

NORTH CAROLINA DEPARTMENT OF LABOR
OCCUPATIONAL SAFETY AND HEALTH DIVISION
RALEIGH, NORTH CAROLINA

Standards Notice - 9
Revision 1/18/82

TO: OSHA STAFF, FIELD, AND SUPPORT PERSONNEL
SUBJECT: 29 CFR 1910.307, 1910.399, National Electrical Code (NEC) Article 511:
Revision of Standards Notice 9 (Rev. 10/3/75)

I. Discussion

Standards Notice 9 (revision 10/3/75) required that explosimeter measurements be made to prove existence of a Class I Division 1 (classified) location in unventilated pits or depressions below grade in commercial garages. Since the issuance of Standards Notice 9 (revision 10/3/75), some changes have been made to NEC Article 511. This revision to Standards Notice 9 updates and clarifies NC-OSHA's enforcement policy regarding electrically classified hazardous areas in garages and removes the requirement for explosimeter measurements set forth in the 10/3/75 revision of Standards Notice 9.

II. Standards

The 1971 National Electrical Code at 511-2(c) states any pit or depression below floor level shall be considered to be a Class I Division 2 location which shall extend up to said floor level, except that any unventilated pit or depression may be judged by the authority having jurisdiction to be a Class I Division 1 location.

The 1975 National Electrical Code at 511-2(b) states any pit or depression below floor level shall be considered to be a Class I Division 1 location which shall extend up to said floor level, except that any pit or depression in which six air changes per hour are exhausted at the floor level of the pit shall be permitted to be judged by the enforcing agency to be a Class I Division 2 location.

The 1981 National Electrical Code at 511-2(b) is identical to the 1975 NEC.

1910.307 Hazardous (classified) locations. (a) Scope. This section covers the requirements for electric equipment and wiring in locations which are classified depending on the properties of the flammable vapors, liquids or gases, or combustible dusts or fibers which may be present therein and the likelihood that a flammable or combustible concentration or quantity is present. Each room, section or area shall be considered individually in determining its classification. For definitions of these locations, see 1910.399(a).

III. Interpretation

The original standards notice was written to avoid the inconsistency of interpretations which resulted from the wording of the 1971 Code requirements. The 1971 NEC allowed the authority having jurisdiction the flexibility to classify a pit or depression as Class I Division 1; the 1975 NEC took a different approach. The 1975 NEC classified the pits as Class I Division 1 and allowed the authority having jurisdiction the option of Class 1 Division 2 if six air changes per hour exhausted at floor level were provided.

The OSHA electrical standards do not specifically address pits and depressions in commercial garages. However, under 1910.399(a)(24), the standards define Class I Division 1 and 2 locations. The definitions allow the use of ventilation systems to prevent hazardous atmospheres from accumulating. This can permit classifying a pit or depression Class I Division 2 instead of Class I Division 1. The OSHA standards are consistent with the 1975 and 1981 versions of the NEC. Where equipment unacceptable for the appropriate Class I location is installed or used in a garage pit or depression, it should be cited under 1910.307.

In the future, we will follow the guidance provided in the 1975 NEC, 1981 NEC and the OSHA standards. Therefore, Standards Notice 9 (revision 10/3/75) is hereby amended. Explosimeter readings are not required in pits and depressions to prove the need for Class I Division 1 equipment. This approach (not requiring explosimeter readings to prove the need for Class I Division 1 equipment) is consistent with other provisions of the NEC and OSHA standards such as the requirements for Class I Division 1 equipment in spray finishing areas.

The last portion of Standards Notice 9 (revision 10/3/75) discusses the separation of combustible materials from welding and similar sources of ignition. Contrary to the guidance set forth in Standards Notice 9 (revision 10/3/75), OSHA personnel should not depend solely on the absence of motor repairs to indicate an area is not classified. Areas of automotive repair and service facilities where major repair or body and fender work is performed are classified (adjacent areas may be classified) and must be evaluated pursuant to the applicable standards. Normally, parking garages used for parking or storage where no repair work is done except exchange of parts and routine maintenance requiring no use of electrical equipment, open flame, welding or the use of volatile flammable liquids are not classified. NFPA 88A provides construction and protection requirements for parking garages.

Standards Notice 9 (revision 10/3/75) is hereby amended and reissued as Standards Notice 9 (revision 1/18/82).

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