

# FACE THE FACTS

## HAZ ALERT



### HEAVY EQUIPMENT OWNER/OPERATORS DYING ON THE JOB

To prevent heavy equipment injuries:

- Owner/operators should become familiar with and adhere to Kentucky Occupational Safety and Health guidelines.
- Manufacturers' procedures for operation and maintenance of heavy equipment should be followed.
- Avoid potentially hazardous situations. Operators should perform a thorough hazard assessment before work is initiated.

From January through November 2003, five Kentucky heavy equipment owner/operators died while working. Three case studies are described below; the fourth and fifth cases involved a logging truck striking a tree and a tree falling on a backhoe cab.

The first case involved an owner operating a 4x4 fork truck boom to construct a 2-story chimney at a private residence. The owner was lifting a load of bricks from the ground to scaffolding approximately 20 feet high across a slope of about 40°. The boom was top-heavy and the machine rolled to the left down the slope, tipped over and killed the owner/operator. The owner/operator was not wearing a safety belt. The machine was equipped with a roll over protective structure (ROPS).

A bulldozer owner/operator died after drowning in the cab of his machine in the second fatal incident. The owner/operator was repairing a pond leak and digging a trench approximately 17 feet deep and 12 feet wide through an earthen dam. The pond was not drained and the top of the dam partially collapsed, spilling water and sludge into the trench. The water and sludge forced out a bulldozer window and entered the cab.



There was no keyway excavated in the outside trench wall to allow water to drain away. The trench and bulldozer filled with water and sludge and the owner/operator drowned in the cab.

A third owner/operator died when thrown from a bulldozer track. The owner/operator was performing a grading operation for a private owner and had just arrived at the job site. The bulldozer would not start so the owner sprayed ether into the air chamber but was unable to start the engine. The owner elicited the help of his laborer, who lived nearby, to help start the engine. After several attempts to start the machine failed, the laborer sprayed ether into the chamber again. When the owner pushed the start button, the bulldozer jumped backwards and began moving. The owner was thrown from the track and run over by the bulldozer.

**OWNER/OPERATORS SHOULD ADOPT AND FOLLOW OCCUPATIONAL SAFETY AND HEALTH GUIDELINES.**

Owner/operators should become familiar with and adhere to Kentucky Occupational Safety and Health guidelines.

Owner/ operators should take general operator training from a factory representative or a distributor.

While compliance with Federal and Kentucky Occupational Safety and Health Standards is required for all employers with one or more employees, OSH rules should be followed by owner/operators as well. Applicable standards relating to the fatalities include protection of employees in excavations (29 CFR 1926.652(a)), protection from accumulating water (29 CFR 1926.651(h)), sloping of excavations (29 CFR 1926.652(b)), and classification of soil before excavation (29 CFR 1926.652).

Don't place yourself in a potentially hazardous situation. Operators should perform a thorough hazard assessment before work is initiated.

Pertaining to working on slopes, minimum performance criteria for rollover protective structures for loaders and dozers (29 CFR 1926.1001(b)(1)) state that operation of these off-road vehicles be "between 0 and 10 mph in hard clay where rollover would be limited to a maximum roll angle of 360° down a slope of 30° maximum." Specific to forklifts, powered industrial trucks are required by law to have loads that are stable and secure, and operators are not allowed close to elevated areas in accordance with 29 CFR 1926.602(c)(1)(vi).

A thorough hazard assessment should be performed and safe work practices established before any work has been initiated. Recognize and avoid unsafe conditions [29 CFR 1926.21 (b)(2)] and have a Competent Person conduct frequent worksite inspections [1926.20(b)(2)].

A hazard assessment should address the planning of escape routes, calculation of slope effects on planned equipment use, draining of water sources to appropriate levels, and soil composition tests if necessary. In addition, a visual inspection of the machine and an operational test of machine systems should be made prior to the start of work.

Safety practices should include the use of a roll over protective structure (ROPS) on heavy equipment and wearing of safety belts [29 CFR 1926.28(a)]. Heavy equipment should be started from the cab with the safety belt fastened. Ensure that equipment is in good working order and that equipment is in the "park" position before beginning work.

Manufacturers' procedures for operation and maintenance of heavy equipment should be followed.

Manufacturer specifications should always be followed during operation and maintenance of machines and periodic maintenance should be performed at intervals prescribed by the manufacturer. Owner/operators should periodically contact dealers or manufacturers as to whether any bulletins have been issued on their machines.

For more information, contact:

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