



Pre-Engineered Lift Stations

- Wastewater
- Stormwater
- Industrial

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DUPLEX – 6' X 13' CUSTOM SYSTEM

Wet Well, Valve Vault, Electrical Controls, existing SCADA interface

DESIGN REQUIREMENTS FOR THIS LIFT STATION:

Construction of a new power generation plant required a lift station to pump process water and storm water to an onsite storage tank or a holding pond.

Romtec recommended: MT2PC controller, interface w/ plant SCADA system

THIS ROMTEC UTILITIES SYSTEM INCLUDED:

Concrete wet well: fall & confined space entry control

Pump disconnect panel: with free air stand, cable hatch

Piping & accessories: all stainless steel

ITT Flygt pumps: CP3102 MT, 5 HP

Level monitoring & control: Primary - MultiTrode probe, Redundant / back-up – Multitrode probe w/MTR relays, storage tank high water holdout – ITT Flygt ENM-10

Concrete valve vault: fall & confined space entry control, 4" system, check & plug valves, air actuated butterfly valves, discharge pressure gauge, dual force main

Electrical controls: UL listed

Communication: Dry contacts, Owner provided SCADA system

ROMTEC UTILITIES' FREE DESIGN SERVICES INCLUDED:

- All lift station sizing, design, drawings, specifications
- All structural & mechanical drawings
- All control & communication design & drawings
- Layout of equipment on the site plan
- Development of submittal documentation
- Secure agency approval of submittals
- Provide onsite construction advisor & start-up services
- Provide operations & maintenance manuals, onsite training of agency personnel



DESIGN YOUR LIFT STATION AND GET A QUOTE

Romtec Utilities provides lift station design and quotation service on our website, www.romtecutilities.com. Click on the Design/Quote button at the top of the web page.

Photos: Steve Crane, courtesy of Basin Electric Power Cooperative



SITE DETAILS

Construction of a new peaker power generation plant required a lift station to pump the cooling process water and plant storm water to a holding tank or a detention pond. The onsite holding tank was the reservoir for the cooling system and needed to be full, thus a level control device was placed in the tank to switch the pumped flow between the tank and the pond. Romtec was chosen as the solution for this challenging project.

LIFT STATION DESIGN DETAILS:

WET WELL

Dimensions: 6' dia. x 13' depth

Top Slab: Custom Romtec Utilities H-20 traffic rated with Flygt Safe-Hatch access cover with patented cable hatch, Romtec pump disconnect panel in stainless enclosure/stand

Influent: 8" dia. PVC with Kor-N-Seal flexible boot, HDPE influent deflector

Discharge: Flygt 4" discharge elbow (2), 4" dia. Sch. 40 stainless steel discharge piping

FLYGT PUMPS

Model/HP: CP3102/5HP (2), one pump equipped with Flygt Mix-Flush Valve model 4901

Electrical: 480V/3-phase

VALVE VAULT

Dimensions: 8'-8"l x 6'-8"w x 9'-3"d

Hatch in Top Slab: ITT Flygt FDRND-HD-50X74 H-20 RATED

Piping: 4" dia. Ductile, dual force main design

Valves: ValMatic Swing Flex check valve – 504BF-MI

ValMatic Cam Centric eccentric plug valve – 5804RN

DeZurik butterfly valve (Air actuator) – BF4F1NBR25AT

Pressure Sensor: Red Valve – Series 40

CONTROLS

Enclosure: NEMA 4 (painted steel), 36" x 48" x 12" w/24" leg kit

Controller: MultiTrove MT2PC

SCADA: Dry contacts to interface with the agencies existing SCADA system

Level Sensors: Primary - MultiTrove probe 1.5/10-10m, Redundant level control – MultiTrove probe 0.6/3-10m, High water holdout at discharge point – ITT Flygt float – ENM-10

DOCUMENTATION

Scope of Supply & Design Submittals: Full submittals for:

- Wet well hatch, discharge elbows, pumps, piping & accessories
- Valve vault, hatch, check & operational valves, air actuated butterfly valves, pressure gauge & piping.
- Electrical controls, controller, starters, battery backup, level sensing etc.

Operations & maintenance manuals: Complete as-built drawings & manuals including parts list for all Romtec Utilities supplied items.

