



## After the Rollover...It's Too Late

Any time a tanker truck is involved in an accident, it makes headlines.

An incident occurred in California where a driver was reported to be speeding and lost control of the tanker while rounding a curve. The truck hit a guardrail and overturned. Heat from the ensuing fire caused support beams to collapse onto the roadway below. The driver survived and no other injuries were reported; however, the tractor, trailer, and load of fuel were destroyed. Costs to repair the highway could eventually run into the tens of millions of dollars.

### ***Could something like this happen to your drivers?***

Several factors may have contributed to the accident described, but tanker accidents are a risk for any petroleum marketing operation. Fortunately, there are measures you can take to help prevent rollover accidents. The first and most important is to **hire qualified drivers**. Always conduct background checks on prospective drivers—obtain motor vehicle records, check with past employers, check criminal records, and ask about past experience and training. Also, require drug and alcohol screening.

Driving a truck is a dangerous profession and driving a fuel transport is one of the most dangerous. Improvements in traffic safety have resulted in a decline in fatal crashes involving trucks over the last twenty years according to the National Highway Traffic Safety Administration (NHTSA) and other analysts.<sup>i</sup> But, when accidents do occur, the losses are usually severe. Federated Mutual Insurance Company conducted a two-year study of auto claims made by petroleum and convenience store marketers that showed rollover accidents accounted for nearly 3 percent of the frequency and almost 25 percent of the severity (cost) of these claims.

### ***What are the causes of transport rollover crashes?***

Oftentimes speed—coupled with the centrifugal force of the liquid load—causes a transport to roll. In these accidents, the tractor and trailer is usually totaled and the load of fuel either burns or runs into the nearest drainage area, such as a creek or river. In many cases, the driver does not survive the crash or fire.

Most rollovers are the result of excessive speed and often occur when the transport enters an exit ramp too fast. According to the NHTSA, “traveling too fast for conditions” accounts for 67 percent of large truck crashes.<sup>ii</sup> Rollovers also occur when a driver “overcorrects” after a wheel runs onto the shoulder of the road. In either situation, the center of gravity changes resulting in a rollover.

Some drivers don't realize that the posted speed on an exit ramp is for an automobile. A truck with a high center of gravity must enter the exit ramp at a slower speed than an automobile.

*It's Our Business to Protect Yours®*



This publication is intended to provide general recommendations regarding risk prevention. It is not intended to include all steps or processes necessary to adequately protect you, your business, or your customers. You should always consult your personal attorney and insurance advisor for advice unique to you and your business. © 2010 Federated Mutual Insurance Company. All rights reserved.

Federated Mutual Insurance Company  
Federated Service Insurance Company\*  
Federated Life Insurance Company  
Home Office: 121 East Park Square • Owatonna, Minnesota 55060  
Phone: (507) 455-5200 • www.federatedinsurance.com  
\*Federated Service Insurance Company is not licensed in the states of NH, NJ, RI, and VT.

A large truck may have only one-third of the basic stability of an automobile. It is difficult for a full-sized car to generate the force necessary to roll over. However, it is not difficult for a fuel transport to generate the force needed to roll when the load shifts to the outside of the tank. It becomes easier to roll when the tanker is half empty and with suspension problems

Other common reported causes of transport rollovers are:

- Driver fatigue
- Lack of driving experience for the type of vehicle and trailer
- Driver distraction (cell phones, phantom vehicles, or animals)
- Physical features that decrease a driver's awareness of conditions (air-ride seats and new automatic transmissions)

Regardless of the cause—transport crashes can and will change your business.

### ***What do drivers need to know?***

Driver training and driver awareness are critical in the prevention of rollovers at your business.

- Training drivers on the **dynamics of load surge** is key. Liquid tanks filled to their normal capacity (with 5 percent outage or less) handle essentially the same as a similar truck with a solid load. However, drivers must consider the characteristics of a partially loaded (or unloaded) tank.
- In general, a downloaded tank will be less stable under cornering and braking conditions, a factor drivers need to know for safe driving of the unit. When unloading a transport, always unload the smallest compartment last if there is a possibility that the entire contents may not be unloaded. Start unloading with the center of the transport, unloading the front compartment last.

Training your drivers on the **effects of speed and liquid loads** may reduce the possibility of one of your transports rolling over.

---

<sup>i</sup> National Center for Statistics and Analysis, "An Analysis of Fatal Large Truck Crashes," June 2003.

<sup>ii</sup> National Highway Traffic Safety Administration, "Large-Truck Crash Causation Study: An Initial Overview," August 2006.

To help in the prevention of rollover accidents, Federated Insurance offers a training program to address areas identified as leading causes of transport rollovers. Program material includes a video, "The Point of No Return,"\* and a Leader's Guide. If your business is insured with Federated, your local Federated representative will provide you with a free copy.

\*This program may not be available in all states or for all businesses.