

BEFORE THE ELEVATOR SAFETY BOARD  
STATE OF ARKANSAS

IN RE: KONE INC. ON BEHALF OF  
FIRST BAPTIST CHURCH, RUSSELLVILLE, AR AND  
UALR HONORS HOUSING, LITTLE ROCK, AR

**ORDER**

This matter came before the Elevator Safety Board on Thursday, February 24, 2011. KONE, Inc. ("Petitioner") was represented by Chris Newlin ("Newlin"), Superintendent Service, 3721 Harold Street, North Little Rock, AR 72118. 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 January 20, 2011, Petitioner requested a variance to allow use of 6mm diameter and 8mm diameter steel wire ropes on KONE traction elevator to be located at First Baptist Church, 200 South Denver Avenue, Russellville, AR 72802. This request was submitted by Branch Manager Ron Emerson. This forty-one (41) page request, including exhibits A-D is attached as Petitioner's Exhibit #1.
2. After waiving the twenty (20) day notice requirement of Regulation 010.005-009(G)(3), Newlin appeared at the January 20, 2011 Board meeting. Newlin also waived this notice requirement at this meeting.
3. Larry Smothers (Smothers), Chief Elevator Inspector, Arkansas Department of Labor, made an oral report to the board during the January 20, 2011 meeting and recommended denial of the variance since the rope diameters do not meet the requirements of ASME A17.1-

2007. Newlin agreed this oral recommendation sufficient to meet the requirements of Regulation 010.005-016(B)(3).

4. Newlin briefly testified before the Board, orally amending the variance request to include two (2) KONE traction elevators to be located at UALR Honors Housing, 5520 West 30th Street, Little Rock, AR 72204. After this brief appearance, the Board informed Newlin that it no longer had a quorum to do business due to Reed Myers recusing himself in an earlier hearing for a similar variance request by ThyssenKrupp.

5. Petitioner appeared at a special Board meeting February 24, 2011. Newlin testified again to explain the variance request. Petitioner again agreed to Smothers oral recommendation as sufficient as referenced in Paragraph 4. Further, Newlin again specified that the present request is to allow use of 6mm diameter and 8mm diameter steel wire ropes for three (3) specific conveyances: one (1) KONE traction elevator to be installed at First Baptist Church, 200 South Denver Avenue, Russellville, AR 72802 and two (2) KONE traction elevators to be installed at UALR Honors Housing, 5520 West 30th Street, Little Rock, AR 72204.

6. Petitioner presented several exhibits to the Board at this meeting. These exhibits are attached collectively as Petitioner's Exhibit #2.

#### STEEL WIRE ROPES

7. 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.

8. KONE 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 jurisdiction to accommodate new technologies based upon technical documentation or physical performance verification. Exhibits A-D contained in Petitioner's Exhibit 1 are presented as technical documentation or physical performance verification.

#### GOVERNOR CABLES

9. 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.

10. KONE requests approval for the use of small diameter steel wire governor cables (6mm) based on ASME A17.1-2007 Preface and Section 1.2 which provides general discretion to jurisdiction to accommodate new technologies based upon technical documentation or physical performance verification. Exhibits A-D contained in Petitioner's Exhibit 1 are presented as technical documentation or physical performance verification.

#### 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

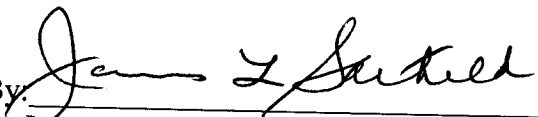
where it is clearly evident that they are necessary in order to prevent undue hardship or where the existing conditions prevent compliance with the literal requirements of the rules and regulations. In no case shall any exception or variation be granted unless, in the opinion of the board, reasonable 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 found in the traction elevators proposed in the First Baptist Church and UALR locations; 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 and the Petitioner’s documentation shows appropriate levels of equivalent safety.

THEREFORE, the Board grants a limited variance to KONE, Inc. to allow use of 6mm diameter and 8mm diameter steel wire ropes on one (1) KONE traction elevator to be installed at First Baptist Church, 200 South Denver Avenue, Russellville, AR 72802 and two (2) KONE traction elevators to be installed at UALR Honors Housing, 5520 West 30th Street, Little Rock, AR 72204.

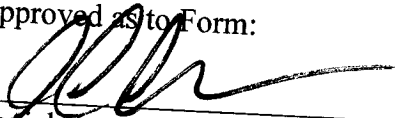
IT IS SO ORDERED.

