TRANSPORTATION SAFETY

Transportation of Hazardous Substances on Public Highways

Section 10 (5) of the Dangerous Substances Handling and Storage Law 2003 permits the Petroleum Inspectorate to use international codes for the guidance of the public and industry regarding the transportation of hazardous substances. As such the CPI draws reference to the Code of Federal Regulations CFR 49 Part 177 Carriage by Public Highway.
Section 177.834 states "Any tank, barrel, drum, cylinder or other packaging not permanently attached to a motor vehicle, which contains gases or flammable, combustible, corrosive, poisonous or radioactive material must be secured against movement within the vehicle on which it is being transported."
This requirement is extended to include prevention of relative motion between containers on the vehicle, and the prohibition of smoking, fire or other ignition sources on or about any vehicle being loaded or unloaded.
The carrier's safety obligations are not fulfilled until the cargo tank has been placed upon the consignee's premises and the motive power has been removed from the cargo tank and the premises.

Transportation of Flammable and Combustible liquids on Public Highways

NFPA 385 by inference is the Standard for tank vehicles carrying flammable and combustible liquids such as gasoline and diesel fuel.

Any fuel being transported in furtherance of a commercial enterprise must be transported in a manner that complies with DOT specifications, and will have a specification plate installed which provides the DOT rating of the cargo tank.

A tank with a capacity of 100 Imperial Gallons or more that is permanently attached to the vehicle is defined as a cargo tank under DOT specifications. Authorised cargo tank packages are MC 304, MC 306, MC 307, MC 330, MC 331, DOT 406, DOT 407, and DOT 412.

If the hazardous cargo is being privately transported and the container is not permanently attached to the vehicle, the container is therefore portable and subject to Section 904 of the 1994 Standard Fire Prevention Code, Chapter 7.2 of UN recommendations for the Transportation of Dangerous Goods, and Chapter 6 of NFPA 30. It must be UL listed and properly secured to the vehicle.

Section 910.8 of the Fire Code states any vehicle used for fuel carriage regardless of it's state of emptiness shall be conspicuously marked in 3" letters with product transported and "Flammable."

A fire extinguisher minimum 20lb ABC unit, properly maintained, shall be located on any vehicle transporting fuel.

An intrinsically safe or manual pump, with suction from the top of the tank (if the vehicle tank is used to dispense fuel), shall be located on the vehicle according to the 1994 Standard Fire Prevention Code 901.7.2 with certain exceptions.

Transportation of Gas Cylinders in Passenger Vehicles

The Compressed Gas Association publication PS-7 makes the following recommendations that have been adopted by the Petroleum Inspectorate:

Supplier Responsibility
The supplier should preferably deliver and pick up cylinders.
Cylinders should be secured in a vehicle such that they are not free to move while the vehicle is in motion.
Containers shall be in compliance with all DOT requirements for marking, labelling and placarding.
Inform customers by means of a conspicuous sign in the customer area of the potential hazards of self transportation of cylinders.
Where regulated, ensure the valve outlet is plugged or capped.
Always ensure the valve protective cover is fitted prior to transportation.
Ensure only fully serviceable cylinders with appropriate warning labels are released.
Provide appropriate emergency response information to the customer.

Customer Responsibility
Read warning labels and understand the danger associated with transportation.
Ensure cylinder is properly secured.
Ensure maximum ventilation during transportation and storage.
Do Not Smoke near any cylinders.
Be aware that prolonged heat exposure could result in product release.
Ensure the cylinder duration in the vehicle is minimised.