

# INDUSTRY BULLETIN

## for Florida's Elevator Industry

SUBJECT: Pit Shut Off Valve Dangers

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**This bulletin is provided to aid in compliance with Florida law, and is not intended as legal advice. While care has been taken to ensure its accuracy, in the event of any conflict the actual statute or administrative rule will control.**

The Bureau of Elevator Safety ("the Bureau") believes that Hydraulic Supply Shutoff Valves ("HSSV Valves"), which function as the pit manual shut-off valves for many 1970's era elevators, are unstable and pose a safety hazard to those who work on hydraulic elevators. HSSV Valves are located at the base of an 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. However, 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 lead to the elevator car falling. Anyone working in the elevator shaft will almost certainly be killed by the falling car unless proper safety precautions are taken. While exact numbers for Florida are not available at this time, as many as 4,000 HSSV Valves may have been installed in the 1970's and it is estimated that at least 200 are still in service.

The Bureau's conclusion regarding the danger HSSV Valves pose to those working in elevator shafts is corroborated by others. For instance, the eight-member Florida Elevator Safety Technical Advisory Council ("the Council") is required by Florida Law to provide technical assistance to the Bureau "in support of protecting the health, safety, and welfare of the public . . ." In a technical advisory issued on December 8, 2009, the Council stated that HSSV Valves "may pose a significant risk" and advised that "[w]hen 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."

Moreover, Thyssen-Krupp issued an alert earlier this year mandating 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." The alert also stated that "[s]imply putting a wrench to the valve in an attempt to close it can cause the valve to break and the complete loss of pressure."

Also, Florida has adopted standards for elevator inspection promulgated by the American Society of Mechanical Engineers ("ASME") which has mandated through 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." Because of the foregoing, several jurisdictions have already required that HSSV Valves be replaced.

Accordingly, the Bureau urges every certified elevator inspector, certified elevator technician, and elevator helper to take precautions while constructing, installing, inspecting, maintaining, or repairing any elevator. At a minimum, those precautions should include: (a) securing the elevator car through the use of pipe stands placed in the coil springs at the bottom of the elevator shaft; (b) securing the elevator car through the use of rail clamps; or (c) with any similar means as provided in your company safety program.

This Advisory is part of the Bureau's effort to notify every certified elevator inspector, certified elevator technician, and elevator helper of the danger posed by HSSV Valves. In addition, the Bureau is giving strong consideration to initiating standard rulemaking proceedings in order to adopt a rule requiring the immediate replacement of HSSV Valves.

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