ELEVATOR SAFETY BOARD  
STATE OF ARKANSAS

By   
James L. Salkeld, Chairman

DATE: 5-19-11

Approved as to Form:



Daniel Knox Faulkner (2002-168)

Staff Attorney

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BEFORE THE ELEVATOR SAFETY BOARD  
STATE OF ARKANSAS

IN RE: THYSSENKRUPP ELEVATOR CORPORATION  
PMD and SYNERGY PRODUCT LINES

**ORDER**

This matter came before the Elevator Safety Board on Thursday, February 24, 2011.

ThyssenKrupp Elevator Corporation (“Petitioner”) was represented by Matthew Wilson (“Wilson”), Branch Manager, and Phillip Hampton (“Hampton”), Chief Engineer. 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 October 22, 2010 Petitioner requested a blanket variance within the state of Arkansas to install the full product line for the “PMD” and “Synergy” series of elevators. The specific products are as follows: PMD77, PMD21, Synergy 85S, 100R, 100S, 300R, and 300S. The specific variance request is for 8mm suspension cables (Deviation 1), synthetic deflector sheaves (Deviation 2), and 6mm or ¼” governor cables (Deviation 3). The request and applicable code sections are outlined in the October 22, 2010. This forty-one (41) page request is attached as Petitioner’s Exhibit #1.

2. Larry Smothers (Smothers), Chief Elevator Inspector, Arkansas Department of Labor, made a report to the board on October 27, 2010 and recommended denial of the variance since the rope and sheave diameters do not meet the requirements of ASME A17.1-2007. This recommendation is attached as Agency Exhibit #1.

3. Petitioner appeared at the regularly scheduled Elevator Board meeting on November 18, 2010. The Board did not have a quorum to conduct business on that date.

4. Petitioner appeared at the next regularly scheduled Elevator Board meeting January 20, 2011. Hampton testified that the products had been subjected to rigorous testing and that A17.1-2010 (scheduled for publication in December 2010) and recently published A17.6-2010 allows these types of ropes and sheaves. A three (3) page supplementary document dated January 20, 2011 is attached as Petitioner's Exhibit #2. The Board lost its quorum during the meeting when Reed Myers decided to recuse himself from voting.

5. Petitioner appeared at a special Board meeting February 24, 2011. Hampton testified again to further explain the variance request.

6. Petitioner orally amended its request during the February 24, 2011 Board meeting to limit the request only to three (3) future conveyances within the state and withdrawing its request found in "Deviation 2" for a variance for synthetic deflector sheaves.

## STEEL WIRE ROPES

7. 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.

8. Petitioner requests approval for the use of small diameter ropes (8mm) based on language in A17.1-2010 (scheduled for publication in December 2010) and recently published A17.6-2010.

#### GOVERNOR CABLES

9. 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.

10. Petitioner requests approval for the use of small diameter governor cables (6mm or 1/4" governor cable) based on language in A17.1-2010 (scheduled for publication in December 2010) and recently published A17.6-2010. This request only applies to Synergy model 85S.

#### 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.”

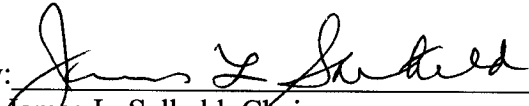


2. In the present case, the Board concludes that an undue hardship exists due to the fact that the new unadopted Codes allow the size of ropes and governor cables found in the Synergy/PMD devices; and that literal compliance would prohibit the operation of these devices. The Board finds that reasonable safety will be secured since these ropes and cables are permitted under newer Codes.

THEREFORE, the Board grants a limited variance to ThyssenKrupp to install three (3) conveyances within the State of Arkansas from the following product lines: PMD77, PMD21, Synergy 85S, 100R, 100S, 300R, and 300S. The specific variance request is for 8mm suspension cables and 6mm or ¼" governor cables (Synergy model 85S only).

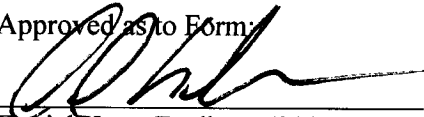
IT IS SO ORDERED.

ELEVATOR SAFETY BOARD  
STATE OF ARKANSAS

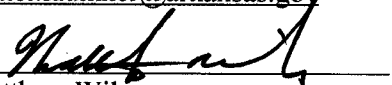
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James L. Salkeld, Chairman

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Approved as to Form:

  
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