Attachment D-2: Electrical Scope of Work

Project: Targa Sound Renewable Fuels Project
Location: Tacoma, WA

Prepared by:

NORWEST ENGINEERING
Consulting Engineers
4110 N.E. 122nd Avenue, Portland, Oregon 97230
503-254-0110

<table>
<thead>
<tr>
<th>Revision</th>
<th>Date</th>
<th>Description</th>
<th>Prepared</th>
<th>Checked</th>
<th>Approved</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2/27/12</td>
<td>Issued for Bid</td>
<td>AKS</td>
<td>DHB</td>
<td>BCK</td>
</tr>
</tbody>
</table>


1.0 SCOPE OF SUPPLY

Refer to Attachment D, Technical Specification, Section 2.3, for summary Scope of Work.

2.0 OWNER-FURNISHED MATERIALS

MCC-7, replacement Soft starters in MCC-4, new soft starter sections in MCC-4, replacement vacuum breaker in substation, new distribution transformer TX-701, Cathodic protection equipment, Acculoads and TopTech Optical Isolators will be provided by the Owner and provided to the contractor from a storage location at the job site.

3.0 SCHEDULE

The Contractor is to prioritize the work in order to complete the truck rack electrically by July 20, 2012 and the entire project by October 1st, 2012.

4.0 SCOPE OF WORK

4.1 Complete installation and wiring of truck rack control equipment.

4.1.1 Install new truck rack Acculoads.
4.1.2 Wire Accuload control wiring to all rack valves, meters, instrumentation and additive equipment as shown in drawings 125-807-E20 thru 125-807-E48 and 125-814-E1 thru 125-814-E2.
4.1.3 Reroute exiting Accuload additive control wiring from current additive skid location to new locations at the end of each truck loading lane.
4.1.4 Install and fabricate new PLC cabinet as shown in drawings 125-814-E3.
4.1.5 Wire Truck Rack PLC CP-550 to Acculoads as shown in drawings 125-802-E10 thru 125-802-E16.
4.1.6 Install new Panelboards PB-550 and PB-560 as shown in drawings 125-814-E3 and 125-893-E1.
4.1.7 Demo TK-8 tank heater panel and DC power panel as shown in drawings 125-814-E3.
4.1.8 Testing and commissioning of above electrical equipment.
4.1.9 The truck rack will be operational during construction. Contractor shall work safely and minimize downtime on active lanes for the duration of the project.
4.1.10 Portions of the truck rack project have not been fully detailed on the above drawings. See section 5.0 (Additional Electrical Scope Items) below for details on these items.

4.2 Complete installation of new power feed from substation to MCC-4 and MCC-7.

4.2.1 Install Owner-furnished refurbished Vacuum breaker in existing substation as shown in drawings 125-801-E1 and 125-801-E4. Contractor must coordinate with Targa and supplying vendor for plant shutdown.
4.2.2 Install Owner-furnished power distribution transformer TX-701 on existing concrete pad as shown in drawings 125-801-E1 and 125-801-E4.
4.2.3 Install new switchboard SWBD-701 near TX-701 as shown in drawings 125-801-E1 and 125-801-E4.
4.2.4 Install side-entry power cables and conduit from substation to TX-701.
4.2.5 Install below ground cables and conduit from TX-701 to SWBD-701.
4.2.6 Install below ground cables and conduit from SWBD-701 to MCC-4 and MCC-7.
4.2.7 Demo in place existing MCC-4 power feed. (Currently fed from MCC-3).
4.2.8 Testing and commissioning of above electrical equipment.

4.3 Complete installation of modifications and expansion to MCC-4.
4.3.1 Demo existing FVNR starters and replace with Owner-furnished soft-starters for existing Ethanol pumps.
4.3.2 Install new Owner-furnished soft-starters for new Premium Unleaded pumps.
4.3.3 Reconnect existing Ethanol pump power cables to new Ethanol pump soft-starters.
4.3.4 Install new cables and conduit for new Premium Unleaded pumps from MCC-4.
4.3.5 Install new cables and conduit for control wires from new PLC CP-750 to MCC-4.
4.3.6 Testing and commissioning of above electrical equipment.

