

### EMERGENCY HEATING FOR PATIENT CARE AREAS

**DESIGN**

#### ISSUE:

NFPA requirement for emergency heating of general patient rooms.

#### BACKGROUND:

VA criteria for emergency heating are based on NFPA 99. NFPA 99 –1996 requires heating equipment to provide heating for operating, recovery, intensive care, coronary care, infection/isolation rooms, emergency treatment spaces, and general patient rooms during emergency. The equipment shall be arranged for either delayed – automatic or manual connection to the alternate power source. This issue is important for patient safety and cost of implementation.

#### DISCUSSION:

NFPA 99 lists the following exceptions where emergency heating of general patient rooms is not required during disruption of the normal power source:

1. The outside design temperature is higher than +20 degrees F (-6.7 degrees C), or
2. The outside design temperature is lower than +20 degrees F (-6.7 degrees C) and a selected room(s) is provided for the needs of all confined patients (then only such room(s) need be heated), or
3. The facility is served by a dual source of normal power.

The dual source of normal power implies power from two different utility sub-stations.

#### RECOMMENDATIONS:

1. Generally, VA medical centers have two separate feeders of normal power source, but from the same utility sub-station. The situation could be different depending upon the medical center. Each medical center or design team needs to look at its specific situation.
2. Determine, if they have any selected room(s) with heating connected to emergency power.
3. NFPA 99 –1996 states the outside design temperature to be based on the 97.5 percent design value shown in Chapter 24 of the ASHRAE Handbook of Fundamentals. No date is shown for this publication. The current 1997 ASHRAE Handbook of Fundamentals does not contain 97.5 percent design values. The closest value listed is 99 percent, which may be used for projects presently under design. The NFPA statement on design temperature is obsolete.

#### FOR ADDITIONAL INFORMATION:

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