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 50-270 Oconee Nuclear Station, Unit 2, Duke Power Co.  
 50-287 Oconee Nuclear Station, Unit 3, Duke Power Co.

DOCKET #  
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AUTH. NAME: AUTH. AFFILIATION  
 PARKER, N.O. Duke Power Co.  
 RECIP. NAME: RECIPIENT AFFILIATION  
 DENTON, H.R. Office of Nuclear Reactor Regulation, Director

SUBJECT: Discusses planned review of B&W SB LOCA Methods Program,  
 including verification testing phase to be completed by  
 810601. Jtil commitments stated.

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# DUKE POWER COMPANY

POWER BUILDING

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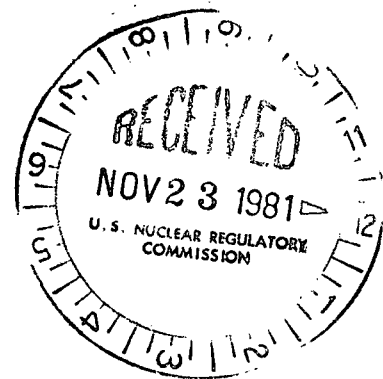
WILLIAM O. PARKER, JR.  
VICE PRESIDENT  
STEAM PRODUCTION

November 17, 1981

TELEPHONE: AREA 704  
373-4083

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Subject: Oconee Nuclear Station  
Docket Nos. 50-269, -270, -287



Dear Mr. Denton:

This letter expresses Duke Power Company's understanding of the agreements reached in the meeting of October 23, 1981 with you and members of your Staff. In summary, the Staff concluded that it is not clear that further verification testing of our SB LOCA methods is required and agreed to participate in an in-depth review of the current B&W SB LOCA Methods Program including the verification testing base. This review is to begin as soon as practical and will include the review of results achieved with the improved models and methods now being developed. This review is to be completed in conjunction with the completion of the SB LOCA Methods Program or by June 1, 1982, whichever is earlier.

In addition, the Staff stated that a commitment to RCS vents and water level measurement would support their continued confidence in the Babcock & Wilcox NSS.

Based on the above understanding, Duke is committed to the following:

1. Duke will participate in a joint effort with the Staff to assure that the SB LOCA methods and ATOG programs, both of which are currently in progress, are fully understood. This effort will include the following:

--Code parameters, models, assumptions, etc., which are important in controlling dynamics of interest will be identified and available experimental data substantiating their validity will be reviewed. This will be done using results of the improved evaluation model in order that the most accurate dynamic response characteristics are reviewed.

--Additional experimental data, from separate effects or integral tests, will be defined which address specific technical gaps, if any. Duke Power does not oppose additional testing. Instead, Duke desires to assure that questions which must be answered are answered in the most appropriate technical and cost-effective manner.

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Mr. Harold R. Denton, Director  
November 17, 1981  
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--Identify where and how additional experimental data may be obtained, if any is required.

With a cooperate effort, Duke intends to support the B&W Owners Group in completing this program within one month of completion of the SB LOCA program or June 1, 1982, whichever is earlier. Consistent with this effort, it is expected that the Staff will continue the review of and eventually approve the proposed Abnormal Transient Operating Guidelines program by April 1982.

2. As requested in the meeting, we are providing a summary of Dr. Roy's presentation on the philosophy underlying ATOG. The attached, "Abnormal Transient Operating Procedures for Nuclear Power Plants" by J. J. Kelly and D. H. Williams, includes the total scope of the ATOG approach as well as the philosophy presented by Dr. Roy.
3. Duke Power has previously committed to install RCS high points and on June 30, 1981 provided a detailed description of the proposed system as well as guidance for its use. These vents are currently in the process of being installed on Oconee Unit 1 during the current outage; they will be installed during the forthcoming outages of Oconee Units 2 and 3.

As the Staff is aware, Duke Power has been obtaining information and evaluating various hot leg water level monitoring systems. This concept was discussed with the NRC Staff on May 13, 1981. Duke is in the process of reviewing available system designs as well as evaluating what actions may be taken with an accurate and unambiguous system. We expect to conclude this evaluation in early 1982 and will be providing a report of a proposed level system by May 14, 1982. This report will provide engineering details as well as an anticipated installation schedule following Staff approval of the design.

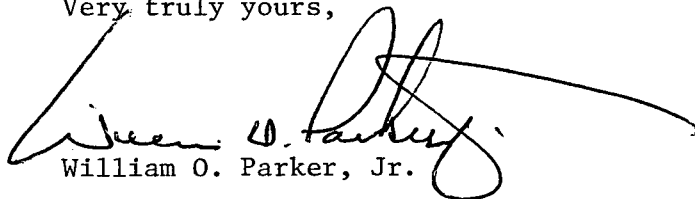
4. By letter dated November 5, 1981 Duke provided a response to an NRC letter dated May 5, 1981 concerning natural circulation cooldown and the formation of steam voids during cooldown. It is considered that this letter adequately addresses the concern of Dr. Mattson regarding steam formation during transients.

