

When heat in kitchens rejected by refrigeration equipment exceeds 10,551 W (36,000 Btuh), heat recovery systems must be used \1\ unless not /1/ life cycle cost effective.

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### **3-5.16 Variable Refrigerant Flow (VRF) Systems.**

1. For Air Force facilities, do not use VRF systems.
2. For Army facilities, VRF systems are strongly discouraged.
3. For Navy facilities, request for approval from the Facilities Engineering Command (FEC) for the use of VRF systems.

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## **3-6 OTHER HVAC DESIGN CONSIDERATIONS**

### **3-6.1 Latent Load Considerations**

The design must take into account the moisture gain in the space.

### **3-6.2 Reheat**

When reheat is required to control indoor relative humidity, use energy recovery where feasible.

### **3-6.3 Economizer**

\1\ For Army and Air Force projects, water economizer must be used in lieu of air economizers where possible. For Navy projects, use waterside economizers in lieu of airside economizers when applicable and life cycle cost effective. /1/ Where air economizers are used, provide separate dampers for ventilation air and minimum outdoor air requirements. \1\ For Army and Air Force projects, air economizers must not be used in ASHRAE climate zones 1, 2, 3a, and 4a. For Navy projects, air economizers must be designed with controls and alarms to indicate economizer malfunction. /1/

### **3-6.4 Redundant Systems**

When a system failure would result in unusually high repair costs, or replacement of process equipment, or when activities are disrupted that are mission critical, the designer must submit a request for approval to the applicable AHJ in accordance with MIL-STD-3007, to provide redundant HVAC systems. No exemption is required where redundant HVAC systems are specified by other applicable criteria.

### **3-6.5 Humidification**