

Camp Dodge Lift Station Controls Upgrade Scope of Work (Project # 19084319):

Overview: The existing USFilter controller and operator interface has been obsolete for several years and upgrades are recommended as soon as possible.

-All new control equipment to be retrofit into the existing enclosure control section. (right side).

-All 3-phase power distribution equipment, circuit breakers, motor starter and transformers on the power section (left side) will remain and no upgrades are included for this equipment. This equipment is still in good working order.

-All parts to be BABA (Build America Buy America) compliant. Any exceptions need to be approved by Camp Dodge contracting officer in writing.

Vendor Supply:

LIFT STATION CONTROL UPGRADES

- (1) 15A, 1-POLE 120V CIRCUIT BREAKER
- (1) 120V SURGE ARRESTOR
- (1) 120V UPS
- (1) 24VDC POWER SUPPLY SIZED AS NECESSARY
- (1) 5-PORT ETHERNET UNMANAGED NETWORK SWITCH
- (1) PRIMARY PUMP CONTROLLER: ALLEN BRADLEY 5069 COMPACTLOGIX WITH REQUIRED I/O MODULES
- (1) 7" COLOR TOUCH SCREEN OPERATOR INTERFACE
- (1) FLOAT BACK UP PUMP CONTROL CIRCUIT
- (1) MODBUS GATEWAY FOR CONNECTION TO FEDERAL MONITORING SYSTEM
- (1) 2-CHANNEL INTRINSICALLY SAFE BARRIER FOR (2) FLOAT SWITCHES
- (1) 1-CHANNEL INTRINSICALLY SAFE BARRIER FOR (1) LEVEL TRANSDUCER
- (2) 2 CURRENT SENSING RELAYS FOR PUMP RUNNING STATUS
- (LOT) REPLACEMENT OF ALL RELAYS, TERMINAL BLOCKS AND MISCELLANEOUS COMPONENTS REQUIRED FOR COMPLETE AND OPERATIONAL SYSTEM

NEW RADIO TELEMETRY EQUIPMENT

- (1) ARISTA RADIO TRANSCEIVER, LICENSED FREQUENCY COMPATIBLE WITH EXISTING SYSTEM
- (1) ANTENNA COAX SURGE ARRESTOR
- (1) YAGI DIRECTIONAL ANTENNA WITH 25FT OF ANTENNA COAX CABLE DOOR MOUNTED PILOT DEVICES: 22MM, EACH WITH ENGRAVED NAME PLATE

- (2) PUMP HAND-OFF-AUTO SELECTOR SWITCH
- (2) PUMP RUNNING INDICATING LIGHT
- (2) PUMP OVERTEMP INDICATING LIGHT WITH INTEGRAL RESET PUSHBUTTON
- (2) PUMP SEAL FAIL INDICATING LIGHTS
- (1) FLOAT BACK UP ACTIVE INDICATING LIGHT WITH INTEGRAL RESET
PUSHBUTTON
- (2) POWER MONITOR STATUS LIGHTS, NORMAL & FAIL
- (1) ALARM SILENCE/RESET PUSHBUTTON
- (1) PRIMARY CONTROLLER FAIL INDICATING LIGHT EXISTING CONTROL
EQUIPMENT TO BE RETAINED
- (2) ABS PUMP OVERTEMP/SEAL FAIL MODULES
- (1) FIBER OPTIC PATCH PANEL
- (1) FIBER TO ETHERNET NET CONVERTERS AND JUMPER CABLE
- (1) SENSPHONE ALARM DIALER AND PHONE LINE TERMINATION BLOCK

NEW INSTRUMENTATION

- (1) SUBMERSIBLE LEVEL TRANSDUCER

Vendor Services:

- Complete Control Panel Design, Submittals and O&M Manuals. Include multiple days on-site to trace down wiring of existing system. Assuming that wiring diagrams of the existing system cannot be located.
- Complete Control Panel Fabrication and Wiring
- Complete Control Panel PLC/OIT Programming and Testing
- Complete on-site labor and materials required for internal control panel upgrades/modifications.
- Complete on-site system programming of existing Water Plant SCADA and radio communication system for lift station monitoring, control and alarms.
- Operator Training on new control system
- System Call Back Services: (1) trip to job site during first year of operation for any system programming changes or operator training that may be required.

Excludes:

- Any modifications to power distribution equipment such as breakers, transformers, motor starters, transfer switches, etc.

- Replacement of float switches. Existing switches assumed to be functional.
- Any modifications to the system monitored by Camp Dodge. Vendor shall provide Modbus data mapping as required and coordinate with Camp Dodge on the data required.