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Wichita-Sedgwick County Metropolitan Area Building and Construction Department

MABCD DIRECTIVE #15-E7 (ELEVATOR DIRECTIVE)

ISSUE: 1- Year Safety Tests on Hydraulic Elevators

EFFECTIVE DATE: Immediately

The Following procedures which are outlined in ASME A17.2 as required by ASME A17.1 shall be followed when performing 1 year safety tests on Hydraulic Elevators. These procedures are not all inclusive, can be performed in any order and other tests may need to be performed when visual evidence warrants more action.

*** Note these tests are performed with no load in the car.**

Pressure Relief Valve Test – item 2.31.2.2 - Req 8.6.5.14.1

- Have the manual shutoff valve closed to verify that the relief valve will bypass the full output at a minimum of 110% and a maximum of less than 150% of working pressure, prior to pressurizing entire system. (This will alleviate any unnecessary damage caused by over pressurizing the system due to a malfunctioning relief valve or other issues).
- Have the manual shutoff valve reopened and pressurize the entire system to verify that the system will relieve at the same rate as previously noted.
- If the Relief valve needs to be adjusted make certain that it is resealed and a test tag has been installed per (UBTC).

Pressure Test of Flexible Hose and Fittings – item 2.32.2.2 - Req 8.6.5.14.2

- While the system is being fully pressurized, operate at relief pressure for 30 seconds while observing hoses and fittings.
- Note any leakage, bulging, distortion or other signs of damage or weakness.
- Verify that the Flexible Hose Meets the requirements for installation from 1971 – 1995 (replacement every 6 years) or requirements for installation after 1996 (no replacement date but must have an overspeed valve).
- Hose must be SAE type 100R2 in either case. And be capable of 5 times the working pressure.

Anti-Creep Device Operation - items 2.32.1.2 and 3.7.1.2

Have the manual lowering valve opened slowly; with the elevator parked at the floor and the doors open.

- Verify that the elevator will be maintained within (1 in.) of the landing (3 in. for pre 1978 elevators).
- Verify that the following safety devices will not prevent anti-creep.
 - a. In car emergency stop switch and in car stop switch.
 - b. Broken rope, tape or chain switches.
 - c. Hoistway door interlocks.
 - d. Car gate contacts.
 - e. Hinged car platform sill electric contacts.
- For Class C2 Freight elevators, maximum load must be placed on the car to verify the system will hold and level this load.

Slack Rope Device- item 3.31.2 - Req 8.6.5.14.6

- Have the safeties set, cables should be slack.
- Attempt to run car up, it should not run.
- Have safety switches reset and run car by normal means.

Plunger Gripper (if installed) – item 5.15.3.2 – Req 8.6.5.16.4

- Place the rated load in the car and run the car in the down direction.
- Actuate the gripper by means of over speeding and any additional alternate means.
- All means to actuate must be verified.

Other Tests That May be performed- (at the discretion of the inspector)

- Overspeed Valve Test (if installed) - item 5.15.3.2 – Req 8.6.5.16.5
- Low Oil Protection Test (if a pump run timer is used)
- Underground Cylinder Leak Test – item 2.36.2.2 – Req 8.6.5.14.2

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