



# Indiana Fire Captain Pinned - LOTO

## 5 minute Lesson Plan for Fire & EMS

According to FirefighterCloseCalls.com Line of Duty Deaths notices of November 6, 2010:

*An Indiana Fire Captain suffered fatal head injuries after the fire department vehicle he was maintaining rolled and pinned him against a wall at the firehouse. According to reports the Captain and one other person were standing in front of the fire truck as work was being done on its steering mechanism. At one point in order to turn the steering wheel so that work could continue on the mechanism, a person inside the vehicle turned the key in the ignition, expecting it to go from the locked position to the first position and release the steering. Instead, the key and ignition were already in the first position and turning it caused the engine to turn and the truck to lunge forward, trapping the Captain and the other person between it and the wall.*

*The driver backed away and jumped out of the truck to go assist the two men, but when he did, the truck lunged forward again, trapping only the Captain and killing him instantly. The incident occurred around 1830 on a Friday evening.*

One of the issues surrounding this incident will be the failure to employ Lock Out / Tag Out (LOTO). Typically, LOTO is thought of as a facility maintenance concern. For example, when changing an electrical fixture in the firehouse, turn off and put a lock or tag on the circuit breaker. Often this type of work is not performed by firefighters and the Department has not realized the need for a LOTO Program for its members. LOTO is required whenever a worker, or any part of the worker, enters the operating point of equipment that contains energy. Energy is more than just electricity. It also includes air or water pressure, potential energy caused by raising an object (such as the cab of a fire truck), heat, and the mechanical energy of moving parts. Under OSHA 1910.147, LOTO must be employed when performing maintenance, installation, inspection, repair, and other tasks. Many non-emergency job (house) duties performed by firefighters fall under these criteria. Working on apparatus presents many hazards from stored energy sources (batteries, capacitors, heat, air pressure, water pressure, raised cabs, and moving parts, etc.) which must be identified. Effective energy release and control strategies would then be developed. NJPEOSHA requires this be in writing, in the form of a Control of Hazardous Energy (LOTO) Program. Some of the major components of a LOTO Program include:

- List the tasks that expose workers to the unexpected start-up or release of hazardous energy
  - Inspecting, maintenance, or repairs of fire apparatus
  - Changing blades, bits, wheels, etc. on saws, drills, cutters, etc.
- List the employees who perform these tasks (Authorized Workers) and employees who are affected when the equipment is off (Affected Workers)
- List the locks, tags, and other devices that are available to Authorized Workers
- Develop step-by-step shut-down and start-up procedures for each piece, or group of similar, equipment
  - 1910.147 provides a generic guide that can be used as a model
- Develop procedures for special circumstances or permitted exceptions
  - Elevator rescue, automotive extrication
  - Cord and plug equipment; changing wheel on station bench grinder
  - Gas powered equipment; changing chain on chainsaw
  - LOTO on vehicles without keys

*This lesson plan is intended for general information purposes only. It should not be construed as legal advice or legal opinion regarding any specific or factual situation. Always follow your organization's policies and procedures as presented by your manager or supervisor. For further information regarding this bulletin, please contact your Safety Director at 877.398.3046.*