

SCOPE OF WORK

Olympus PLC UP-GRADE

Owner DFCM and Utah Department of Corrections

This scope of work is for material and labor for the replacement/upgrade of the existing Series 6 PLC equipment and logic to the new General Electric Series 90-30 PLC's. This replacement/upgrade is in the Olympus Facility. The Olympus Facility is a maxim/medium security facility and all security procedures must be followed at all times.

1. In each cell, the electrical power, loud speakers, door status, door opening and closing, call switch, and water shutoff shall be controlled from the Olympus Control Room. Such that the status of each element in the cell is correctly monitored and controlled manually by a system of low and line voltage.
2. Control operations and emergency functions shall not exceed 50% of existing power supply capacities and shall not be susceptible to inmate tampering with call switches, door indication circuits, to include all possible ways inmates may tamper with "in cell" devices to cause the power or control operations to the new panels and logic to fail. Equipment shall also be protected and optically isolated from voltage transients, surges and brown-outs that may be caused by inmate tampering.
3. All timed control and interlocking security functions must be maintained.
4. All emergency release and control room shutdown functions must be included.
5. All existing Series 6 PLC's and related hardware shall be removed and turned over to the owner. All materials necessary to install the new General Electric Series 90-30 PLCs shall be furnished in this contract.
6. The project shall be staged to insure that only one section is being worked on at any one time. During work on this section it is anticipated control of this section shall be maintained manually. All systems in the other sections shall be operative during this period. The contractor shall coordinate all work with prison personnel.
7. At the conclusion of this project the contractor shall furnish four (4) complete sets of full color as-builts drawings and 4 CDs showing completed circuitry, wiring diagrams, etc. for use in future trouble shooting and maintenance.

8. All wires must be identified on both ends at the point of termination with tubular heat shrink or other permanent label system with typed identifications in clear founts of at least 10 pt. all wires and terminations shall be identified on color as built drawings and in numerical order, with identification number, voltage in normal state, polarity, termination points, system the wire is being used in IE. (call Button, Door Indication, Door Open Signal, etc.) also a cross-reference location on as built drawings.
9. Wire markers and/or terminal strips used with specific voltages or polarities shall be identified by color labeling or insulation color. IE, black for (-) red for (+) 12VDC, blue for (+), 24 VDC, yellow for door control, pink for door indication, white for intercom etc.
10. At the conclusion of this project the contractor shall furnish four (4) complete sets of O&M manuals, showing equipment make and model, supplier location, and emergency point of contact with 24 hour phone number.
11. Contractor shall furnish sixteen (16) hours of training to prison personnel. Owner will determine the intervals and times for this training to be performed.

Methods and wire and terminal identification systems must be approved by submittal process with owner prior to contractor's purchase and installation. Failure to have identification system approved prior to installation will be cause for termination of contract with the state being held harmless for any and all damages for materials, labor or cost related to this work.

Contractor shall furnish a full one (1) year warrantee on all equipment and material not furnished by owner. Contractor shall furnish a full one (1) year warrantee on all labor.

Contractor will provide 10% attic stock on all equipment, hardware and parts used in this project.

Hardware that occurs less than 10 times will have one identical replacement ie. Power supplies, CPU, I/O moduals etc. supplied to the owner as part of this contract.

The spare CPU will be provided with the latest logic flashed into its memory before placed into stock. This will enable the CPU to be pre-programmed and operational on an emergency replacement situation. If any updates are made to the logic by the contractor from service or warentee work for the period of one year, the spare CPU memory shall also be updated with the latest version of logic by the contractor.

All documents, plans, as-builts and submittals shall become the property of UDC along with all rights to use and reproduce these documents as necessary for the operations of UDC.