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ELEVATOR SAFETY DIVISION

BEFORE THE ELEVATOR SAFETY BOARD
STATE OF ARKANSAS

IN RE: KONE INC.

ORDER

This matter comes before the Elevator Safety Board on Thursday, September 19, 2013. KONE, Inc. ("Petitioner") was represented by Randy Norman, Branch Manager and Brian Pounders. The Arkansas Department of Labor was represented by counsel, Daniel Faulkner, and by Larry Smothers, Chief Elevator Inspector. The Board makes the following findings of fact and conclusions of law.

FINDINGS OF FACT:

1. On May 19, 2011, an Order was entered by this Board granting a variance to allow use of 8mm diameter steel wire suspension ropes and 6mm diameter governor cables on one (1) KONE traction elevator to be located at First Baptist Church (Russellville, AR) 72802 and two (2) KONE traction elevators to be located at UALR Honors Housing.
2. On September 15, 2011 an Order was entered by this Board granting a variance for use of 8mm diameter steel wire suspension ropes and 6mm diameter governor cables on five (5) additional KONE conveyances to be installed at Southwest Power Pool, UALR Nanotechnology, Lisa Academy, and McCain Mall.
3. On September 15, 2011, Petitioner received a blanket variance to allow use of 8mm diameter steel wire suspension ropes and 6mm diameter governor cables for a period of one (1) year. This variance expired September 15, 2012.

4. On September 4, 2013, Petitioner requested that the expired September 15, 2011 variance to allow use of 8mm diameter steel wire suspension ropes and 6mm diameter governor cables be reinstated for a period of one (1) year.

5. Larry Smothers (Smothers), Chief Elevator Inspector, Arkansas Department of Labor, made a written report to the board and recommended denial of the variance.

STEEL WIRE ROPES

6. On June 1, 2008, the board adopted ASME A17.1-2007 for new construction. Standard 2.20.4 provides:

2.20.4 Minimum Number and Diameter of Suspension Ropes. The minimum number of hoisting ropes used shall be three for traction elevators and two for drum-type elevators.

Where a car counterweight is used, the number of counterweight ropes used shall be not less than two

The term "diameter" when used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of ropes shall not be less than 0.56 mm (0.024 in.) in diameter.

7. Petitioner requests approval for the use of small diameter steel wire ropes (8mm) based on ASME A17.1-2007 Preface and Section 1.2 which provides general discretion to jurisdictions to accommodate new technologies based upon technical documentation or physical performance verification; that the ASME A17.1-2010 allows these types of ropes; and additional safety data submitted to the Board.

GOVERNOR CABLES

8. On June 1, 2008, the board adopted ASME A17.1-2007 for new construction.

Standard 2.18.5 provides:

2.18.5 Governor Ropes

2.18.5.1 Material and Factor of Safety. Governor ropes shall be of iron, steel, monel metal, phosphor bronze, or stainless steel. They shall be of a regular-lay construction and not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5. Tiller-rope construction shall not be used.

9. Petitioner requests approval for the use of small diameter governor cables (6mm) based on ASME A17.1-2007 Preface and Section 1.2 which provides general discretion to jurisdictions to accommodate new technologies based upon technical documentation or physical performance verification; that the ASME A17.1-2010 allows these types of cables; and additional safety data submitted to the Board.

CONCLUSIONS OF LAW:

1. Ark. Code Ann. § 20-24-106(d) provides that “[t]he board shall also have the power in any particular case to grant exceptions and variations which shall only be granted where it is clearly evident that they are necessary in order to prevent undue hardship or where the existing conditions prevent compliance with the literal requirements of the rules and regulations. In no case shall any exception or variation be granted unless, in the opinion of the board, reasonable safety will be secured thereby.”

2. In the present case, the Board concludes that an undue hardship exists due to the fact that new unadopted Codes (A17.1-2010 and A17.6-2010) allow the size of ropes and

governor cables in question; and that literal compliance would prohibit the operation of these devices. The Board finds that reasonable safety will be secured since these ropes and cables are permitted under newer Codes; Petitioner's documentation shows appropriate levels of equivalent safety; and Smothers' testimony before the Board.

THEREFORE, the Board grants the KONE, Inc. request for a blanket variance to allow the sale and installation of conveyances using the above-referenced 6mm diameter governor cables and 8mm diameter steel wire ropes until September 19, 2014.

IT IS SO ORDERED.

ELEVATOR SAFETY BOARD
STATE OF ARKANSAS

By: 
Ricky Belk, Chairman

DATE: 9.24.13

Approved:
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