We believe this letter reflects the major conclusions and agreements reached in the October 23 meeting. If additional information is required, please advise.

Mr. Harold R. Denton, Director  
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The B&W Owners Group is prepared to begin the review of our SB LOCA Methods Program with the Staff and requests that the assigned Staff reviewer contact Mr. Lou Lanese of GPUNC to establish the details for carrying out this review. It is our intent to implement this review without impacting the current schedule for the completion of the SB LOCA Methods Program.

Very truly yours,

A handwritten signature in dark ink, appearing to read "William O. Parker, Jr.", with a long, sweeping horizontal stroke extending to the right.

RLG/php  
Attachment

cc: Mr. T. M. Novak  
Assistant Director for Operating Reactors  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

shall have no marking to indicate that protected and vital information is contained. The inner package shall be marked to identify the highest classification of material it contains.

- b. A return receipt shall be obtained when transmitting protected and vital documents outside Duke Power Company.
- c. Inter-departmental transmittal of protected and vital documents shall be accompanied by a return receipt. This receipt shall identify documents transmitted and documents delivered by document identification and copy numbers.
- d. For each intra-departmental transmittal of a vital or protected document, the Security Document Controller or the nuclear security clerk shall record in the register the date, the identity of the recipient of the document, and the identifying number and copy number of the document.
- e. Documents transmitted between originator and receiver without intermediate handling need not be sealed.

J. Storage of Documents:

- 1. Vital documents shall be stored in repository at least equivalent to commercially available files of substantial construction secured with a combination or key lock, meeting the requirements of Regulatory Guide 5.12.

2. Protected documents shall be stored in a repository at least equivalent to commercially available locking office furniture. Locking desks, credenzas, and cabinets provided by Duke Power Company meet this requirement.
3. All storage repositories and facilities containing protected or vital documents shall be locked when not attended.

K. Retention of Documents:

1. One copy of each vital and protected document shall be retained for a minimum of two years after such document becomes an inactive document.
2. Active documents shall be retained for the life of the station.
3. Preliminary drawings, i.e., those drawings under review for acceptance, may be destroyed upon being superseded.

L. Disposal of Documents:

Disposal of protected documents shall be by any method which will preclude the further use or copying of that document.

Vital documents may be disposed of by shredding, burning, pulping, or by any other method that assures complete destruction of the vital information. The document controller destroying vital documents shall maintain records of the identification and copy number of each vital document destroyed.

Upon disposal of vital or protected document, the originating document controller shall be advised.

M. Missing Documents:

Missing vital or protected documents shall be reported to the originating or receiving departmental nuclear security document controller.

Upon notification of a missing document, the affected departmental Nuclear Security Document Controller shall assess the threat of compromise posed by the missing document, advise his respective Vice President, and initiate those actions necessary to prevent compromise of the affected system.

N. Document Identification:

Document identification numbers shall be in the following format and provide the following information.

Station Identification

Document Number

Revision Number

Originating or Receiving Activity

Copy Number

Copying Activity Identification (If Required)

Sub Copy Number (If Required)

AA - NNNN - NN - AA - NN - AA - NN

Station Identification:

GS - All Nuclear Stations

OS - Ocone

MC - McGuire

CN - Catawba

PK - Perkins

CK - Cherokee

Document Number - 4 digit identification number (may be larger if needed)

Revision Number - 2 digit revision identification number (may be larger if needed). Original shall be revision number 0; first revision shall be number 01.

Originating or Receiving Activity:

CD - Construction Department, General Office

DE - Design Engineering Department

SM - Steam Production Department, General Office

QA - Quality Assurance

OS - Oconee, Steam

OC - Oconee, Construction

MS - McGuire, Steam

MC - McGuire, Construction

CS - Catawba, Steam

CC - Catawba, Construction

PS - Perkins, Steam

PC - Perkins, Construction

KS - Cherokee, Steam

KC - Cherokee, Construction

Originating or Receiving Activity Copy Number - 2 digit identification (may be larger if necessary). The original shall be copy number 0.

Copying Activity Identification - Use same codes as originating or receiving activity.



Sub Copy Number - 2 digit copy identification (may be larger if necessary).

Examples:

MC-4021-02-SM-04

Revision #2, Copy 4 of document #4021, originated by Steam Production Department, General Office, about McGuire Nuclear Station.

MC-4021-02-SM-04-DE-02

Copy #2 made by Design Engineering Department of the above document.

0. All persons allowed access to security related documents per this procedure will receive a security clearance according to the procedures prescribed in the Personnel Security Clearance Screening Program Manual. These individuals will be added to the security portion of the Personnel Qualifications Data Base according to the procedures in Appendix C of this manual; to include using the proper data entry forms to insure that the names are added to the data base correctly.

