Hydraulic Valve Replacement and Testing

Issue:
This interpretation is to clarify the testing requirements for newly replaced hydraulic control valves.

Interpretation, Policy or Procedure:
Replacement of any hydraulic control valve, whether make or model is same or different than the original, is a Minor ‘B’ alteration per Director’s Order 226/07 r1, after which speed tests shall be performed as follows:

1. Where a control valve is replaced with a valve of a different make and model, the speed of the car shall be verified with rated load and with no load, in both directions.

2. Where a control valve is replaced with a valve of the same make and model, but the no load speed in the down direction of the original valve cannot be determined, the speed of the car shall also be verified with rated load, and with no load, in both directions.

3. Where a control valve is replaced with a valve of the same make and model, and the no load speed in the down direction is set to the same value as the original valve, the speed of the car may be verified with no load in both directions.

Supporting Documentation
CSA-B44-07 requirement 8.10.3.3.2(o);

8.10.3.3.2 (o) Where an existing control valve is replaced with a valve of a different type, or where relief or check valves or the supply piping and fittings are replaced (8.7.3.24), tests shall be performed as specified in 8.10.3.2.2(i)*, (u)*, (v)*, and (y)*; and 8.10.3.2.3(cc).

8.10.3.2.3(cc) Car Speed [3.28.1(k)]. The speed of the car shall be verified with rated load and with no load, in both directions. (Item 3.30)

Risk/Hazard/Safety
If the full load speed in the down direction is not set correctly, the elevator may strike its buffers and in combination with the failure of a stopping means or in case of a reduced runby, injuries to riders may occur.

*references have been updated to reflect intended testing requirements – not as shown in B44.