
232500 WATER TREATMENT SYSTEMS

Part 1 – GENERAL

1.1 Description

A. This section details the guidelines and expectations for the ownership and treatment of the water systems on Johns Hopkins University Homewood Campus. Project conditions and requirements vary, thus precluding the absolute adherence to the items identified herein in all cases. However, unless there is adequate written justification and approval from the JHFRE Engineering and Energy Department, it is expected that these guidelines will govern the design and specifications.

1.2 Submittals

N/A

1.3 Quality Assurance

A. All water treatment within the plant at Homewood campus shall be limited to Guardian.

B. Water treatment in all other buildings on the Homewood campus shall be limited to Guardian, Waterchem and Chemstar.

C. Systems tied into the campus system do not need means to provide chemical treatment; these systems are treated at the campus plants. Closed loop systems dedicated to the building shall have a shot feeder system to deliver chemical treatment.

D. In all cases, JHU's water treatment contractor shall be consulted during design and specified during construction to recommend the proper course of action and proper chemistry requirements based upon the system metallurgy on hand. The industry standard definition of clean is a surface free of mill scale, slag, grease, oil, dirt, and corrosion products. All new piping systems shall be specified to be chemically pre-treated using an agent in compliance with the University's water treatment contractor standards. JHU's water treatment contractor shall test the water to ensure that the contaminant levels coming out of the system in the effluent are identical to that of the makeup water source, in accordance with AWWA-C651.

E. Any new/old system shall be specified to be flushed with clean fresh makeup water until the water coming out of the system is identical in content to the water going into the system. This ensures that any chemical agents used are completely rinsed out of the system and any corrosion products, oils, greases, etc. are removed from the system.

F. All new piping shall be specified to be cleaned, flushed, treated and hydrostatically tested to ensure clean, flushed, treated and leak-free construction prior to JHFRE acceptance.

Part 2 – PRODUCTS

N/A

Part 3 – EXECUTION

3.1 Whenever a dedicated building system is drained down, provisions shall be included to provide water treatment during the refill of the system.

3.2 Provisions shall be taken before draining and refilling dedicated building glycol systems as necessary. Where possible isolate sections of renovation to eliminate having to drain and refill the entire system.