RUHL FORENSIC

Loading Issues: New FMCSR Regulations

Correct loading and securement is vital for the safety of the driver and the motoring public.

Effective September 27, 2002 there have been major revisions in the cargo securement section of the Federal Motor Carrier Safety Regulations (FMCSR).

It is recognized that correct loading and securement is vital for the safety of the driver and the motoring public. The result of a load shift or load loss can be severe injuries, lost lives and litigation. The Federal Motor Carrier Safety Administration has updated the cargo securement regulations of the FMCSR that will require motor carriers to change the way they use cargo securement devices. The intent is to prevent certain articles from shifting on or within the vehicle or from falling off the vehicle.

For example, Part 393 - Subpart I, which discusses protection against shifting and falling cargo, has been expanded from Parts 393.100-106, to Parts 393.100-136. In some instances, the changes require the motor carrier to increase the number of tiedowns used to secure certain types of cargo. The securement method for certain types of cargo that was formerly not even discussed is now specifically addressed.

Under the Federal Motor Carrier Safety Regulations, Part 391.13 (Responsibilities of Drivers), Part 392.9 (Inspection of Cargo, Cargo Securement Devices and Systems), and Parts 393.100-136 (Protection Against Shifting or Falling Cargo), both the trucking company and the driver are responsible for the driver's conduct when it comes to safely transporting various types of cargo. The shipper may also share responsibility under certain conditions.

Part 391 states that the motor carrier shall not require or permit a person to drive a commercial motor vehicle (CMV) unless the person can, by reason of experience, training, or both, determine whether the cargo has been properly located, distributed and secured in or on the CMV; and that the driver is familiar with methods and procedures for securing cargo in or on the CMV.

From this, it is apparent that the trucking company must ensure that the driver they hire and assign to a CMV has the necessary knowledge to safely transport the cargo that he is assigned. Commonly, this is accomplished by first interviewing the driver applicant and asking questions relating to his past experience regarding the types of trailers and corresponding cargo that he had been involved with. The applicant driver should also be observed as he initially loads/unloads the cargo that will be assigned to him. Only then should the driver be entrusted with a load.

Improperly loaded cargo may be a contributing factor to a rollover.

A professional driver must be acutely aware that cargo has a propensity to shift or fall. Securing cargo inside a dry or refrigerated van type trailer is a fairly straightforward procedure since the space where the cargo is being carried is enclosed, preventing product from falling off the truck. There are times, however, when additional securing devices, such as blocking, bracing and load locks, must be placed to ensure that the cargo remains stationary during transport. Not using additional securing devices in a less than a full load condition can result in the cargo falling onto the driver when opening the back door to unload.

Flatbed operations present unique challenges because of the wide variety of materials that need to be transported. Some examples are lumber products,

various sizes of plastic and steel pipe, concrete conduit, steel coils of any size, boulders, machinery and any other product that does not lend itself to uniform stacking during the loading process. The driver must have knowledge, over and above the criteria listed in the federal regulations, and certainly more than the non-professional driver when it comes to proper distribution of the cargo on or in the trailer, and adequate securing methods when it comes time to tie down the load for transport.

Under the previous federal regulations a driver had to inspect the cargo when performing a pre-trip inspection and again after the first 25 miles of travel to ensure that the cargo was secure. The new regulations require that the cargo be inspected when performing a pre-trip inspection and again after the first 50 miles of travel. Further inspections are required to be completed after driving for 150 miles or 3 hours, whichever occurs first. The driver must also check the load when he takes a break or has a change of duty. If the load is sealed and the driver is instructed not to open the seal or if the trailer has been loaded in such a manner that makes inspection of the cargo impractical, this part of the inspection is not required per FMCSR 392.9.

Once the product has reached its destination, the driver must take care in unstrapping and unloading the cargo for delivery. Often in cases involving injury or death to the driver or others in the loading/unloading process, carelessness and/or the failure to have gained the necessary knowledge and experience of loading/unloading practices and procedures is the major cause of mishaps.

In one instance, a driver positioned himself next to his trailer while a forklift removed the load; the load slipped and fell on the driver causing serious injury. This incident could have been avoided if the driver had simply stayed clear during the unloading process.

Another example involved a driver who unstrapped his load, not paying attention to the fact that pipes had shifted in transit; they broke loose when the strap was undone and fell on the driver. A simple remedy would have been to reposition the unstable product before unstrapping.

In many cases where a person is critically injured or killed as a result of shifting and/or falling cargo, the accident could have been prevented. Some actions that would reduce deaths and injuries are as simple as:

- Complying with the federal regulations already in place,
- Making sure the driver has the knowledge and experience needed to handle the load,
- Ensuring that the tie downs securing the load are in proper working condition,
- Adhering to established safety procedures within the confines of a warehouse or facility where the product is being loaded or delivered,
- Encouraging drivers and by-standers not involved in the unloading process to stay a safe distance away from the vehicle while it is being unloaded,
- Regular safety inspections of the load during transport.

Understanding and analyzing the causes of a loading accident require specialized knowledge. In addition to our trucking specialists' thorough knowledge of the FMCSR's and custom and practice in the industry, other Ruhl Forensic staff have the ability to analyze the dynamics of the accident and to develop simulations that will explain the results in an understandable manner.

For further information, please contact us by e-mail at ruhl@ruhl.com or by calling the Scottsdale, AZ office at (800) 235-2808.

Visit us on the web at www.ruhl.com.

Ruhl Forensic, Inc.'s staff *provide expertise in: mechanical and electrical engineering, collision investigation and vehicle dynamics, biomechanics and human factors, heavy vehicle driving and mechanical systems, federal regulations and compliance, fleet safety, traffic engineering, construction zone safety, OSHA, graphic visualization, and other areas.*

Our experts provide a continuum of service from initial on-site investigations through research, testing and reconstruction to courtroom testimony and presentation graphics and visualization.

We offer quick response to your investigation needs 24 hours a day. Contact us by calling 1-800-355-7800, 1-800-235-2808, or 1-800-278-4095.

Please feel free to call us with any questions that you may have and we will direct you to the appropriate individual within our firm.