

## Client: **Morton Salt (Fairless Hills, PA) Jersey Shore Project**

Deuchler Electrical and Controls Engineers provided design services for the electrical power distribution and process controls for a new expansion of salt processing manufacturing facility.

Deuchler Engineering provided the following deliverables:

### Power Distribution:

- Single Line Diagrams,
- Motor Control Center (MCC) Front Elevation Drawings,
- Schematic Diagrams,
- Electrical Installation Plan Drawings,
- Panelboard Schedule,
- Conduit & Cable Schedule, and
- Specifications for equipment procurement and project installation.

Design included the Electrical Service Entrance for this portion of the building, including upstream unit substation modification requirements and an overhead service lateral pole line. This project included approximately 65 electrical loads, consisting primarily of motors, many with variable frequency drives (VFDs) ranging in size from 1 HP to 250 HP. Deuchler designed the MCC layout, including circuit breakers, motor starters and VFDs to serve these loads. The MCC design also incorporated power monitoring, surge protection and Ethernet communications capabilities. Conduit & Cable Schedules identified cable type, size and conductor quantities, as well as conduit type (PVC, RGS, FMC, etc.) and sizes.

Incorporating the Ethernet communications capabilities, power monitoring, VFDs and electronic overload relays, this modern MCC design allows for much greater control and monitoring of:

### Enhancements via MCC Design:

- Process systems,
- Power consumption, and
- Trending of device data as a tool for predictive maintenance scheduling.

