



Indian Health Service  
Division of Engineering Services  
2201 Sixth Ave MS RX-24  
Seattle, WA 98121

Date: April 21, 2011

From: Directors  
Division of Engineering Services-Seattle/Dallas  
Authority Having Jurisdiction

Subject: Barrow Hospital National Electrical Code Variance Request

To: Project File

ASNA requests a variance from the National Electrical Code (NEC) for a condition in the Main Emergency Electrical Room. Per the construction documents, the emergency generator flues are to be routed inside of a 2-hour fire resistant rated horizontal chase through the adjacent Main Emergency Electrical Room where the generator switchgear is located. The attached drawings indicate the location of the switchgear and the chase. The location of the chase will intrude slightly upon the dedicated equipment space above the switchgear in violation of the 2008 Edition of the NEC Article 110.26(F) (1) (a). Relocation of the switchgear (including pads and conduit) may not be possible due to required working clearances around all of the equipment in the room. Also, relocation of the equipment may impact the construction schedule as the equipment pads and electrical conduits have already been installed in the floor. Rerouting of the chase through the adjacent room is not possible due to conflicts with HVAC ductwork. ASNA requests this variance for the following reasons:

1. The intrusion into the dedicated equipment space is minimal (12" over the Generator Switchgear and 5" over the Automatic Transfer Switch). Significant overhead access remains.
2. The intent of the dedicated equipment space is not related to life safety. Per the NEC Handbook, the intent is to allow access for bus-ways, conduits, raceways, and cables to enter the equipment. The access for all of these items is through the floor and not overhead. There is very little likelihood that any future expansion or replacement of the switchgear would need to take advantage of the overhead space.
3. Relocation of the equipment may violate other required safety related clearances around the equipment.
4. Relocation of the equipment would result in undesirable delays in the construction schedule.

**Decision:** As the Authority Having Jurisdiction (AHJ), per the IHS Technical Handbook, Chapter 24-2.5, the variance request is approved. This approval is for the specific circumstance described and does not apply to other locations.

/Kenneth Harper/  
Kenneth Harper, PE  
Director

/Tommy Bowman/  
Tommy Bowman, RA  
Director

#### Attachments

cc:  
Alaska Area OEHE Director  
Alaska Area Facility Director  
Barrow Service Unit CEO  
Barrow Service Unit Facility Manager  
Arctic Slope Native Association President/CEO