

3.0: Execution

3.1 Installation:

Equipment will be installed by the contractor in accordance with final submittals and contract documents. Installation will comply with applicable state and local codes as required by the authority having jurisdiction. Install equipment in accordance with manufacturer's instructions and instructions included in the listing or labeling of UL listed products.

Installation of equipment will include furnishing and installing all interconnecting wiring between all major equipment provided for the on-site power system. The contractor will also perform interconnecting wiring between equipment sections (when required), under the supervision of the equipment supplier.

Equipment will be installed on concrete housekeeping pads. Equipment will be permanently fastened to the pad in accordance with manufacturer's instructions and seismic requirements of the site.

Equipment will be initially started and operated by representatives of the manufacturer.

All equipment will be physically inspected for damage. Scratches and other installation damage will be repaired prior to final system testing. Equipment will be thoroughly cleaned to remove all dirt and construction debris prior to final testing of the system.

3.2 Factory Tests:

Equipment supplied will be fully tested at the factory for function and performance.

Factory testing may be witnessed by the owner and consulting engineer. Costs for travel expenses will be the responsibility of the owner and consulting engineer. Supplier is responsible to provide two weeks notice for testing.

Generator set factory tests on the equipment will be performed at rated load and rated PF. Generator sets that have not been factory tested at rated PF will not be acceptable. Tests will include: run at full load, maximum power, voltage regulation, transient and steady-state governing, single step load pickup, and function of safety shutdowns.

Transfer equipment factory tests: Each transfer switch supplied will be factory tested before shipment. Factory tests will include a complete functional test of the transfer switch controls, including calibration of the voltage sensors.

3.3 On-Site Acceptance Test:

The complete installation will be tested for compliance with the specification following completion of all site work. Testing will be conducted by representatives of the manufacturer, with required fuel supplied by Contractor. The Engineer will be notified in advance and will have the option to witness the tests.

Installation acceptance tests to be conducted on-site will include a "cold start" test, a two hour full load test, and a one step rated load pickup test in accordance with NFPA 110. Provide a resistive load bank and make temporary connections for full load test.

3.04 Training

The equipment supplier will provide training for the facility operating personnel covering operation and maintenance of the equipment provided. The training program will be not less than 4 hours in duration and the class size will be limited to 5 persons. Training date will be coordinated with the facility owner.