

CRANSTON, RHODE ISLAND WATER POLLUTION CONTROL FACILITY

Client: City of Cranston, RI
Project Manager:
Daniel J. Coughlin, P.E.



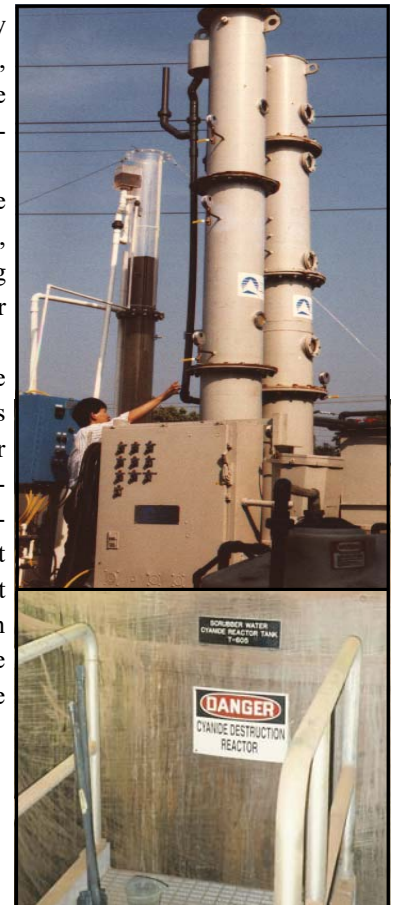
The Cranston Wastewater Treatment Plant project was completed by Mr. Coughlin prior to forming CES. The project included several evaluation and design efforts at the existing 23 MGD advanced wastewater treatment facility over

several years. The treatment facility included screening, grit and grease removal, primary clarification, two stage activated sludge process using draft tube aerators, secondary settling, effluent chlorination. Sludge thickening and disposal were accomplished using sludge blending, dissolved air flotation (DAF), gravity thickening and filter press dewatering followed by multiple hearth incineration.

Mr. Coughlin duties included the development of an Operation and Maintenance Manual for upgraded Chlorination facilities, sludge blending and odor control assessments, performance assessments for the various unit processes, design of improved sludge receiving facilities, evaluation, design and construction management of incinerator scrubber water treatment systems, and development of an Industrial Pretreatment Program for the city.

Mr. Coughlin also developed a Comprehensive Wastewater Management Plan for the upgrade of the WPCF for Advanced Treatment per Judicial Judgment. The planning process involved the Development of "Site Specific" Aquatic Water Quality Criteria, later used for statewide applications, coordination of waste load allocation analyses, benthic deposit studies and receiving water modeling, Infiltration/Inflow (I/I) analyses, Non-Point pollution assessments, regional alternative conveyance and treatment evaluations for the City of West Warwick and Town of Warwick, the design, construction, operation and management of pilot testing facilities to assess potential treatment processes and to develop conceptual design criteria for select nutrient removal, aeration and filtration alternatives including the innovative Biological Aerated Filter nitrification technology, which was later developed for on-site wastewater disposal system use by F.R. Mahony as the Amphidrome process.

The total value of proposed facilities was over \$40,000,000.



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