

## § 148.72

(e) The quantity of material loaded in each hold or cargo compartment; and

(f) The signature of the master acknowledging that the manifest is correct, and the date of the signature.

### § 148.72 Dangerous cargo manifest; exceptions.

(a) No dangerous cargo manifest is required for—

(1) Shipments by unmanned barge, except on an international voyage; and

(2) Shipments of materials designated as potentially dangerous materials in Table 148.10 of this part.

(b) When a dangerous cargo manifest is required for an unmanned barge on an international voyage, §148.71(d) of this part does not apply, unless the barge has more than one cargo compartment.

### § 148.80 Supervision of cargo transfer.

The master must ensure that cargo transfer operations are supervised by a responsible person as defined in §148.3 of this part.

### § 148.85 Required equipment for confined spaces.

When transporting a material that is listed in Table 148.10 of this part, each vessel, other than an unmanned barge, must have on board the following:

(a) Equipment capable of measuring atmospheric oxygen. At least two members of the crew must be knowledgeable in the use of the equipment, which must be maintained in a condition ready for use and calibrated according to the manufacturer's instructions.

(b) At least two self-contained, pressure-demand-type, air breathing apparatus approved by the Mine Safety and Health Administration (MSHA) or the National Institute for Occupational Safety and Health (NIOSH), each having at least a 30-minute air supply. Each foreign flag vessel must have on board at least two such apparatus that are approved by the flag state administration. The master must ensure that the breathing apparatus is used only by persons trained in its use.

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### § 148.86 Confined space entry.

(a) Except in an emergency, no person may enter a confined space unless that space has been tested to ensure there is sufficient oxygen to support life. If the oxygen content is below 19.5 percent, the space must be ventilated and retested before entry.

(b) In an emergency, a confined space may be entered by a trained person wearing self-contained breathing apparatus, suitable protective clothing as necessary, and a wire rope safety line tended by a trained person outside the hold or in an adjacent space. Emergency entry into a confined space must be supervised by a responsible person as defined in §148.3 of this part.

### § 148.90 Preparations before loading.

Before loading any material listed in Table 148.10 of this part, in bulk on board a vessel, the following conditions must be met:

(a) If a hold previously has contained any material required under Subpart D of this part to be segregated from the material to be loaded, the hold must be thoroughly cleaned of all residue of the previous cargoes.

(b) If the material to be loaded is Class 4.1, 4.2, or 5.1, then all combustible materials must be removed from the hold. Examples of some combustible materials are residue of previous cargoes, loose debris, and dunnage. Permanent wooden battens or sheathing may remain in the hold unless forbidden by Subpart E of this part.

(c) If the material to be loaded is classified as Class 4.3, or is subject to liquefaction, the hold and associated bilge must be as dry as practicable.

### § 148.100 Log book entries.

During the transport in bulk of a material listed in Table 148.10 of this part, the master must keep a record of each temperature measurement and each test for toxic or flammable gases required by this part. The date and time of each measurement and test must be recorded in the vessel's log.

### § 148.110 Procedures followed after unloading.

(a) After a material covered by this part has been unloaded from a vessel, each hold or cargo compartment must