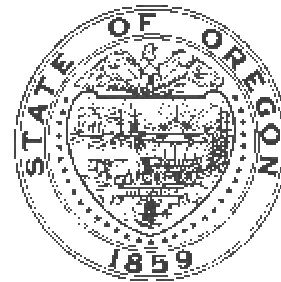


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January 29, 2001

ELEVATOR SAFETY PROGRAM CODE INTERPRETATION

OR 2000-007

Applies to all new & existing installations and alterations.

Subject: Audible Signaling Device
Rule No: ASME A17.1, Rule 211.1
ASME Interp: N/A
Effective: January 29, 2001

Question: *What is the minimum decibel level that should be generated by the audible signaling device as measured from outside the hoistway with the doors closed?*

A17.1, A17.2 or ASME interpretations are silent on *how* the sound level is to be determined and the test procedure to be employed. The code only requires that audible signaling devices have a sound pressure rating of not less than 80-db and not more than 90-db as measured at a distance of 10-ft. (3050-mm). The rule states that the device must be audible in the car and outside the hoistway, but gives no specific sound levels for these locations. It is not clear as to where, and under what conditions the sound level is to be verified.

The intent of the alarm device is to call attention to an emergency involving the elevator. It is reasonable to presume that the sound level outside the hoistway should be loud enough to attract attention. In most cases, the alarm button will be activated when the elevator doors are closed. Many variables will account for how effective an alarm is based on the operating environment for the elevator. Thus, the alarm's effectiveness lies in the inspectors' judgement and will be based on the operating environment. In extreme cases, it may be necessary to provide a supplemental audible or visual device to call attention to the elevator alarm.

1. The audible alarm must be provided with a rating commensurate with code requirements and installed according to the manufacturer's directions.
2. A sound level meter will be used to determine if the alarm is capable of producing its required rating. This may be a subjective test since laboratory testing is normally performed under controlled conditions.
3. A sound measurement will be taken with the doors open and the meter at about 10-ft. (3050-mm) from the sound source. There should not be any barriers between the meter and the source. The inspector will note the measured output from the device and determine if it complies with code and its name plate sound pressure rating.
4. The inspector will note whether the alarm is capable of being heard under normal operating conditions from inside the car and outside the hoistway. The inspector will note the decibel rating in each of those locations on his report.
5. Where it is not reasonably possible to clearly hear the sound from outside the hoistway, the inspector may require a second audible or visual device located outside the hoistway or monitored continuously at a remote location.
6. Sound levels for existing equipment will be as required by ASME A17.3 or the code under which the elevator was installed, whichever is applicable.

James R. Runyan
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