Here’s What Can Happen When Maintenance is Ignored

A terrible incident in Tennessee, in which an equipment operator died from severe burns, shows how important it is to keep equipment inspected and properly maintained.

A 67-year-old machine operator was using an old bulldozer to remove shale at the company’s fill-dirt site when a hydraulic line leading from the engine compartment to the lift cylinder tube assembly (at the front of the bulldozer) burst.

Hot hydraulic fluid sprayed across the hot exhaust manifold and a fire quickly ensued. The operator’s clothing caught fire.

The victim, a 30-year employee of the grading/excavation company, was able to bail out of the burning machine. Seeing him on fire, the company owner rolled the victim on the ground to extinguish the flames. He was transported to hospital, where he died the next day.

The company did not have a written safety program. Training was provided verbally when needed. Workers were also given safety information packets and safety reminders were placed on an office bulletin board. The company did not document its training.

Operators were responsible for inspecting their equipment before each shift. However, no safety checklist was used. Inspections weren’t documented, but repairs were. In this case the last documented repairs made to the machine were an oil change, a new filter and a battery in March 2004.

National Institute for Occupational Safety and Health (NIOSH) investigators made the following recommendations:

- Employers must ensure that mobile construction equipment is inspected daily by a competent person and that defective equipment is reported and removed from service until all needed repairs have been made.

- Employers need to see that safety service notices issued by equipment manufacturers are followed and that necessary modifications are performed. The bulldozer manufacturer issued two service letters indicating that hydraulic hose assemblies running from the engine compartment to the lift cylinders need to be replaced because of the possibility of hose failures. This did not happen.
- Employers need to develop, implement and enforce a comprehensive written safety and health program for all workers. It must include training in hazard recognition and avoidance of unsafe conditions. The victim had not received any formal training from his employer.

NIOSH says operating mobile construction equipment exposes a worker to multiple and complex hazards, and “It cannot be assumed that employees can recognize hazards such as a potential hydraulic hose bursting, to which they could be exposed.”

All employees must be trained in recognizing and avoiding hazards and their employers must assess their abilities to recognize hazards and work safely.