GENERAL SPECIFICATIONS AND DESIGN FEATURES

MEILINK AND SHAW-WALKER SAFES

Shaw-Walker

Specs:

- 1) Manipulation-Proof Combination provide absolute security against manipulation of lock by sound or feel - even with the aid of electronic listening devices. Bears Underwriters' Laboratories Group 1 Label.
- 2) Added Security - Positive Relocking Trigger locks bolt immovably if forcible entry is attempted by "punching" the spindle...Key-Change permits user to change combination quickly and easily to any of a million combinations.
- 3) Signal Plunger controls all lower drawers. When the Signal Plunger projects, you know lower drawers are not locked.
- 4) Lock Verifier, a Shaw-Walker exclusive, prevents turning combination dial to lock top drawer until the Signal Plunger is depressed, locking all lower drawers.
- 5) Dead Bolts for All Drawers - The Manipulation-Proof Combination Lock operates heavy-duty Dead Bolt in top drawer; Signal Plunger operates solid Dead Bolts in lower drawers.
- 6) Automatic Dead-Bolt Guards, another Shaw-Walker invention, make it absolutely impossible to depress Signal Plunger unless all lower drawers are closed and latched. This prevents accidentally leaving any drawer "locked open".

Shaw-Walker

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- 7) Spy-Proof Dial - eliminates the possibility of visual or photographic detection of the combination while it is being dialed by an authorized person. the numerals, shielded from view by a metal guard, are visible only through opening at top of dial.
- 8) Fire-Files bear the Shaw-Walker Certified Protection and the Underwriters' Laboratories labels certifying that they meet the specifications for one-hour protection. To earn the one-hour label Fire-Files brought their contents safely through furnace tests of the laboratories under exposure to fire on all six sides for at least 60 minutes at a temperature reaching 1700<sup>0</sup> Fahrenheit, as required by the Standard Time Temperature Curve.
- 9)
  - (a) Thick, steel-walled steel-reinforced fire-insulation.
  - (b) Heavily insulated bulkheads between drawers.
  - (c) Interlocking drawer fronts, all of which combine to make each drawer an individual safe.

Meilink

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Spec:

- 1) All Meilink Four-Hour Safes are built in strict conformity with United Station Federal Specifications AA-S-81-b for Class "A" insulated safes. Section E-2b of these specifications states, "Class 'S' safes shall be able to withstand a standard fire test for four hours without attainment of temperature within the safe at any thermocouple location higher than 350° F. (177° C.) either during or after the fire exposure.
- 2) Safes bearing Class 350-4 hour labels are effective in withstanding:
  - (a) severe fire reaching 2000° F. for at least four hours before the interior temperature reaches 350° F.
  - (b) a combined explosion and impact test to determine whether a sudden heating will cause internal explosion; also, if after drop, loss of contents. The safe is placed in the furnace, pre-heated to 2000° F. for 30 minutes. The safe is removed from furnace and hoisted 30 feet and dropped. After cooling, the safe is again placed into the furnace in an inverted position and heated to 1700° F. for one hour.

Meilink

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- (3) The Underwriters' Laboratories Relocking Device Label certifies that a relocking device is built into the safe and if the lock is forced, the locking mechanism becomes inoperative.
- (4) The impact and explosion tests are the same as those of Underwriters' Laboratories, Inc. with the exception that the safe must be loaded with records of 20 pounds per cubic foot of capacity. The Federal Specifications in addition to the above specify the size and number of locking bolts, kind and type of combination lock and size and thickness of the drill-resistive guard plates that protect the lock and lock connections.
- (5) The new Meilink combination dial has a "cover-up" design which prevents prying eyes from seeing the numbers being dialed. It is larger, too, and easier to operate than the conventional type.
- (6) Both inner and outer shell of heavy gauge steel form the foundation of the entire structure and carry the load of the safe.
- (7) Additional strength is provided by reinforcing "U" shaped steel channels rigidly welded to the outer surface of the inner wall.
- (8) Interlocking door moulding fits tightly against body jamb and effectively retards the penetration of heat during a fire.
- (9) Door and frame design give great strength to the safe and provides protection against severe impact and crushing loads in case of building collapse.
- (10) Heavy gauge steel door plates give the doors exceptional strength and rigidity and make the safe especially resistive to burglarious attack. Heavy steel hinges are electrically welded to angle frames and door plates.
- (11) Meilink's exclusive and time proven Thermo-Cel insulation is solid cast and encased between the steel inner and outer shells of body and door and in the front frame moulding. Thermo-Cel offers great heat resistance and possesses special properties that preserve the metal.
- (12) Bolt operating mechanism and Combination lock are rigidly assembled and protected by a drill resistive steel plate. Compound bolt movement assures ease of operation of locking bolts.