Coast Guard, DHS

§ 111.105–31 Flammable or combustible cargo with a flashpoint below 60 °C (140 °F), carriers of liquid-sulphur or inorganic acid.

(a) Applicability. Each vessel that carries combustible or flammable cargo with a closed-cup flashpoint lower than 60 degrees C (140 degrees F) or liquid sulphur cargo, or inorganic acid cargo must meet the requirements of this section, except:

(1) A vessel carrying bulk liquefied flammable gases as a cargo, cargo residue, or vapor which must meet the requirements of §111.105–32; and

(2) A vessel carrying carbon disulfide must have only intrinsically safe electric equipment in the locations listed in paragraphs (e) through (l) of this section.

(b) Cable location. Electric cable must be as close as practicable to the centerline and must be away from cargo tank openings.

(c) Lighting circuits. An enclosed hazardous space that has explosionproof lighting fixtures must:

1. Have at least two lighting branch circuits;
2. Be arranged so that there is light for relamping any deenergized lighting circuit; and
3. Not have the switch within the space for those spaces containing explosionproof lighting fixtures under paragraphs (g), (i) and (j) of this section.

(d) Submerged cargo pump motors. If a submerged cargo pump motor is in a cargo tank:

1. Low liquid level, motor current, or pump discharge pressure must automatically shutdown power to the motor if the pump loses suction;
2. An audible and visual alarm must be actuated by the shutdown of the motor; and
3. There must be a lockable circuit breaker or lockable switch that disconnects power to the motor.

(e) Cargo Tanks. A cargo tank is a Class I, Division 1 (IEC Zone 0) location that has additional electrical equipment restrictions outlined in section 33 of IEEE 45–1998 and IEC 60092–502 (both incorporated by reference; see 46 CFR 110.10–1). Cargo tanks must not contain any electrical equipment except the following:

1. Intrinsically safe equipment; and
2. Submerged cargo pump motors and their associated cable.

(f) Cargo handling rooms. A cargo handling room must not have any electric cable or other electric equipment, except:

1. Intrinsically safe equipment;
2. Explosionproof lighting fixtures;
3. Cables supplying intrinsically safe equipment in the cargo handling room; and
4. Marine shipboard cables that supply explosionproof lighting fixtures that are in the cargo handling room.

(g) Lighting of cargo handling rooms. Lighting for a cargo handling room except a cargo handling room under paragraph (h) of this section, must be lighted through fixed glass lenses in the bulkhead or overhead. Each fixed glass lens must be wire-inserted glass that is at least 0.25 inches (6.35 mm) thick and arranged to maintain the watertight and gastight integrity of the structure. The fixed glass lens may form a part of...
§ 111.105–32 Bulk liquefied flammable gas and ammonia carriers.

(a) Each vessel that carries bulk liquefied flammable gases or ammonia as a cargo, cargo residue, or vapor must meet the requirements of this section.

(b) As used in this section: