

## **Case Study 7: Fuel transport & delivery / specialized HazMat carrier**

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At the highest level, trucking is divided into for-hire fleets and private fleets. Within that typology, fleets are divided into trucks (sometimes called straight trucks, meaning a single unit vehicle with no trailer) and tractors (the powered part of the common tractor-trailer “semi” commonly seen on roadways). Trailers are also included in fleet composition, counted separately. Within this typology, there are the various industries these fleets serve. Note that this typology is slightly different from the one used by the trucking industry itself, which distinguishes between truckload (TL, the entire load delivered to a single location) and less-than-truckload (LTL, the load delivered to multiple destinations, including but not limited to package delivery).

The idea and importance of safety permeates the trucking industry. Every company is highly aware of the business impact of any negative publicity associated with trucking. This is also reflected in industry trade publications where public image is frequently mentioned and discussed. This is in addition to the obvious legal liability and regulatory impacts surrounding safety. Broad comprehensive safety programs (beyond those required for the commercial driver’s license [CDL]) are a condition of employment in virtually all trucking companies. There is a heavy reliance on packaged/commercial safety programs, but with a wide range of modification, elaboration, and tailoring. In one form or another, the Smith System dominates the industry. Modifications range from adjustments in focus and emphasis, to radical restructuring of the basic Smith System elements. For example, one company has a staff developed extension of the Smith System dealing with close quarter maneuvering which is unique to their business, fleet and operation.

Given the critical importance of safety in image as well as in fact, and the requirement of safety program/training completion as a condition of employment, the possibility of terminating a traffic safety program is not an option. Only incremental adjustments and/or re-training/remedial training elements are conducted.

Regulatory compliance and sound business practice require that incidents, including preventable crashes, be meticulously monitored and tracked in the trucking industry. Metrics often include near misses and behavioral infractions (called triggers in Smith System parlance). The line between individual performance (a human resources issue) and program evaluation (refine or refocus) is blurred and somewhat subjective. The two merge completely with re-training, which combines elements of both individual performance and program evaluation.

While all trucking companies are diligent with regard to safety and safety programs, some are aggressively pro-active, incorporating safety into the business plan as well as corporate culture.

*In this company of 700 employees including 500 CDL drivers, operating 380 tractors and 470 trailer-tankers, all drivers are required to have a CDL with Tanker and HazMat endorsements upon entry / hire. Driver duties are approximately 30% driving with the rest being the loading and unloading activities associated with refined fuel delivery.*

*There are two training paths upon hire, based on two categories of experience. Experienced CDL drivers (1) and CDL "finishing school" graduates (2) i.e., CDL holders with little or no experience. Group 1 receives ten days of OJT. Group 2 receives 30 days of training. There are also two categories of trainers. All are current drivers. Certified driver trainers have demonstrated an aptitude for training and have been Smith System certified. A second group provide basic training on an as needed basis ("spot market"). OJT means five days as a passenger and then driving.*

*Training itself is in two parts. Part 1 consists of Loading, Driving and Delivery. This is the same whether for the 10 day / experienced group or the 30 day finishing school group. OJT protocol is the same as well (five days as a passenger). Note that the driving training includes elements affective the driving of the vehicle that relate to the obvious characteristics of the vehicle (e.g., size) as well as the cargo (liquids slosh, affecting the handling of the vehicle). The driving portion of the training focuses on three themes: Visibility – Space – Time.*

*Part 2 of the training is "safety supervision" and focuses on the three core words introduced in Part 1: Visibility – Space – Time. These come from the Smith System, which is the basis for the entire second part of the training. All drivers complete the full Smith System training, classroom and behind the wheel. The full version of the Smith System focuses on the five keys of defensive driving and consists of 2 hours of classroom training followed by a three part behind the wheel protocol. The behind the wheel segment itself consists of three parts: the familiarization drive, the coaching drive and the commentary drive. These are accomplished in groups of three student plus the instructor. Because of this protocol, actual tanker vehicles cannot be used. (The cabs cannot accommodate more than two, the driver and one passenger). The familiarization drive is to get used to the vehicle. The coaching drive involves the instructor "coaching" on Smith System element the student during the drive. The commentary drive consists of the student commenting on his or her drive in real time. An evaluation follows the three drives. The evaluation is conducted by the student's peers (i.e., the other students). The peer evaluation is followed by a final score by the instructor.*

*Regarding program evaluation, Smith System re-certification is required every two years. This constitutes an evaluation of the instructors and the instruction function of the program. Incidents and "errors" are also tracked. These include near misses, and preventable crashes. This constitutes and evaluation of the effectiveness of the overall program.*

*Another level of evaluation is provided by on-board cameras. Both forward facing and driver facing event cameras are installed in every vehicle. These monitor incidents. As well as Smith System trigger behavior. Videos are reviewed randomly in conjunction with vehicle maintenance, as well as in response to an incident, error or complaint. These cameras are seen*

*as supportive of the drivers and not intrusive. They are frequently used to absolve drivers of alleged violations, 80% to 90% of which are found to be unfounded. (An anecdote involving a DPS charge of cell phone use being overturned by the in-cab camera was provided. Camera evidence was used by both parties.)*

*Regarding the evolution of the current program, the current program was set up in 2010 by the current safety director. The program is based on three critical elements and the associated goals. In-cab and forward facing cameras, full Smith System training, and Safety Supervisor proficiency.*

*There is an explicit linkage to wellness via the DOT requirement in the basic CDL training, the “finishing school” cohort receives it automatically. It is repeated in the training for the experienced trainees. The focus of the wellness elements is general health as related to driving.*

*Regarding the impact of the safety program on personal insurance rates and other benefits of program completion: Employees are advised that their insurance carrier may offer a rate reduction for their Smith certification. In addition, there is a cash bonus program which provides a “substantial” cash reward for those without errors of preventable incidents for six months. Finally, the safety program is an explicit element in setting the company’s liability insurance rates.*

#### Comments & Takeaways

- This training program was set up in 2010 by the current safety director (the interviewee, hence the high level of detail – other companies may have similarly comprehensive programs). The program is based on three critical elements and the associated goals. In-cab and forward facing cameras, full Smith System training, and Safety Supervisor proficiency.
- Beyond the obvious benefits of safe driving, a substantial cash reward is provided to drivers who avoid preventable incidents during a six-month period.
- Employees are told they may experience reduced insurance rates for participating in training; this not only informs but empowers employees.
- The safety program is a key element in setting the company’s liability insurance rates.