



**Specifications for Units 7 & 8 Hot Water System Replacement at
Northeast Correctional Complex (NECX)
Tennessee Department of Correction (TDOC)**

Location:

Northeast Correctional Complex
5249 Highway 67 West
Mountain City, TN 37683

Facility/Project Contact:

Terry Henson
Facilities Manager
Office: 423-727-3515
Cell: 423-716-5785
Terry.L.Henson@tn.gov

Scope of Work:

This procurement is for the installation of four (1) complete hot water system, which includes the replacement of two (2) domestic hot water units located inside the Units 7 & 8 building mechanical room at NECX. This will include eight packaged plate and frame heat exchangers and all the related domestic water system piping, valves and insulation installed at the building's mechanical room.

The Contractor shall disassemble, remove, and dispose of the two (2) existing Hesco Hyrdonc hot water units from the room. The Contractor shall provide and install two (2) new Camus skid packages instantaneous heaters inside of the existing mechanical room.

The Contractor shall prepare and provide shop drawings to the Facilities Manager for State approval prior to beginning any work. Work may begin once approved by the appropriate State authorities. New valves, strainers, expansion tanks circulating pumps and appurtenances will be designed by the Contractor to fit inside in the confines of the existing mechanical room in accordance with shop drawings prepared by the Contractor and approved by the Facilities Manager.

- Contractor shall verify adequate water flow from city main line in the room where water units are located to provide 62 gpm of hot water at 120 degrees Fahrenheit for each unit.
- Contractor shall provide and install new supply lines from the heat source side that will be connected to the hot water loop system with the proper flow meter and shut off valves.
- Contractor shall provide and install water piping on the domestic side plumbed to the remaining existing hot water piping after demolition with the new shut off valves and insulation per their design.
- Contractor shall replace return hot water pump and connect it to the new hot water system.



- New electrical shall be installed by the Contractor to each unit with the proper disconnect from the existing building electrical line previously feeding the existing water heaters extending over to the new water heaters point of entry. Contractor may reuse as much of the original feeders to the electric water heaters as possible or run a new pipe and circuit from the existing panel.
- Contractor shall put the completed water heating system including all piping and electrical into service and check for and repair all leaks inside mechanical room.
- and check for proper operation.
- Contractor shall provide and install all new insulation on all new piping and fittings in mechanical room and this insulation will be covered with PVC jacket.
- Contractor shall provide and install labeling showing flow direction on all new piping. All new valves shall be labeled by Contractor to show correct operation.
- Contractor shall provide an operation and maintenance manual and training illustrating system operation shall be provided to TDOC at the time installation is completed.
- Contractor shall clean the area and remove all debris from project and dispose of it.
- Sign-off of project by Facilities Manager shall be the start of warranty period.
- Contractors may schedule a site visit by contacting Terry Henson using the contact information listed above.
- Awarded Contractor shall be insured. Delivery and maintenance personnel shall also be insured.

A handwritten signature in black ink, appearing to be 'Terry Henson'.

8-7-24