

ANAEROBIC DIGESTER FOR PURPOSE ENERGY

SOUTH BURLINGTON, VT

THE CHALLENGE

Modify the digester vessel, the primary component for the anaerobic digestion process, mid-way through this design-build project at a Vermont micro-brewery to accommodate the client's revised schedule and financing delays without impacting the integrity of the process.

THE SOLUTION

Pizzagalli investigated two material options for the digester vessel: cast-in-place concrete and a glass-lined steel tank.

DESCRIPTION

The process to treat the organic waste products would require a very large and complex vessel with interior features uncommon in standard glass-lined steel tanks. It was determined that using a glass-lined steel tank would be more costly and require more time to install than a cast-in-place concrete tank. The installation of a cast-in-place tank would also provide greater flexibility with the design of the project. After the project was designed with the cast-in-place tank, the project faced delays due to financing and required permits.

With these delays, the project faced a winter construction start. In addition, the world market conditions changed dramatically and the cost of steel had reduced.

Recognizing that placing concrete during the winter months in Vermont is more costly, the design-build team reconsidered the use of a cast-in-place digester. Further investigation and analysis revealed that



the glass-lined steel tank was now less expensive than the cast-in place concrete and could be installed during the winter for far less time and money than the concrete. Our continued diligence, knowledge, and ability to quickly react to changing market conditions allowed the client to move forward with construction. Once Pizzagalli completes the construction of this project, PurposeEnergy will have helped a local Vermont micro-brewery reduce its carbon footprint.



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