§ 39.20–9 Tank barge liquid overfill protection—B/ALL.

Each cargo tank of a tank barge must have one of the following liquid overfill protection arrangements.

(a) A system meeting the requirements of § 39.20–7 of this part which:
   (1) Includes a self-contained power supply;
   (2) Actuates an alarm and automatic shutdown system at the facility overfill control panel, or on the vessel to be lightered if a lightering operation, 60 seconds before the tank becomes 100 percent liquid full;
   (3) Is able to be checked at the tank for proper operation prior to each loading;
   (4) Consists of components which, individually or in series, will not generate or store a total of more than 1.2 V, 0.1 A, 25 mW, or 20 microjoules;
   (5) Has at least one tank overfill sensor switch with normally closed contacts per cargo tank;
   (6) Has all tank overfill sensor switches connected in series;
   (7) Has interconnecting cabling that meets §111.105–11(b) of this chapter; and
   (8) Has a male plug with a 5 wire, 16 amp connector body meeting IEC 309–1/309–2 which is:
      (i) Configured with pins S2 and R1 for the tank overfill sensor circuit, pin G connected to the cabling shield, and pins N and T3 reserved for an optional

(b) An intrinsically safe overfill control system which:
   (1) Is independent of the cargo gauging device required by §39.20–3(a) of this part;
   (2) Actuates an alarm and automatic shutdown system at the facility overfill control panel, or on the vessel to be lightered if a lightering operation, 60 seconds before the tank becomes 100 percent liquid full;
   (3) Is able to be checked at the tank for proper operation prior to each loading;
   (4) Consists of components which, individually or in series, will not generate or store a total of more than 1.2 V, 0.1 A, 25 mW, or 20 microjoules;
   (5) Has at least one tank overfill sensor switch with normally closed contacts per cargo tank;
   (6) Has all tank overfill sensor switches connected in series;
   (7) Has interconnecting cabling that meets §111.105–11(b) of this chapter; and
   (8) Has a male plug with a 5 wire, 16 amp connector body meeting IEC 309–1/309–2 which is:
      (i) Configured with pins S2 and R1 for the tank overfill sensor circuit, pin G connected to the cabling shield, and pins N and T3 reserved for an optional