# SAM HOUSTON STATE UNIVERSITY DIVISION 23 HEATING VENTILATING AND AIR CONDITIONING DESIGN AND CONSTRUCTION STANDARDS

235000 CENTRAL HEATING EQUIP February 2016

### **PART 1 - GENERAL**

## 1.01 Purpose:

A. This standard is intended to provide useful information to the Professional Service Provider (PSP) to establish a basis of design. The responsibility of the engineer is to apply the principles of this section such that the University may achieve a level of quality and consistency in the design and construction of their facilities. Deviations from these guidelines must be justified through LCC analysis and submitted to the University for approval.

### 1.02 References:

## 1.03 Requirements:

- A. Provide shell and tube type heat exchangers with removable tube bundles.
- B. Provide dielectric fittings on heat exchanger water connections.

#### **PART 2 – PRODUCTS**

- 2.00 Manufacturers: RayPac & Cleaver Brooks. A.O. Smith & Lochinvar is not allowed.
- 2.01 Not Used
- 2.02 Water to Water Heat Exchangers:
  - A. Provide ARI 400 certified plate and frame type heat exchanger rated for working pressure of hydronic system.
  - B. Provide with type 304 stainless steel plates and plate hangers. Frame shall be carbon steel with epoxy corrosion resistant finish.
  - C.A combination of condensing and non-condensing boilers shall be used. Base line boiler shall be condensing and trim boiler shall be non-condensing.
  - D. Boilers shall be sized to facilitate N+1 redundancy.

#### **END OF STANDARD**