4.4 Complete installation of all electrical equipment in the New Tank Farm area.
4.4.1 Install Owner-furnished MCC-7 as shown on drawing 125-801-E3.
4.4.2 Install cable and conduit to all pumps fed from MCC-7 as shown on drawings 125-801-E1 thru 125-801-E3.
4.4.3 Install panelboard PB-710 as shown on drawings 125-801-E1 and 125-801-E3.
4.4.4 Install power cables and conduit to PB-710.
4.4.5 Install power cables and conduit from PB-710 to Motor operated valves in Pipeline area as shown on drawings 125-801-E1 and 125-801-E3.
4.4.6 Install power cables and conduit from PB-710 to Mini-Power Zone MPZ-730 as shown on drawings 125-801-E1 and 125-801-E3.
4.4.7 Install power cables and conduit from PB-710 to step-down transformer TX-710 as shown on drawings 125-801-E1 and 125-801-E3.
4.4.8 Install step-down transformer TX-710 as shown on drawings 125-801-E1 and 125-801-E3.
4.4.9 Install power cables and conduit from TX-710 to panelboard PB-720 as shown on drawings 125-801-E1 and 125-801-E3.
4.4.10 Install panelboard PB-720 as shown on drawings 125-801-E1 and 125-801-E3.
4.4.11 Install power cables and conduit from PB-720 to all serviced equipment as shown on drawing 125-801-E1 and panelboard PB-720 schedule.
4.4.12 Install lighting and lighting contactors as shown in drawing 125-801-E6.
4.4.13 Install Mini-Power Zone MPZ-730 near new north security gate as shown in drawing 125-801-E3 and panelboard schedule.
4.4.14 Install receptacles, unit heaters and lighting in Foam building.
4.4.15 Install receptacles along south containment wall as shown on drawing 125-
4.4.16 Install and fabricate new PLC Panel CP-750 as shown on drawings 125-801-E3 and 125-802-E1 thru 125-802-E9.
4.4.17 Wire PLC CP-750 to instrumentation in new tank farm area as shown in drawings 125-802-E10 thru 125-802-E16.
4.4.18 Wire PLC CP-750 to motor control circuits in MCC-7 as shown in drawings 125-802-E10 thru 125-802-E16 and 125-801-E2.
4.4.19 Wire PLC CP-750 to Motor operated valves in Pipeline area as shown in drawings 125-802-E10 thru 125-802-E16.
4.4.20 Install fiber-optic connection between New Tank Farm PLC CP-750 and Office Building PLC.
4.4.21 Install motor control wiring as shown in drawing 125-801-E2.
4.4.22 Install equipment, lighting and tank grounding as shown in drawing 125-801-E5.
4.4.23 Testing and commissioning of above electrical equipment.
4.4.24 Portions of the tank farm project have not been fully detailed on the above drawings. See section 5.0 (Optional Electrical Scope Items) below for details on these items.

5.0 OPTIONAL ELECTRICAL SCOPE ITEMS

5.1 Wire communications between new Acculoads at Truck Rack to existing RCUs through new optical isolators located in existing Optical Isolation panel near MCC-5.
5.2 Install fiber-optic connection between Truck Rack PLC CP-550 and New Tank Farm PLC CP-750.
5.3 Install ControlNet connection between Truck Rack PLC CP-550 and existing Truck Rack PLC located in MCC-5.
5.4 Install new power feed for PB-550 from existing PNL-1 in MCC-5. Use TK-8 tank heater panel circuit to power new panel PB-550.
5.5 Install power feed to new additive pumps from PB-550. New additional additive pumps to be located where existing additive pumps are.
5.6 Install power feed to new Panelboard PB-560 from existing panel CB-1 located in MCC-5.
5.7 Install power feeds to new Acculoads from PB-560.
5.8 Installation of power feed to Cathodic Protection equipment. Cathodic Protection equipment to be installed by supplying vendor.
5.9 Install approx. 900 ft. of electrical heat trace per specification on above grade 6” stormwater line.
5.10 Existing electrical equipment located on the loading dock must be demo’d and replaced with new equipment properly rated for the electrical classification of the area. This equipment will include a new transformer, panelboard, step-down transformer and lighting contactor.