

■ 2. Beginning on page 19277, in the third column, and continuing on page 19278, in paragraph (a) of § 178.320, delete the definitions for “sacrificial device” and “shear section”, revise the definition for “cargo tank”, and add a definition for “manufacturer” in alphabetical order, to read as follows:

§ 178.320 General requirements applicable to all DOT-specification cargo tank motor vehicles.

(a) * * *

Cargo tank means a bulk packaging that:

(1) Is a tank intended primarily for the carriage of liquids, gases, solids, or semi-solids and includes appurtenances, reinforcements, fittings, and closures (for *tank*, see §§ 178.337–1, 178.338–1, or 178.345–1, as applicable);

(2) Is permanently attached to or forms a part of a motor vehicle, or is not permanently attached to a motor vehicle but that, by reason of its size, construction, or attachment to a motor vehicle, is loaded or unloaded without being removed from the motor vehicle; and

(3) Is not fabricated under a specification for cylinders, intermediate bulk containers, multi-unit tank car tanks, portable tanks, or tank cars.

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Manufacturer means any person engaged in the manufacture of a DOT specification cargo tank, cargo tank motor vehicle, or cargo tank equipment that forms part of the cargo tank wall. This term includes attaching a cargo tank to a motor vehicle or to a motor vehicle suspension component that involves welding on the cargo tank wall. A manufacturer must register with the Department in accordance with subpart F of part 107 in subpart A of this chapter.

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■ 3. On page 19279, in the first column, revise paragraph (b)(1) of § 178.320, to read as follows:

§ 178.320 General requirements applicable to all DOT-specification cargo tank motor vehicles.

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(b) * * * (1) Each cargo tank or cargo tank motor vehicle design type, including its required accident damage protection device, must be certified to conform to the specification requirements by a Design Certifying Engineer who is registered in accordance with subpart F of part 107 of this title. An accident damage protection device is a rear-end

protection, overturn protection, or piping protection device.

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■ 4. On page 19279, in the first column, revise paragraph (b)(1) of § 178.337–3 to read as follows:

§ 178.337–3 Structural integrity.

* * *

(b) *Static design and construction.* (1) The static design and construction of each cargo tank must be in accordance with Section VIII, Division 1 of the ASME Code (incorporated by reference; see § 171.7 of this subchapter). The cargo tank design must include calculation of stresses generated by design pressure, the weight of lading, the weight of structure supported by the cargo tank wall, and the effect of temperature gradients resulting from lading and ambient temperature extremes. When dissimilar materials are used, their thermal coefficients must be used in calculation of thermal stresses.

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■ 5. On page 19279, in the third column, revise paragraph (b)(2) of § 178.337–9, to read as follows:

§ 178.337–9 Pressure relief devices, piping, valves, hoses, and fittings.

* * *

(b) * * *

(2) Pipe joints must be threaded, welded, or flanged. If threaded pipe is used, the pipe and fittings must be Schedule 80 weight or heavier, except for sacrificial devices. Malleable metal, stainless steel, or ductile iron must be used in the construction of primary valve body parts and fittings used in liquid filling or vapor equalization. Stainless steel may be used for internal components such as shutoff discs and springs except where incompatible with the lading to be transported. Where copper tubing is permitted, joints must be brazed or be of equally strong metal union type. The melting point of the brazing material may not be lower than 538° C (1,000° F). The method of joining tubing may not reduce the strength of the tubing.

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■ 6. On page 19280, in the first column and continuing to the second column, revise paragraphs (c) and (f) of § 178.337–10, to read as follows:

§ 178.337–10 Accident damage protection.

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(c) *Rear-end tank protection.* Rear-end tank protection devices must:

(1) Consist of at least one rear bumper designed to protect the cargo tank and all valves, piping and fittings located at

the rear of the cargo tank from damage that could result in loss of lading in the event of a rear end collision. The bumper design must transmit the force of the collision directly to the chassis of the vehicle. The rear bumper and its attachments to the chassis must be designed to withstand a load equal to twice the weight of the loaded cargo tank motor vehicle and attachments, using a safety factor of four based on the tensile strength of the materials used, with such load being applied horizontally and parallel to the major axis of the cargo tank. The rear bumper dimensions must also meet the requirements of § 393.86 of this title; or

(2) Conform to the requirements of § 178.345–8(d).

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(f) *Shear section.* A shear section or sacrificial device is required for the valves specified in the following locations:

(1) A section that will break under strain must be provided adjacent to or outboard of each valve specified in § 178.337–8(a)(3) and (4).

(2) Each internal self-closing stop valve, excess flow valve, and check valve must be protected by a shear section or other sacrificial device. The sacrificial device must be located in the piping system outboard of the stop valve and within the accident damage protection to prevent any accidental loss of lading. The failure of the sacrificial device must leave the protected lading protection device and its attachment to the cargo tank wall intact and capable of retaining product.

■ 7. On page 19280, in the middle column, and continuing to page 19281, revise paragraphs (b) and (c) of § 178.337–17, to read as follows:

§ 178.337–17 Marking.

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(b) *Name plate.* The following information must be marked on the name plate in accordance with this section:

(1) DOT-specification number MC 331 (DOT MC 331).

(2) Original test date (Orig. Test Date).

(3) MAWP in psig.

(4) Cargo tank design temperature (Design Temp. Range) °F to °F.

(5) Nominal capacity (Water Cap.), in pounds.

(6) Maximum design density of lading (Max. Lading density), in pounds per gallon.

(7) Material specification number—shell (Shell matl. yyy***), where “yyy” is replaced by the alloy designation and “***” is replaced by the alloy type.

(8) Material specification number—heads (Head matl. yyy***), where “yyy”