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DEPARTMENT OF LABOR AND EMPLOYMENT  
Division of Oil and Public Safety  
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January 23, 2014

BRIAN JONGEWAARD  
THYSSENKRUPP ELEVATOR CORP.  
7367 S. REVERE PKWY. UNIT # 2-A  
CENTENNIAL, CO 80112

**RE: Approval of Alternate Materials and Methods Request  
ThyssenKrupp Elevator Endura MRL Hydraulic Elevator (TAC 32 H-MRL)**

The Division of Oil and Public Safety (OPS) has reviewed the Alternate Materials and Methods Request (AMMR) submitted by Thyssenkrupp Elevator Corp (TKE) on January 8, 2014. This AMMR requests approval from OPS to install the TAC 32 H-MRL, also known as Endura-MRL "Machine-room-less Hydraulic Elevator" in Colorado. The currently adopted conveyance code, ASME A17.1 2007, does not recognize the use of Electrically Assisted Shutoff Valves, Lowering Valves, Pressure Gauge Fittings and Pressure Switches that are to be installed in conjunction with this equipment. Within this AMMR, TKE included a Certificate of Conformance from Liftinstituut B.V. who, acting in accordance with the requirements of ASME A17.7, has issued a Certificate of Conformance for this equipment. OPS approves this AMMR contingent upon the following conditions being met:

- The type-2 Security Key for the Circuit Breaker Panel and the type-1 Security key for the Service Panel must be made available to authorized elevator personnel at all times.
- 2-Hour Fire Rated Construction must surround the controller in accordance with locally adopted Building Codes.
- A water sensor, as described in the manufacturer's specifications, shall be located not more than 12 inches from the floor. The water sensor shall be tested and inspected annually to ensure that upon activation, the requirements of ASME A17.1 2007, Sections, 3.27.1 through 3.27.4 are maintained.
- A drain or sump pump shall be provided in accordance with ASME A17.1 2007, Section 2.2.2.5
- Temperature and humidity ranges shall be posted in the machinery space, control room or control space and provisions to maintain such operating limits shall be provided at the time of installation.

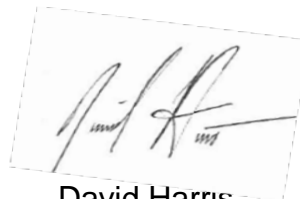
- The power unit in the pit shall be provided with not less than 2 "D" Series Disposable Stationary Industrial Tank Breathers with Active Charcoal Filters. The filters shall be replaced at least every 5-years, regardless of equipment run count. The replacement of the filters with anything other than "Air Sentry" model filters as described above shall be approved by the conveyance manufacturer prior to installation.
- The Inspectors Guide and the associated Maintenance Control Program (MCP) shall be maintained in the machinery room or machinery space for the life of the equipment.
- TKE must deliver a copy of this AMMR approval to each conveyance owner before the acceptance inspection is performed.
- A copy of this approval letter shall be posted in each elevator machinery room or machinery space during installation activities and shall become part of the Maintenance Control Program for the life of the equipment.
- TKE shall obtain the approval of an Approved Authority Having Jurisdiction which may include more stringent requirements than OPS.

If you agree with the conditions included in this approval letter, indicate by completing the signature portion below and returning the letter to OPS. **This approval will become effective upon receipt, by OPS, of your written acceptance of all the above conditions.**

Please contact OPS if you have any questions.



Greg Johnson  
Conveyance Program Manager



David Harris  
Conveyance Technical Specialist

I hereby agree with all of the conditions in the above. I understand that any modification to these conditions may be made only with the written consent of the OPS.

ThyssenKrupp Elevator Corp.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title