

Funds/Resources

Funds for the project have been budgeted in the Engineering Department.

Target Date

12/31/2024