

Membrane Gas Holder Replacement and Digester Cleaning, EWRP

Project Number: 11-403-2P

Service Area: North

Location: Egan WRP

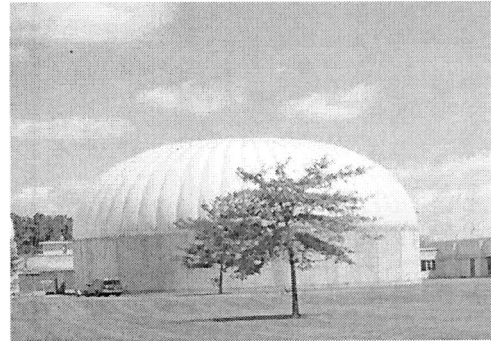
Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$2,000,000

Contract Award Date: December 4, 2014*

Substantial Completion Date: October 19, 2016*



Project Description: Drain and clean Digesters A through D. Remove and replace the Dystor membrane gas holders at Digesters B and D. Remove and replace digester gas plug valves for Digesters A through D. Install new digester gas plug valves to allow Digesters B and D to be isolated. Install new actuators to some of the new/replaced valves to isolate digester gas during emergency shutoff events. Provide control wiring to the Distributed Control System (DCS) for these valves. Programming of the DCS will be performed by District personnel. Install new check valves in gas mixing pipelines to prevent sludge backflow at Digesters A and C. Replace flushing water lines in Digesters A and C. Replace digested sludge sampling pipes at Digesters A through D. Replace mixing gas flow meters and associated gas piping, as necessary, at Digesters A and C.

Project Justification: Digesters A through D need to be drained and cleaned in order to maintain proper capacity and to perform the contract work. Digesters B and D currently use the Dystor membranes to contain and store biogas. Those membranes were installed around the year 2000. They are typically designed to be replaced every 12 to 14 years. It is economically justified to replace the membranes in kind in order to maintain the unit capacities and capabilities of safe utilization of digester gas. The existing digester gas plug valves are degraded to the point of being non-operational and spare parts are not available for rebuilding, therefore they need to be replaced. These valves and additional new valves are required for adequate isolation of digester gas piping. DCS control of the actuated digester gas valves is required to allow complete isolation of the digester gas system in an emergency.

Project Status: This project is being designed.

*Information shown is estimated.