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N.C. Department of Labor



Charita K. Berry
Commissioner

STATE CONSTRUCTION CONFERENCE

March 24, 2009



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Cherie K. Berry
Commissioner

PRESENTERS

- **TOM CHAMBERS ASSISTANT BUREAU CHIEF OF THE ELEVATOR AND AMUSEMENT DEVICE BUREAU**
- **JONATHAN BROOKS BUREAU CHIEF ELEVATOR AND AMUSEMENT DEVICE BUREAU**



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OBJECTIVES FOR THE SESSION

- **BUREAU OVERVIEW**
- **INSPECTION NUMBERS**
- **PERMIT REVIEW**
- **INSPECTION PROCESSES**
- **ASME A17.1/B44.1 SAFETY CODE FOR ELEVATORS AND ESCALATORS**



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BUREAU OVERVIEW

- **32 FIELD INSPECTORS**
- **5 FIELD SUPERVISORS**
- **5 OFFICE STAFF INCLUDING THE BUREAU ENGINEER**
- **ASSISTANT CHIEF**
- **BUREAU CHIEF**



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INSPECTION NUMBERS FOR FY 2007-2008

- APPLICATION FOR NEW INSP. - 1,215
- ROUTINE INSEPRCTIONS – 19,180
- AMUSEMENT DEVICE INSP. – 6,131



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INSTALLATION PERMIT REVIEW

- **PERFORMED BY BUREAU ENGINEER
JOE ADAMS**
- **STATE CONSTRUCTION JOBS**
- **ELEVATOR SPECIFICATIONS
TRACTION AND HYDRAULIC**
- **REVIEW OF STATE CONSTRUCTION
JOBS**
- **LETTER DATED – FEBRUARY 7, 2005**

3/24/2005

State Construction Conference

6



CHERIE K. BERRY
COMMISSIONER

JONATHAN R. BROOKS
BUREAU CHIEF
ELEVATOR AND AMUSEMENT DEVICE BUREAU

February 7, 2005

Mr. William Davis
State Construction
301 North Wilmington Street
Suite 450
Raleigh, North Carolina 27601

Dear Mr. Davis,

I am writing you this letter to inform of the intention of the North Carolina Department of Labor Elevator Bureau on reviewing the elevator plans in state owned buildings. As you may be aware we started reviewing the plans for state owned buildings some twenty five years ago, these reviews are done as a courtesy to the State Constructions office. In doing some research there is no law that requires us to perform the review of state owned buildings, also I have found that the Boiler and Pressure Vessel Bureau of the Department of Labor quit reviewing plans some eight years ago.

Until about five years ago we were able to receive a monthly read out from the state constructions office of all the state jobs that told us the project title, state construction identification number, bid date, start date of the job, what percent of the job was complete, schedule completion date and the contract price of the job and some other pertinent facts pertaining to the state jobs. In 1999 state construction went to a new computer system and we were told at that time we would be able to access the system so we would be able to receive the information we had been receiving on the monthly readouts. The Bureau being able to access the system has never happened. This makes it virtually impossible for this Bureau to review the status of any state job. Also we are unable to answer the questions asked of this Bureau in an accurate manner without the access to the system.

There have also been situations where we did not know the status of the job until we received an application to install the elevator. We also have received application to install the equipment before the review process was completed. We have also received applications for equipment that does not meet the state specifications that we were charged with writing, such as non proprietary equipment and new technology such as machine room less elevators (Otis Gen 2, Thyssen Krupp ISIS units). When we have called the state construction office about these situations and the architects and owners wanting to use the equipment not listed in the specifications the response we get is let them get in trouble that is the only way they learn.

1101 MAIL SERVICE CENTER • RALEIGH, NORTH CAROLINA 27699-1101
(919) 807-2770 • FAX: (919) 807-2777 • JONATHAN.BROOKS@NCLABOR.COM

Due to the lack of communications between us and the state construction office we will no longer review state construction projects. This will take effect as of July 1 2005. We will however still help in anyway we possibly can with answering elevator code questions and offering specifications to architects that chose to use them.

