

ANNEX II

ESSENTIAL HEALTH AND SAFETY REQUIREMENTS RELATING TO THE
DESIGN AND CONSTRUCTION OF EQUIPMENT AND PROTECTIVE SYSTEMS
INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES**2. Supplementary requirements in respect of equipment***2.0. Requirements applicable to equipment in equipment-group I**2.0.1. Requirements applicable to equipment category M 1 of equipment-group I*

- 2.0.1.1. Equipment must be so designed and constructed that sources of ignition do not become active, even in the event of rare incidents relating to equipment.

Equipment must be equipped with means of protection such that:

- either, in the event of failure of one means of protection, at least an independent second means provides the requisite level of protection,
- or, the requisite level of protection is ensured in the event of two faults occurring independently of each other.

Where necessary, equipment must be equipped with additional special means of protection.

It must remain functional with an explosive atmosphere present.

- 2.0.1.2. Where necessary, equipment must be so constructed that no dust can penetrate it.

- 2.0.1.3. The surface temperatures of equipment parts must be kept clearly below the ignition temperature of the foreseeable air/dust mixtures in order to prevent the ignition of suspended dust.

- 2.0.1.4. Equipment must be so designed that the opening of equipment parts which may be sources of ignition is possible only under non-active or intrinsically safe conditions. Where it is not possible to render equipment non-active, the manufacturer must affix a warning label to the opening part of the equipment.

If necessary, equipment must be fitted with appropriate additional interlocking systems.

2.0.2. Requirements applicable to equipment category M 2 of equipment-group I

- 2.0.2.1. Equipment must be equipped with means of protection ensuring that sources of ignition do not become active during normal operation, even under more severe operating conditions, in particular those arising from rough handling and changing environmental conditions.

The equipment is intended to be de-energised in the event of an explosive atmosphere.

- 2.0.2.2. Equipment must be so designed that the opening of equipment parts which may be sources of ignition is possible only under non-active conditions or via appropriate interlocking systems. Where it is not possible to render equipment non-active, the manufacturer must affix a warning label to the opening part of the equipment.

- 2.0.2.3. The requirements regarding explosion hazards arising from dust applicable to equipment category M 1 must be applied.