



## Elevator Industry Bulletin

### Safety Alert!

**Many 1970s-era Dover elevators use an unstable and unsafe shut-off valve.**

Hydraulic Supply Shutoff Valves (“HSSV Valves”) that function as the manual shut-off valve for many 1970’s era elevators are unstable and pose a safety hazard to those who work on hydraulic elevators. Exact numbers are not available, but we estimate that more than 400 HSSV Valves may have been installed in Washington in the 1970’s.

#### How to tell if you have a hydraulic supply shut-off valve:

HSSV Valves look like this. ►

They are located in the “pit,” at the base of the elevator shaft and are commonly referred to as “knock-style cut off valves” because technicians typically strike them with a hammer in order to loosen the valves.



#### What’s the danger?

If an HSSV Valve is loosened too much, then the stem and hydraulic fluid will be released, causing a loss of pressure, and that loss of pressure will cause the elevator car to fall. Anyone working in the elevator shaft would almost certainly be killed by the falling car, unless proper safety precautions were taken.

#### What’s required now if you have a HSSV Valve:

If your L&I elevator inspector finds an HSSV valve, you will be directed to replace it within 90 days, as required by current code: (RCW 70.87.120 3a) For this reason, if you know you have this type of valve, L&I encourages you to take the initiative and get the work done right away, to avoid receiving a citation in your next inspection. Note: Current code permits you to replace it with a rupture valve with a self-contained shut-off valve.

**If you are ordering a replacement for an HSSV Valve but need to work on your elevator shaft right away, take these precautions to prevent the elevator car from falling:**

- Placing pipe stands in the coil springs at the bottom of the elevator shaft.
- or*
- Securing the elevator car with rail clamps.
- or*
- Using a similar method required by your company’s safety program.

## **Background on the**

Hydraulic Supply Shutoff Valve problem:

- **On May 11, 2009 an employee of an elevator manufacturing company, was killed.** The company subsequently ordered that its employees “should under no circumstances work on this type of valve without the elevator being secured on pipe stands or suspended, and the oil line being relieved of pressure. This includes removal of the U-bolt clamp. No U-bolt clamp should be removed without landing or suspending the car ... putting a wrench to the valve in an attempt to close it can cause the valve to break and the complete loss of pressure. “
- **On Dec. 8, 2009, the Florida Elevator Safety Technical Advisory Council** issued a technical advisory stating that HSSV Valves “may pose a significant risk” and advised that “when replacing line valves and working in the pit, follow safety precautions to secure elevators and equipment from falling and minimize personal risk when performing repair and replacement of parts that may contribute to a sudden loss of pressure in the line.” This eight-member council provides technical assistance to the state’s Elevator Safety Bureau.
- **On July 1, 1963, the state of Washington** adopted standards for elevator inspection promulgated by the American Society of Mechanical Engineers (“ASME”). The standards, mandated by A17.1 2005, Rule 8.6.1.2.2 that “where a defective part directly affecting the safety of the operation is identified, the equipment shall be taken out of service until the defective part has been adjusted, repaired, or replaced.” This requires you, if you are aware of this condition, to take steps to replace these valves, including purchasing an alteration permit.

## **Need more information?**

Please call Jack Day, Elevator Program manager, at 360-902-6128 or toll free at 800-705-1411 (in Washington State only) or e-mail to [DAYL235@LNI.wa.gov](mailto:DAYL235@LNI.wa.gov).