



U.S. Department
of Veterans Affairs

Office of Construction &
Facilities Management

Office of Facilities Planning
Facilities Standards Service

STANDARDS ALERT

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VA Consideration of Heat Recovery/Heat Pump Chiller- Heaters

ISSUE: Allowance of proven HVAC concepts and equipment while VA specific standards are developed.

BACKGROUND: Refrigerant cycle-based, water chilling and heating equipment is being utilized by nationwide design, construction, and facility management firms. VA wishes to take advantage of the numerous benefits Heat Recovery/Heat Pump water chiller-heaters can provide while working to incorporate design and installation specific details into existing standards.

DISCUSSION: Increased need for sustainable design solutions (specifically regarding energy efficiency and electrification) requires unique design concepts now and into the future. Utilizing the advantages of the refrigeration cycle to chill water, heat water, and simultaneously chill and heat water will assist with sustainable goals, while also providing options for buildings outside the reach of central plant utilities.

NEW INTERIM GUIDANCE: Heat Recovery/Heat Pump Water Chiller-Heaters are available in multiple configurations and for multiple purposes. In general, uses for building chilled water and heating hot water generation in arrangements of central plant, distributed or supplemental to existing equipment will be considered. Water source equipment is preferred. Equipment components must be compliant with current VA design requirements for chillers. Design submissions incorporating this technology must be submitted for review and concurrence and/or feedback from OHE and CFM through the OHE Design Review Request SharePoint site. [Design Review Requests \(sharepoint.com\)](https://sharepoint.com). Include in submissions a comparison of the system's heating and cooling capacity at respective design conditions to the facility design heating and cooling loads. If utilized as more than the available +1 capacity of the Cooling and Heating capacity, this shall be considered a Central Plant and requirements for redundancy, resilience, emergency power, load allowance for future flexibility, etc. shall apply.

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