

## Old Coal Wharf Wastewater Treatment Plant, Jamaica

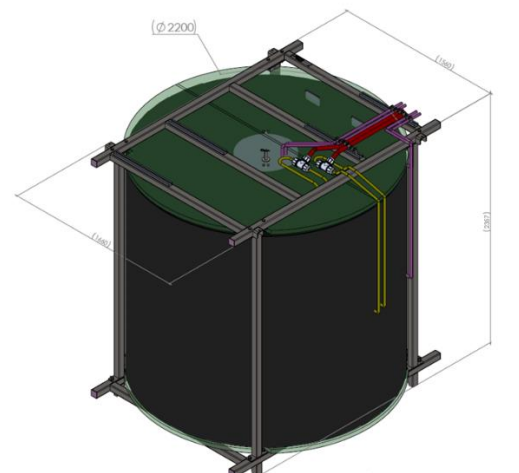
ETA is currently involved in the detailed design, supply of all equipment and construction of the wastewater treatment facility for the new cruise ship terminal in the Village of Port Royal, Jamaica.

It was estimated that a cruise ship with approximately 4,000 people will be docking at the new pier. The estimate of the sanitary sewer that will be generated from the people disembarking and embarking the cruise ship as well as the local staff is 150 m<sup>3</sup>. Accordingly, the new sewage treatment plant was designed with the ability to treat this flow and to comply with the guidelines for discharge established by NRCA and NEPA.



The challenge for the design was the fact that the cruise ship comes only once a week, so the wastewater treatment plant should be able to treat the flow generated in one day for the entire week. In order to ensure that the biological treatment was designed with a recirculation pattern as well as a septage receiving station, that is able to receive one septic truck in one week. The septage flow is to be used as “food” for the biological treatment. The plant is fully automated to achieve the process conditions for treatment to be effective.

Since the sewer flow from the Village of Port Royal will be added to the new STP, a provision was made to allow the plant to operate at a flow of 150 m<sup>3</sup>/day. Additional MABR modules will be added into the anoxic tanks to achieve this.



As more catchments from the Village of Port Royal will be connected to the conveying system in the future, the new STP design and implementation will allow an additional 100 m3/day to be treated. As apart of this, a separate screen and a complete new biological train will be implemented.



The main challenges for this project were the location and the flexibility to treat a wide range of flows. For this reason, all the equipment, piping and valving located outside of the tanks, were made of stainless steel or aluminium. For this project ETA supplied all the equipment, valves, electrical panels, automation including PLC and Motor control Centers. We used the equipment that is standardized for our projects in Jamaica to ensure ease of operation and maintenance.