Sincerely,

Jonathan Brooks
Bureau Chief
NC Dept. of Labor
cc: Commissioner Berry
Tom Chambers
Henry Madenspacher
John Hoomani



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ASME A17.1/B44.1

- **BI-NATIONAL STANDARD SINCE 2007**
- **ADOPTED BY REFERENCE LATEST EDITION**
- **CODE ISSUES**
- **CHANGES IN THE CODE**



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CODE ISSUES



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SUMP PUMPS/DRAINS

➤ SUMP PUMP REQUIREMENT

➤ Sump pump / drain capacity now required to be a minimum of **11.4** m^3 / hr (3,000 gal / hr) per elevator

➤ **EFFECTIVE IN OCTOBER 6, 2007**



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2.27.8

FEO Switch Keys

- Tubular
- 7 pin
- Style 137
- Bitting code 6143521



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SPRINKLERS

- LOCATION
- HYDRAULIC ELEVATOR PIT
- INITIATING PHASE I FIRE SERVICE
- SHUNT TRIP ELEVATOR SHUT DOWN, DELAY NFPA 72
- VENTILATION OF ELEVATOR EQUIPMENT ROOM



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COMMISSIONER

JONATHAN R. BROOKS
BUREAU CHIEF
ELEVATOR AND AMUSEMENT DEVICE BUREAU

MEMO

DATE: January 1, 2008
TO: All Elevator Companies
FROM: Jonathan Brooks, Bureau Chief
RE: Clarification of Code Issues

The purpose of this memo is to try to clarify several code issues with the A17.1/B44.1 Safety Code for Elevators and Escalators.

- Sprinklers located inside of elevator hoistways or pits shall have an initiating device to initiate Phase I fire service of the affected elevators.
- There shall also be a heat detector located within 2 feet of the sprinkler head that is used to remove the power from the affected elevators. This is the interpretation of the N.C. Department of Labor, Elevator and Amusement Device Bureau of A17.1/B44. 1 2.8.3.3.2. All installation shall be in conformance with the NFPA72 and the 2008 National Electrical Code.
- If the sprinkler head is installed from 0 inches to 24 inches above the pit floor, then all equipment installed from 0 inches to 48 inches shall be rated NEMA 250 type 4. This is in accordance with A17.1/B44. 1 2.8.3.3.4. All installation shall be in conformance with NFPA 72 and the 2008 National Electrical Code.
- If the sprinkler head is located above 24 inches, then the wiring and equipment does not have to meet any specified criteria.
- All risers and returns shall be located outside of the elevator hoistway and the control rooms, control spaces, machine room and machine spaces as specified in A17.1/B44.1 2.8.3.3.1.



Jim Long
Commissioner of Insurance
State Fire Marshal

Engineering

May 16, 2008

Mr. Tom Chambers
Assistant Bureau Chief
Elevator and Amusement Devise Bureau
NC Department of Labor
1101 Mail Service Center
Raleigh, NC 27699-1101

Re: Formal Interpretation of Section 3006.2 of the NC State Building Code

Dear Mr. Chambers:

This is to advise you that the NC Department of Insurance, Office of State Fire Marshal has issued the following formal interpretation regarding venting of elevator machine rooms per Section 3006.2 of the 2006 NC State Building Code.

Section 3006.2 states: "**Venting.** Elevator machine rooms that contain solid-state equipment for elevator operation shall be provided with an independent ventilation or air-conditioning system to protect against the overheating of the electrical equipment. The system shall be capable of maintaining temperatures within the range established for the elevator equipment."

All elevator rooms containing solid-state equipment for elevator operation shall be equipped with independent ventilation or air-conditioning system designed for that room only. This system cannot be a trunk line from a building's HVAC system.

If you have any further questions please feel free to call me.

Sincerely,

Richard Strickland
Chief Fire Code Consultant
NC Department of Insurance
Office of State Fire Marshal

3/24/2009



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INITIATING DEVICES 2.27

- PHASE 1 FIRE SERVICE
- NFPA 72
- LOCATION
- MACHINE ROOM
- HOISTWAY
- ELEVATOR LOBBY



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CODE CHANGES



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CODE CHANGES

- **NEW TECHNOLOGY ASME
A17.7/BB44.7**
- **MACHINEROOMLESS ELEVATORS**
- **ALTERNATIVE SUSPENSION MEANS
ASME A17.6/B44.6**



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QUESTIONS?



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CONTACT INFORMATION

- RALEIGH OFFICE (919) 807-2770
- WWW.NCLABOR.COM
- TOM CHAMBERS - ASSISTANT CHIEF
- EMAIL – TOM.CHAMBERS@LABOR.NC.GOV
- CELL – (919) 868-1116
- JOE ADAMS – BUREAU ENGINEER
- EMAIL – JOE.ADAMS@LABOR.NC.GOV
- CELL – (919) 868-7405



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CONTACT INFORMATION CONT'D

- **JONATHAN BROOKS BUREAU CHIEF**
- **EMAIL-**
JONATHAN.BROOKS@LABOR.NC.GO
V
- **CELL (919) 868-1119**



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**THANK YOU FOR YOUR TIME
AND ATTENTION!!!**