Chapter 4.4

Use of fibre-reinforced plastics (FRP) tank-containers including tank swap bodies

NOTE: For portable tanks and UN multiple-element gas containers (MEGCs), see Chapter 4.2; for tank-wagons, demountable tanks, tank-containers and tank swap bodies, with shells made of metallic materials, and battery-wagons and multiple elements gas containers (MEGCs) other than UN MEGCs, see Chapter 4.3; for vacuum-operated waste containers, see Chapter 4.5.

4.4.1 General

The carriage of dangerous substances in fibre-reinforced plastics (FRP) tank-containers, including tank swap bodies, is permitted only when the following conditions are met:

(a) The substance is classified in Class 3, 5.1, 6.1, 6.2, 8 or 9;
(b) The maximum vapour pressure (absolute pressure) at 50 °C of the substance does not exceed 110 kPa (1.1 bar);
(c) The carriage of the substance in metallic tanks is authorized according to 4.3.2.1.1;
(d) The calculation pressure specified for that substance in part 2 of the tank code given in Column (12) of Table A in Chapter 3.2 does not exceed 4 bar (see also 4.3.4.1.1) and,
(e) The tank-container, including tank swap bodies, complies with the provisions of Chapter 6.9 applicable for the carriage of the substance.

4.4.2 Operation

4.4.2.1 The provisions of 4.3.2.1.5 to 4.3.2.2.4, 4.3.2.3.3 to 4.3.2.3.6, 4.3.2.4.1, 4.3.2.4.2, 4.3.4.1 and 4.3.4.2 shall apply.

4.4.2.2 The temperature of the substance carried shall not exceed, at the time of filling, the maximum service temperature indicated on the tank plate referred to in 6.9.6.

4.4.2.3 When applicable to carriage in metallic tanks, the special provisions (TU) of 4.3.5 shall also apply, as indicated in Column (13) of Table A in Chapter 3.2.