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1785 S. Metro Parkway
Centerville, OH 45459

"Established in 1977"

Dayton Correctional Institution Steam System Replacement

Dayton, OH

Construction Completion: 2017
Construction Cost: $1,300,00
Tri-Tech Services: MEP Engineering

Project Description

The Dayton Correctional Institution operated with an outdated, underground steam distribution system. Tri-Tech supplied a design providing a necessary update to the campus-wide system.

The underground distribution system pushed steam to the campus's eleven buildings from the central powerhouse at 150 psi through gas-fired boilers. Before the steam is utilized for various purposes in each building, the pressure is reduced to 10 psi.

Tri-Tech studies and evaluation revealed that the thirty-year-old system needed to be updated and replaced many areas.

After a feasibility study to evaluate the system, Tri-Tech determined that replacing it was the most reliable and cost-effective option. In place of the singular underground campus distribution system, each building would be outfitted with modern and efficient point-of-use boilers.

Tri-Tech created designs to convert the heating system to high efficiency gas boilers and gas-fired domestic water heaters. Tri-Tech's design included sizing, selection, and installation of the new boilers, pumps, water treatment, and water heaters. Designs for campus-wide underground gas distribution were also supplied. To ensure the replaced, upgraded mechanical components would operate, Tri-Tech evaluated the existing electrical systems in its design process. The design required installing reconfigured and new emergency along with normal power distribution.

The upgraded system would outperform the outdated system and save the client heating and water costs over time.