

236000 Central Cooling Equipment

Sections Included In This Standard:

- 1.1 General Requirements
- 1.2 Applicable Design Standards for New Plants
- 1.3 Refrigerants
- 1.4 Minimum Efficiencies
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- 1.6 Equipment Access
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- 1.9 Condensers

1.1 GENERAL

- A. Sizes of chillers for new plants are evaluated on need.
- B. Plants shall normally be planned for phased construction. Plant design shall be modular to allow easy expansions.

1.2 APPLICABLE DESIGN STANDARD FOR NEW PLANTS

New plants shall be designed in compliance with latest version of ASHRAE Standard 15.

1.3 REFRIGERANTS

New chiller and chiller replacements shall be capable of using one of the following refrigerants:

- A. HCFC-123
- B. HFC-134A

1.4 MINIMUM EFFICIENCIES

Chillers shall be designed to exceed State minimum efficiencies by at least 10%.

1.5 DESIGN TEMPERATURES

Chillers should be designed for a temperature rise, which is 2 degrees F less than that of the building load, which the chiller plant will serve. Since chiller plants are interconnected, contact PPD Utilities Engineer for current data.

1.6 EQUIPMENT ACCESS

All plant equipment shall be located so as to be accessible for maintenance and replacement. It is unacceptable that demolition be required for removal and replacement of plant equipment.

1.7 CHILLERS

- A. The rupture disk (safety release) on chiller systems must be plumbed to the outdoors.
- B. Chiller piping from the safety/pressure relief valve shall be in accordance with ASHRAE Standard 15.
- C. Acceptable Manufacturers: Carrier, Trane, and York.

1.8 COOLING TOWERS

Cooling towers shall be designed for easy maintenance to insure that they do not become a breeding area for pathogenic bacteria. Cooling towers shall be located on grade (ground level).

1.9 CONDENSERS

All condensers shall be provided with centrifugal gravity separators. New chilled water plants shall be provided with a separator to separate liquid from solids on condenser water. Provide isolation valves for servicing.

END OF SECTION