WAC 296-826-50020 Systems mounted on trucks, semi-trailers and trailers.

Important:

In addition to this section, you need to follow the Appurtenances requirements for all systems, WAC 296-826-50005.

(1) You must make sure each container has all of the following:

(a) Fixed maximum liquid level gauging devices;

(b) Pressure-indicator gauges with a dial graduated from zero to 400 psig;

(c) Either of the following:

(i) Equipped for spray-loading, which fills in vapor space; or

(ii) Has an approved vapor return valve of adequate capacity.

(2) You must provide one or more spring-loaded safety relief valves, or an equivalent type, on all containers, that do all of the following:

(a) Discharges in the following ways:

(i) Away from the container in an upward, unobstructed manner into the atmosphere;

(ii) Not in or beneath a building.

(b) Has raincaps that allow free discharge of the vapor and prevent the entrance of water;

(c) Has a method for draining accumulated condensation;

(d) Has a start to discharge, related to the design pressure of the container, according to Table 6, Safety Valve Start to Discharge Rate;

(e) Are arranged to minimize the possibility of tampering;

(f) Provided, when the pressure setting adjustment is external, with a means of sealing the adjustment;

(g) Has direct communication with the vapor space of the container.

(3) You must make sure shut off valves are not installed between the safety relief valve and the container or system. A shut off valve may be used if arranged so that the required capacity flow is maintained.

EXEMPTION: You are exempt from the requirement not to install the shut off valve between the safety relief valve and the container or systems in the following situations:
1. A three-way valve installed under two safety relief valves, each with:
a. The required rate of discharge; and
b. Installed to allow either of the safety relief valves to be closed off but not at the same time.
2. Two separate relief valves are installed with individual shut off valves.
3. The two shut off valve stems must be mechanically interconnected to allow the full required flow of one safety relief valve at all times.
4. When a safety relief valve manifold that allows:
a. One valve of two or more to be closed off; and
b. The remaining valve or valves will provide not less than the rate of discharge shown on the manifold nameplate.

(4) You must follow additional requirements found in Table 11, Appurtenances for Systems Mounted on Trucks, Semi-Trailers and Trailers.

Table 11
Appurtenances for Systems Mounted on Trucks, Semi-Trailers and Trailers

If you have:	Then make sure they:
All container connections	Are provided with either of the following: 1. Automatic excess flow valves; or

If you have:	Then make sure they:
	2. Quick-closing internal valves that remain closed except during delivery operations. Note: If the control mechanism is provided with a secondary control remote from the delivery connection, then a fusible section (melting point 208°F to 220°F) is required to permit the internal valve to close automatically in case of fire. **Exemption:** Filling connections, safety relief devices, and liquid level and pressure gauge connections are exempt from automatic excess flow valves and quick-closing internal valves.
Filling connections	Prevent back-flow in the event the filling connection breaks with at least one of the following: 1. Automatic back pressure check valves; 2. Excess flow check valves; 3. Quick closing internal valves. **Exemption:** An automatic valve is not required if: 1. The filling and discharge connect to a common opening in the container shell; and 2. The opening is fitted with a quick-closing internal valve.
Nonrecessed container fittings and appurtenances	Are protected against physical damage by one of the following methods: 1. A protected location; 2. The vehicle frame or bumper. A protective housing that meets the following: 1. Is fabricated from material that is compatible with the containers design and construction requirements; 2. Designed to withstand static loadings in any direction equal to twice the weight of the container and attachments when filled using a safety factor of not less than 4, based on the ultimate strength of the material used.

If you have:	Then make sure they:
	Note: Protect nonrecessed container fittings and appurtenances with a weather cover as needed for proper operation of valves and safety relief devices.
Columnar-type gauges	1. Are restricted to stationary storage installations. 2. Are shielded against the direct rays of the sun. 3. Are equipped with all of the following: a. Shut off valves having metallic hand-wheels; b. Excess flow valves; c. Extra heavy glass that is adequately protected with a metal housing applied by the gauge manufacturer.
Hydrostatic relief valves	Are installed between each pair of valves in the liquid ammonia piping or hose.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050. WSR 15-23-086, § 296-826-50020, filed 11/17/15, effective 12/18/15. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 06-10-067, § 296-826-50020, filed 5/2/06, effective 9/1/06.]