

## DIVISION 23 HEATING, VENTIATING AND AIR CONDITIONING

### SECTION 23 21 14 – Secondary Chilled Water Piping Systems

#### **PART 1: GENERAL**

##### **1.01 General:**

- A. Avoid 3-1/2 and 5-inch pipe in chilled-water systems; except that 5" chilled water meters are OK.
- B. Schedule 80 nipples and Class 200 Bronze Gate Valves with rising stem. Full Port Ball valves are acceptable: 2" or smaller. Plug Valves: balancing only.
- C. Use only gate valves with rising stem, 200 psi rated, in lines 2 ½" or larger, or use lug mounted butterfly valves of 200 psi or greater rating with stainless trim and rubber seat (bubble tight shut off).

##### **1.02 Chilled Water Systems Serving Secondary Loads:**

- A. Chilled water systems serving secondary loads shall be independently circuited from the primary chilled water system within the building and serve mechanical systems such as standalone computer HVAC, refrigeration equipment, etc.
- B. Each loop shall be provided with independent circulating pump. Pump shall be located in easily accessible areas for service and not above ceiling.
- C. System shall be independently controlled by equipment served.
- D. System shall be provided with check valves to prevent unregulated flow from supply and return.
- E. System shall be provided with appropriate alarm and monitoring points for remote annunciation through FCMS.
- F. As to extent practical all secondary loads shall be consolidated into a minimum number of separate chilled water circulating loops. Aggregation of equipment on such loops shall be approved in advance by Texas State University.

##### **1.03 Cleaning Chill Water System Piping:**

- A. See Section 23 25 00

#### **PART 2: PRODUCTS (NOT USED)**

#### **PART 3: EXECUTION (NOT USED)**

END OF SECTION 23 21 14