

NRG 1M GALLON FUEL OIL STORAGE FACILITY



PROJECT NAME: NRG Storage Facility

PROJECT ADDRESS: Staten Island, NY

PROJECT DESCRIPTION:

Providing oil as an alternative source of fuel at the Arthur Kill Generating Station required the implementation of a new storage facility and delivery system.

RCMT engineered and designed the new Fuel Oil Storage Facility, utilizing a newly constructed one million-gallon Fuel Oil Storage Tank filled with No.6 Fuel Oil. The Oil Supply is piped under the river to a location in close proximity to the original storage tank and pump house. The old tank and pump house facility were demolished and the property restored.

The tank fill pipe is directed to the plant site via an underground pipe tunnel and an above ground trestle. The pipe within the tunnel is constructed with double wall pipe using encapsulation technology and an electronic leak detection system. The above ground piping is sufficiently elevated above the surface by a trestle support system.

The six (6) Fuel Oil Transfer Pumps receive their suction flow from the storage tank's normal discharge connection. The flow is then separated for the two boiler units independent Fuel Oil Feed Systems. Each system's suction flow passes through a duplex strainer to protect the pump and boiler fuel system from any traveling debris.

Each Unit's Fuel Oil Feed System has three (3) 50% capacity pumps. A combination of any two of the three pumps can readily supply the boiler fuel flow. The third pump is maintained in standby with auto-start capability to supply and maintain system pressure. The pump discharges can be modulated to ensure matched pump performance and shared load.