CASE STUDY: FIRE SAFE RETROFIT VALVE COST EFFECTIVE, WEIGHT SAVING, FLEXIBLE, DOT SP 12412 COMPLIANT

CUSTOMER'S CHALLENGE:

In December of 2005 the U.S. Department of Transportation changed the regulation governing the discharge of liquid hazardous materials from the back of a motor vehicle in Intermediate Bulk Containers (IBCs) and DOT Specification 57 portable tanks. The new special permit, SP 12412, detailed that any IBC or Specification 57 portable tank that contains a liquid hazardous product of Class 3, Packaging Group II, or Packaging Group III with a flash point of less than 100 F must have an automatic thermal activated safety valve installed.

PRECISION IBC'S SOLUTION:

Precision IBC successfully negotiated a 6 month extension to SP 12412 while a solution could be developed that met the special permits requirements. After evaluating different options and discussing with customers, Precision IBC determined that the safest and most cost effective solution to meet the requirements of the special permit was a fire safe valve. The benefit of the fire safe valve is that it can be retrofitted to existing IBC fleets, rental or customer owned. This solution differed markedly from other approaches followed in the industry, the most notable example being the expensive cargo tank.

VALUE GENERATED:

The decision to adopt a retrofit fire safe valve solution as opposed to the more expensive cargo tank solution represented an affordable, cost effective and flexible solution for Precision IBC's customers. The retrofit fire safe valve provides key benefits to the customer not found using other solutions:

- Flexibility The fire safe valve can be retrofitted to all side discharge and most center discharge tanks. Depending on the application and the IBC, the fire safe valve retrofit has the potential to make any IBC a "pump off" tank.
- Affordability The cost of purchasing a fire safe valve that can be added to an existing IBC fleet as opposed to purchasing a dedicated cargo tank represents a tremendous savings for the end user. A fire safe valve is approximately 12x less expensive than a cargo tank.
- Shipping/Handling Due to IBC weight requirements and restrictions while in transit, the heavier the IBC, the less product that can be shipped. Precision IBC's fire safe valve does not represent a significant weight increase as opposed to the heavier cargo

tank which is approximately 150 lbs heavier than a standard tank.

• Safety - The fire safe valve is an automatic emergency shut off valve. Once the fusible link melts the valve shuts off, there is no requirement to manually pull a lever on the tank as there is with the cargo tank. The fire safe valve is installed in-line with the discharge assembly so there are no special bolts that must be torqued down after each discharge — another requirement with the cargo tank.



Drawings provided for visual purposes only.

Actual installation may be different.

