

Cynergy Electric Company, Inc.

Anne Arundel County SPS Generator Phase 4

Anne Arundel County
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Anne Arundel County, Department of Utilities, issued Cynergy a \$1.8 million contract to replace generators at thirteen (13) water pumping station locations throughout the county. The generators provided back-up emergency power for water and wastewater pumping stations.

At each location there were civil, electrical and mechanical services required. Cynergy was responsible for providing all equipment, labor, material and other work for the removal of existing equipment and the installation of the new emergency generator systems at each remote site.

Each site was different but required similar work disciplines. Generator sizes ranged from 35-300kW with voltages from 208Y120 to 480Y277, transfer switch sizes ranged from 150-600 amp and 500 gallon fuel tanks.

Mechanical features that were incorporated into the project included;

- Exhaust piping, exhaust flex and silencers
- Fuel piping systems
- Duct-work, dampers, louvers, access doors, etc.
- Exhaust pipe insulation
- Fuel tank systems-main and sub-base types
- Pipe testing
- Providing diesel fuel for testing

Structural/Civil features that were incorporated into the project included;

- New 4000PSI concrete pads
- 600 gallon underground fuel tank removal and disposal
- Demolish existing concrete pads

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- Perform soil and groundwater sampling testing
- Removal and disposal of contaminated soil
- Underground utility location
- Landscaping of disturbed areas to original condition
- Asbestos sampling on existing generator exhaust piping insulation

Electrical features that were incorporated into the project included;

- Replacing the main circuit breakers and coordinating with the electrical power utility
- Panelboard installations with phase monitors
- Automatic transfer switch installations
- Grounding system upgrades
- Generator rigging and installations including vibration isolators
- Power circuits for the generator including circuits for battery chargers, fuel tank pumps, dampers, block heaters, manual transfer switches, etc.
- Control circuits for transfer switches, generators and fuel pumping systems operation

Commissioning and field testing were a large component in the project. Testing was performed on each piece of equipment and the generator system as a whole to demonstrate capabilities. Third party testing was provided for all equipment and cables. Factory field services were provided for the generators, transfer switches and fuel systems. Hands on training and operation and maintenance manuals were provided for all operational systems.

