Amendment to Construction Code on Electrical Apparatus for Explosive Gas Atmosphere

1. Purpose

· Electrical apparatus for explosive gas atmosphere shall not be transferred, leased or installed unless they conform to the Construction Code on Electrical Apparatus for Explosive Gas Atmosphere.

· The IEC (International Electrotechnical Commission) establishes International Standard for Electrical Apparatus for Explosive Gas Atmosphere, but there are some matters which are not consistent with existing Japanese Construction Code on Electrical Apparatus for Explosive Gas Atmosphere.

· Therefore the Government of Japan is going to amend the Construction Code on Electrical Apparatus for Explosive Gas Atmosphere as listed below.

2. Contents

(1) Classify the hazardous areas into zones based upon the frequency of the occurrence and duration of an explosive gas atmosphere, as follows.

①zone 0

Place in which an explosive atmosphere consisting of a mixture with air of flammable substances in the form of gas, vapour or mist is present continuously or for long periods or frequently.

②zone1

Place in which an explosive atmosphere consisting of a mixture with air of flammable substances in the form of gas, vapour or mist

is likely to occur in normal operation occasionally.

③zone 2

Place in which an explosive atmosphere consisting of a mixture with air of flammable substances in the form of gas, vapour or mist is not likely to occur in normal operation but , if it does occur , will persist for a short period only.

(2)Add 2 types of electric apparatus for explosive gas atmosphere

Prescribe type of protection "n", and type of protection encapsulation "m" in the Construction Code on Electrical Apparatus for Explosive Gas Atmosphere.

(3) Prescribe types of appropriate electrical apparatus according to the classified areas.

①Type of protection "n" can be installed only in zone 2.

②Type of protection encapsulation "m" shall be either in level of protection "ma" or in level of protection "mb", and "ma" can be installed every zone, and "mb" can be installed in zone 1 and zone2.

③Intrinsic safety "i" shall be either in level of protection "ia" or in level of protection "ib", and "ia" can be installed every zone, and "ib" can be installed in zone 1 and zone2.

3. Date of Enforcement

October 1, 2008