



Procedure

Temperature & Humidity Control Requirements for Alterations on Elevating Devices

Issue:

Elevating device contractors have raised the issue of retrofitting existing machine rooms with HVAC equipment in order to meet requirement 2.7.9.2 of B44-07.

This requirement has to be met for some alterations that include replacement of controller, changes to the machine room and a change to type of motion control or operation control among others, as per Director's Order 226/07 r1.

The issues that have been raised are:

1. Whether this work is the responsibility of the alteration contractor or the owner of the elevator and if an order is issued by an inspector, which party should it be addressed to.
2. Should the inspector attend the site sometime after the day of the alteration inspection, during the hot summer months and/or cold winter months to determine whether the machine room natural ventilation is adequate in meeting this requirement?

Procedure:

Where Director's Order 226/07-r1 requires conformance to requirement 2.7.9.2 of B44-07 due to an alteration, the inspector shall only issue an order regarding the machine room temperature if the temperature on the day of the inspection is outside of the range specified by the controller manufacturer.

The order shall be issued on a report to the owner of the device and not on the inspection report for the alteration.

If the machine room temperature is found to be outside the required range during a future Periodic inspection, the inspector shall ensure that the requirement regarding machine room temperature was applicable to the device during its installation or alteration and then issue an order to the owner to comply with the code requirement.

Where heating or air-conditioning equipment is provided but is inoperative an order shall be issued requiring the repair or replacement of such equipment.

Risk/Hazard/Safety

Equipment utilizing solid state controls need to be in a temperature and humidity controlled environment to ensure safety and reliability. The ASME A17.1 Handbook also makes reference to building codes requiring temperature and humidity control to ensure continued firefighter's service elevator operation during fires.



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Supporting Documentation

CSA- B44-07

ASME A17.1 Handbook

Special Note

CSA B44-07 - 2.7.9.2 Temperature and Humidity:

Machinery spaces, machine rooms, control spaces, and control rooms shall be provided with natural or mechanical means to keep the ambient air temperature and humidity in the range specified by the elevator equipment manufacturer to ensure safe and normal operation of the elevator. The temperature and humidity range shall be permanently posted in the machine room, control room, control space, or where specified by the equipment manufacturer, in the machinery space.