



About the project

The Annacis Island Wastewater treatment plant (WWTP) treats about 175 billion litres of wastewater every year. Located in Delta, BC this plant provides secondary treatment of wastewater for over 1 million residents in 14 municipalities. The treated wastewater is then discharged into the Fraser river.

The plant uses anaerobic digestion to break down organic materials from wastewater to produce biosolids and methane gas. The methane gas produced from this process is then used to generate the heat and electricity used to run the plant. The Annacis Island plant produces enough energy to meet 100% of its own heat requirements and about 50% of its electricity requirements. This in turn

Project Information

Country
Canada
Completion
2015
Project Type
WWTP Upgrade
Building Type
Municipal
Applications
Foul Air Piping
Size of Uponor products
48”RSC160, 54”RSC160, 72”RSC160. Total Length 200 meters plus various elbows, reducers and laterals

helps reduce its greenhouse gas emissions by 660 tones every year. Due to the rapid growth of Metro Vancouver, the Annacis Island WWTP is undergoing an expansion to increase treatment capacity. The project will include the addition of a foul air system that will improve the air quality for the community living and working in proximity of the facility.

Optimal product requirement

In a foul air system, air is drawn from trickling filters through a piping network into a filtration facility in order to remove the odours. The material of choice for this highly corrosive application was Weholite.

Produced from corrosion-resistant, high-density polyethylene resin Weholite is impervious to exposure from hydrogen sulfide gas and sulphuric acid condensate. Available in large diameters Weholite is easily fabricated into a wide array of standard and custom fittings. Combining that with the product's light weight and ease of handling Weholite stood out as an ideal cost effective choice.

Brown and Caldwell, the project's civil design consultant, specified leak-free joints as a system requirement. Weholite's field extrusion welded joining system easily satisfied this important system design condition.

On time delivery prerequisite

Onsite construction of the system presented an additional challenge. The existing plant facility could only be shut down for a very limited time period to accommodate this portion of the plant expansion. The contractor and Infra Pipe field technicians accepted the challenge and worked for 21 hours straight to complete the installation. In spite of paucity of time, a leak free system was successfully installed and tested.

Straight from the customer

Robbie Plavcic, the site superintendent of JJM Construction commented as follows:

"Tie-ins to the existing pipe is always difficult and the Infra Pipe technicians did an outstanding job on making these connections which had to be done within a 24 hour window. The lightness of the Weholite pipe and the strength of the welded joints enabled most of the pipe to be connected outside the trench and then lowered into place as one large spool piece."

Delivery of company's commitment

Infra Pipe satisfied each of the demands presented by Metro Vancouver's Annacis Island Waste Water Treatment Plant project. This displays Uponor's commitment to its customers and to the communities it serves. The Annacis Island project stands as a shining example of Uponor's dedication to partnering with professionals in order to provide the

most efficient, reliable and high-performing designed solutions that enrich people's way of life. For more information about Uponor's different products and services, visit the company website on infrapipes.com.