

56-400/401 OL 5-8
12/17/84

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED
USNRC

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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OFFICE OF REGULATORY
DOCKETING & SERVICE
BRANCH

In the Matter of

CAROLINA POWER AND LIGHT COMPANY AND
NORTH CAROLINA EASTERN MUNICIPAL
POWER AGENCY

(Shearon Harris Nuclear Power Plant,
Units 1 and 2)

Docket Nos. 50-400 OL
50-401 OL

JOINT AFFIDAVIT OF RANDALL EBERLY AND DENNIS J. KUBICKI
CONCERNING SER OPEN ITEM 8 (ACCEPTABILITY OF FIRE DOORS)

I, Randall Eberly, being first duly sworn do depose and state:

1. My name is Randall Eberly. I am a Fire Protection Engineer in the Chemical Engineering Branch, Division of Engineering, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission. I am the Staff fire protection reviewer for the Shearon Harris Nuclear plant. I have personal knowledge of the matters set forth herein. My professional qualifications are set forth at pages 1-2 of my testimony filed on August 9, 1984 and bound into the record of this proceeding following Tr. 4626.
2. My name is Dennis J. Kubicki. I am employed by the Nuclear Regulatory Commission as a fire protection engineer in the Chemical Engineering Branch, Division of Engineering, Office of Nuclear Reactor Regulation. I have personal knowledge of the matters set forth herein. A copy of my professional qualifications is attached, as Attachment 1.

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PDR ADOCK 05000400
G PDR

Report of _____
Date _____
Contractor _____
Contract # _____
Interest _____
Foliant _____
Staff _____
In the matter of _____
56-400-067 x 401
Nuclear Regulatory Commission
General EA No. _____
RECEIVED
IDENTIFIED
DATE 12-17-84
BY _____

3. This affidavit addresses the Shearon Harris Nuclear plant SER (NUREG-1038, Nov. 1983) open item No. 8 as it is described on page 9-48 in Section 9.5-1 of the SER. This open item concerns the acceptability of fire doors.

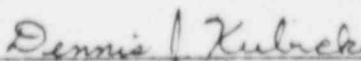
4. Applicants originally provided information on this open item by letter dated October 10, 1984. During the evidentiary hearing on Eddleman Contention 116 concerning fire protection I Randall Eberly, as the Staff's witness indicated that the October 10, 1984 information was not included in the information I had reviewed. Tr. 4629. By letter dated November 8, 1984, the Applicants provided additional information to the NRC Staff concerning this open item. This information has been reviewed for conformance with the Standard Review Plan (NUREG-0800); and BTP CMEB 9.5.1 § C.5.A. Because this open item represents a deviation from the guidelines, additional engineering guidance was obtained from National Fire Protection Association Standard No. 80, "Fire Doors and Windows."

The Applicants, by letter dated November 8, 1984, committed to provide fire doors tested by a nationally recognized laboratory, except in those areas where design requirements specify the use of specialty doors. Specialty doors are doors such as missile resisting or bulletproof doors that serve functions other than solely fire protection functions. The Applicants provided a list of 20 areas provided with untested specialty doors. Of these, seven areas involve interior doors, and thirteen areas involve openings to the outside of the plant. The design and construction of the doors, and their respective locations within the plant have

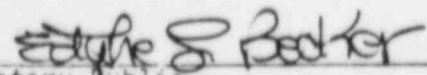
been reviewed to determine their fire-resisting capability, based on the relative fire hazard in the areas where they are installed. The doors are constructed of heavy weight, reinforced steel plates many times thicker than those used in approved fire doors. The latching mechanisms utilize multiple point steel locking pins. If a fire occurred in the vicinity of one of the speciality doors, the mass of the door provides a thermal heat sink that would require a significant fire exposure to raise the temperature of the steel to its yield point. Unequal thermal expansion of the door and its frame which could cause warping of the door will be prevented by the multiple point steel locking pins. The locations within the plant, where the specialty doors are installed do not contain significant amounts of combustibles that, in our opinion, would provide a fire exposure capable of causing failure of the doors.

Based on the above factors, the Applicants' specialty fire doors are an acceptable deviation from Section C.5.A of the NRC Staff's guidelines contained in BTP CMEB 9.5.1 (NUREG-0800). The Staff considers this open item resolved.


Randall Eberly PE


Dennis J. Kubicki

Subscribed and sworn to before me
this 9th day of November, 1984


Notary Public

My commission expires: 7/1/86

PROFESSIONAL QUALIFICATIONS OFDENNIS J. KUBICKI

CHEMICAL ENGINEERING BRANCH

DIVISION OF ENGINEERING

I am a Fire Protection Engineer in the Chemical Engineering Branch of the Division of Engineering, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission. In my present position, I have responsibility for performing safety reviews and evaluations of the fire protection programs of nuclear power plants. This includes the determination of the degree of conformance of the plants with applicable NRC fire protection guidelines and requirements.

I graduated from Illinois Institute of Technology in 1974 with a B.S. degree in Fire Protection and Safety Engineering. I have a Master's Degree in Business Administration from the University of Maryland, and I have a Master's Degree in Safety from the University of Southern California (Eastern Division).

From 1974 to 1977 I was employed by Insurance Services Office of Maryland as a Fire Protection Engineer, responsible for the evaluation of the fire protection for diverse building types and occupancies. My work also included surveying municipalities to assess the adequacy of local fire departments, water systems, municipal fire alarm systems, and city-wide structural conditions as they related to fire risk.

From 1977 to 1978 I was employed by the Maryland State Fire Marshal's Office as a Fire Protection Engineer, responsible for evaluating the fire safety of health care facilities, such as hospitals, nursing homes and state mental institutions.

From 1978 to 1980 I was employed by the General Services Administration of the U.S. Government where I was responsible for the fire protection of nearly 150 buildings that were owned or leased by the Government. This included the design and testing of fire protection systems, the evaluation of structural conditions and occupancy hazards as they related to life and fire safety, the investigation of fires, and the development of fire protection policy.

From 1980 to 1982 I was the Assistant Manager, Industrial and Fire Safety, in the NASA Safety Office. My responsibilities included the development of fire protection and life safety policies for NASA field installations; the evaluation of the safety programs at NASA field installations, the review of proposed fire protection projects, equipment and apparatus; participation in fire and accident investigation boards; and research to provide solutions to unique fire protection problems.

I have attended numerous and industrial and life safety seminars.

I am a member in the National Fire Protection Association, the Society of Fire Protection Engineers, and the American Society of Safety Engineers.

I have had several articles published in Professional Journals. The two most recent were published in the May 1982 and July 1981 issues of Fire Journal entitled: "Life Safety for Buildings, Passenger Vessels and Transport Aircraft, A Comparative Analysis" and "Fire Protection and Emergency Rescue Planning for the NASA Space Shuttle," respectively.