230051-H: SUPPLEMENTAL WATER CHILLERS (15681-H)

Related Sections

Basis Guideline: 230051 – “Water Chillers”
230900-H – “Mechanical Systems Controls”
For an explanation of the use of these guidelines, see "Design Guidelines for UMHHC Facilities"

Included as part of this UMHHC guideline section are the details described within the following UM Master Specification sections:
MS236416 – “Centrifugal Water Chillers”

The UM Master Specifications may be used as a reference and/or basis, but the A/E is completely responsible for contract specifications (meeting the intent of the UMHHC Guidelines and Preferred Manufacturers List) that are used in UMHHC projects.

UMH Standard Details:
D 15975 001 “DP Sensor Detail”

General

All UMHHC Inpatient facilities shall be provided with N+1 redundant chillers and supporting equipment/distribution.

Identify capacity and a means of providing an uninterruptible, emergency powered chilled water source in all UMHHC facilities. Design shall incorporate a means of redundancy and not rely on a single emergency powered chiller.

UMHHC encourages chiller manufacturers to bid alternate proposals that optimize chiller selection based on the best value to the hospital. Doing so typically requires that the chillers be pre-purchased by the university. A/E’s are encouraged to utilize the economic analysis format detailed under UM master specification MS236416 – “Centrifugal Water Chillers”.

Provide 5 year parts and labor warranty on all compressors.

Chillers shall be selected on a fouling factor of 0.0001 in the evaporator and 0.00025 in the condenser.

Tube walls shall be 0.025” in the evaporator and 0.035” in the condenser. All tubes shall be 1” size.

A signal from UMH Systems Monitoring to the chiller shall start the chiller and initiate all peripheral equipment (chilled water and condenser water pumps).

UMH prefers the use of differential pressure switches to prove chilled water and condenser water flow to initiate chiller operation. Differential pressure switches shall be piped according to detail D 15975 001 “DP Sensor Detail”

The manufacturer, in conjunction with any other necessary vendors or subcontractors, shall provide two 4-hour training sessions (one classroom & one field training) covering the chiller’s operation and maintenance for UMHHC’s maintenance personnel. Schedule training with Owner through the Architect/Engineer with at least seven (7) days prior notice. Training and start up services are separate functions; training shall not be combined with start up services or commissioning efforts.

Architect/Engineer to specify that a UMHHC representative shall be present at the factory for chiller performance testing (cost of the field trip shall be included as a part of each project).
A/E shall specify the use of an interface panel as required for monitoring points outlined under 230900-H “Mechanical Systems Controls Guideline”.