

EMERGENCY DISCHARGE CONTROL EQUIPMENT

The new requirements for emergency discharge control equipment on cargo tanks used to transport liquefied compressed gases are keyed to the degree of risk associated with the transportation of specific liquefied compressed gases. The regulation specifies two types of emergency discharge control equipment:

- **Passive Shut-down Equipment**  
Passive shut-down equipment must shut off the flow of product without human intervention within 20 seconds of an unintentional release caused by complete separation of a delivery hose.
- **Off-truck Remote Control Shut-down Equipment**  
Off-truck remote control shut-down equipment must close the internal self-closing stop valve and shut off the engine and auxiliary power upon activation by the person attending the unloading operation.

Each MC 330, MC 331, and non-specification cargo tank transporting liquefied compressed gases must have emergency discharge control equipment as specified in the following chart:

Material	Cargo Tank Capacity	Delivery Service	New Required Emergency Discharge Control Equipment
Compressed gases (Division 2.2 materials) with no subsidiary hazard, excluding anhydrous ammonia	All	All	None
Poison gases (Division 2.3 materials)	All	All	Passive shut-down equipment
Compressed gases (Division 2.2 materials) with a subsidiary hazard, flammable gases (Division 2.1 materials), and anhydrous ammonia	All	Other than metered delivery service	Passive shut-down equipment
Compressed gases (Division 2.2 materials) with a subsidiary hazard, flammable gases (Division 2.1 materials), and anhydrous ammonia	3,500 water gallons or less	Metered delivery service	Off-truck remote shut-down equipment
Compressed gases (Division 2.2 materials) with a subsidiary hazard, flammable gases (Division 2.1 materials), and anhydrous ammonia	Greater than 3,500 water gallons	Metered delivery service	Off-truck remote shut-down equipment and, for obstructed view deliveries where permitted by the regulations, an off-truck remote with a query feature or passive shut-down capability

## COMPLIANCE DATES FOR NEW EMERGENCY DISCHARGE CONTROL EQUIPMENT

The new regulations allow a two-year period for development and testing of emergency discharge control technology.

- After July 1, 2001, newly manufactured MC 331 cargo tank motor vehicles must be equipped with emergency discharge control equipment as specified in the chart.
- MC 330, MC 331, and non-specification cargo tank motor vehicles that are already in service must be retrofitted with required emergency discharge control equipment at their first scheduled pressure test after July 1, 2001. All required retrofits must be complete by July 1, 2006.
- MC 330, MC 331, and non-specification cargo tank motor vehicles in metered delivery service with water capacities greater than 3,500 gallons and used to transport flammable gases (Division 2.1 materials), compressed gases (Division 2.2 materials) with a subsidiary hazard, and anhydrous ammonia must be retrofitted with required emergency discharge control equipment at their first scheduled pressure test after July 1, 2001, or by July 1, 2003, whichever comes first.

## CERTIFICATION OF NEW EMERGENCY DISCHARGE CONTROL EQUIPMENT

The new regulations include specific requirements for certifying the design and installation of emergency discharge control equipment.

- **Passive Shut-down Equipment**  
The design for each passive shut-down system must be certified by a Design Certifying Engineer (DCE). The certification must consider any manufacturing specifications for components used in the system, explain how the system operates, and outline the parameters (such as temperature, pressure, types of product) within which the system is designed to operate. Installation must be performed under the supervision of a Registered Inspector who must certify that the equipment is installed and tested according to the DCE's certification.
- **Off-truck Remote Control Shut-down Equipment**  
Off-truck remote control shut-down equipment must be installed under the supervision of a Registered Inspector, who must certify that the equipment is installed according to the original component manufacturer's specifications.

## ADDITIONAL EMERGENCY DISCHARGE CONTROL EQUIPMENT

After July 1, 1999, all newly manufactured MC 331 cargo tanks used to transport liquefied compressed gases must be equipped with a thermal means of closure for each internal self-closing stop valve that will activate at a temperature of 250 F. All MC 330, MC 331, and non-specification cargo tanks already in service must be retrofitted at the date of their first scheduled leakage test after July 1, 1999.