

**ANNEX****UNIFIED INTERPRETATIONS OF THE IBC AND IGC CODES****INTERNATIONAL CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS  
CARRYING DANGEROUS CHEMICALS IN BULK (IBC CODE)****Chapter 8 – Cargo tank venting and gas freeing arrangements****Paragraph 8.3.2 - By-passing of P/V valves**

By-passing of P/V valves is allowed during cargo operations for cargoes which do not require a vapour return system, provided that the vent-line outlet is fitted with flame arresters and is located at the required height above the deck level. However, by-passing of high-velocity valves is not permitted.

**Paragraph 8.3.3.2 – Area classification and selection of electrical equipment**

1 Areas on an open deck, or semi-enclosed spaces on an open deck, within a vertical cylinder of unlimited height and 6 m radius centred upon the centre of the outlet, and within a hemisphere of 6 m radius below the outlet which permit the flow of large volumes of vapour, air or inert gas mixtures during loading/discharging/ballasting are defined as Zone 1.

Permitted electrical equipment: Certified safe type equipment for Zone 1.

2 Areas within 4 m beyond the zone specified in paragraph 1 above are defined as Zone 2.

Permitted electrical equipment:

- .1 certified safe type equipment for Zone 1;
- .2 equipment of a type which ensures the absence of sparks, arcs and of “hot spots” during its normal operation;
- .3 equipment having an enclosure filled with a liquid dielectric, when required by the application, or encapsulated;
- .4 pressured equipment; and
- .5 equipment specifically designed for Zone 2 (for example type “n” protection in accordance with IEC 60079-15).

**INTERNATIONAL CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS  
CARRYING LIQUEFIED GASES IN BULK (IGC CODE)**

**Chapter 8 – Cargo tank vent systems**

**Paragraph 8.2.10 - Area classification and selection of electrical equipment**

1 Areas on an open deck, or semi-enclosed spaces on an open deck, within a vertical cylinder of unlimited height and 6 m radius centred upon the centre of the outlet, and within a hemisphere of 6 m radius below the outlet which permit the flow of large volumes of vapour, air or inert gas mixtures during loading/discharging/ballasting are defined as Zone 1.

Permitted electrical equipment: Certified safe type equipment for Zone 1.

2 Areas within 4 m beyond the zone specified in paragraph 1 above are defined as Zone 2.

Permitted electrical equipment:

- .1 certified safe type equipment for Zone 1;
  - .2 equipment of a type which ensures the absence of sparks, arcs and of “hot spots” during its normal operation;
  - .3 equipment having an enclosure filled with a liquid dielectric, when required by the application, or encapsulated;
  - .4 pressured equipment; and
  - .5 equipment specifically designed for Zone 2 (for example type “n” protection in accordance with IEC 60079-15).
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