

## *From VLCT PACIF Loss Control*

*Courtesy of Joe Damiata, Manager, Safety and Health, Vermont League of Cities and Towns*

### **Serious Hazard Alert: Multi-Stage Pistons Failing on Tandem Dump Bodies**

This is the time of the year when dump trucks are being used to stockpile sand for the long Vermont winters. In recent weeks, VLCT PACIF has received three separate claims involving dump piston failures in tandem dump trucks.

Our primary concern is the safety of the employee driving the truck. In two instances, the dump pistons broke through the rear of the cab, and the employees narrowly avoided major or fatal injury. Of additional concern are the vehicle repairs costs, which can be more than \$200,000 per truck.

In the most recent case, the piston failed just above the weld of the piston collar (at the base of the multi-stage piston), causing the tilted and fully loaded dump body to free-fall back on the chassis. This extreme motion caused the piston to slam through the rear window of the cab and into the ceiling. Though the truck was not moving, it was unloading on an unlevel (uphill) surface.

The other two failures were caused by the operator *raising the dump body while backing the truck up*. We believe this caused additional motion and stress on the piston assembly, which led to the failure. In both cases the fully loaded dump body slammed down onto the truck frame so forcibly that the drivers were tossed around in the cab. Although neither driver was seriously injured, one truck actually rolled onto its side.

Given the potential for serious or fatal injuries in these cases, we urge you to always follow manufacturer recommendations on maintenance, load capacity, and how the load should be dumped. Please follow these additional recommendations to help prevent this type of incident:

- The driver should **always** wear a seatbelt while inside the truck cab.
- Visually inspect the dump piston before each use. If the piston is leaking, scored or cracked, take the truck out of service until it can be inspected by a qualified mechanic and repaired if needed.

- Release the tailgate before the dump body is raised.
- Dump material on level ground and use heavy machinery such as bulldozers or bucket loaders to stockpile the material.
- If a bulldozer or bucket loader is not available, make sure the truck is completely stopped before dumping the load.
- The operator should never get under a raised dump body.

If you have questions or would like assistance, please feel free to call your CIS Risk Management Consultants:

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