

February 11, 1997

Mr. John K. Wood
Vice President - Nuclear, Davis-Besse
Centerior Service Company
c/o Toledo Edison Company
Davis-Besse Nuclear Power Station
5501 North State Route 2
Oak Harbor, Ohio 43449-9760

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SUBJECT: AMENDMENT NO. 214 TO FACILITY OPERATING LICENSE NO. NPF-3 -
DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1 (TAC NO. 96563)

Dear Mr. Wood:

The Commission has issued the enclosed Amendment No. 214 to Facility Operating License No. NPF-3 for the Davis-Besse Nuclear Power Station (DBNPS), Unit No. 1. The amendment revises the Technical Specifications (TS) in response to your application dated September 12, 1996.

This amendment revises TS 3/4.1.3.4, "Reactivity Control Systems - Rod Drop Time," and TS 3/4.5.2, "Emergency Core Cooling Systems - Tavg \geq 280°F," to change the surveillance test interval from every 18 months to each refueling interval (\leq 730 days, nominally 24 months). Additionally, the amendment removes a footnote for TS 4.5.2.b that is no longer applicable.

A copy of the Safety Evaluation is also enclosed. Notice of issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

Original Signed by

Allen G. Hansen, Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosures: 1. Amendment No. 214 to
License No. NPF-3
2. Safety Evaluation

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| NAME | EBarnhill <i>EB</i> | | AHansen <i>AB</i> | | RJones * | | MYoung * | | | |
| DATE | 02/11/97 | | 02/11/97 | | 10/4/96 | | 10/11/96 | | | |

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| NAME | EBarnhill | EB | AHansen | AB | RJones * | | MYoung * | | | |
| DATE | 02/11/97 | | 02/11/97 | | 10/4/96 | | 10/11/96 | | | |

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

February 11, 1997

Mr. John K. Wood
Vice President - Nuclear, Davis-Besse
Centerior Service Company
c/o Toledo Edison Company
Davis-Besse Nuclear Power Station
5501 North State Route 2
Oak Harbor, Ohio 43449-9760

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Sincerely,

A handwritten signature in black ink, appearing to read "Allen G. Hansen", is written over a horizontal line.

Allen G. Hansen, Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-346

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2. Safety Evaluation

cc w/encls: See next page

Mr. John K. Wood
Toledo Edison Company

cc:

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Davis-Besse Nuclear Power Station
Unit No. 1

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

TOLEDO EDISON COMPANY
CENTERIOR SERVICE COMPANY

AND

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

DOCKET NO. 50-346

DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 214
License No. NPF-3

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Toledo Edison Company, Centerior Service Company, and The Cleveland Electric Illuminating Company (the licensees) dated September 12, 1996, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-3 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 214, are hereby incorporated in the license. The Toledo Edison Company shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance, and shall be implemented no later than 120 days after issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Allen G. Hansen, Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of issuance: February 11, 1997

ATTACHMENT TO LICENSE AMENDMENT NO. 214

FACILITY OPERATING LICENSE NO. NPF-3

DOCKET NO. 50-346

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change.

Remove

3/4 1-24

3/4 5-4

Insert

3/4 1-24

3/4 5-4

REACTIVITY CONTROL SYSTEMS

ROD DROP TIME

LIMITING CONDITION FOR OPERATION

3.1.3.4 The individual safety and regulating rod drop time from the fully withdrawn position shall be ≤ 1.58 seconds from power interruption at the control rod drive cabinets to 3/4 insertion with:

- a. $T_{avg} \geq 525^{\circ}\text{F}$, and
- b. All reactor coolant pumps operating.

APPLICABILITY: MODES 1 and 2.

ACTION:

- a. With the drop time of any safety or regulating rod determined to exceed the above limit, restore the rod drop time to within the above limit prior to proceeding to MODE 1 and 2.
- b. With the rod drop times within limits but determined with less than 4 reactor coolant pumps operating, operation may proceed provided that THERMAL POWER is restricted to less than or equal to the THERMAL POWER allowable for the reactor coolant pump combination operating at the time of rod drop time measurement.

SURVEILLANCE REQUIREMENTS

4.1.3.4 The rod drop time of safety and regulating rods shall be demonstrated through measurement prior to reactor criticality:

- a. For all rods following each removal of the reactor vessel head,
- b. For specifically affected individual rods following any maintenance on or modification to the control rod drive system which could affect the drop time of those specific rods, and
- c. At least once each REFUELING INTERVAL.

SURVEILLANCE REQUIREMENTS (continued)

- b. At least once each REFUELING INTERVAL, or prior to operation after ECCS piping has been drained by verifying that the ECCS piping is full of water by venting the ECCS pump casings and discharge piping high points.
- c. By a visual inspection which verifies that no loose debris (rags, trash, clothing, etc.) is present in the containment which could be transported to the containment emergency sump and cause restriction of the pump suction during LOCA conditions. This visual inspection shall be performed:
 - 1. For all accessible areas of the containment prior to establishing CONTAINMENT INTEGRITY, and
 - 2. For all areas of containment affected by an entry, at least once daily while work is ongoing and again during the final exit after completion of work (containment closeout) when CONTAINMENT INTEGRITY is established.
- d. At least once per 18 months by:
 - 1. Verifying that the interlocks:
 - a) Close DH-11 and DH-12 and deenergize the pressurizer heaters, if either DH-11 or DH-12 is open and a simulated reactor coolant system pressure which is greater than the trip setpoint (<438 psig) is applied. The interlock to close DH-11 and/or DH-12 is not required if the valve is closed and 480 V AC power is disconnected from its motor operators.
 - b) Prevent the opening of DH-11 and DH-12 when a simulated or actual reactor coolant system pressure which is greater than the trip setpoint (<438 psig) is applied.
 - 2.
 - a) A visual inspection of the containment emergency sump which verifies that the subsystem suction inlets are not restricted by debris and that the sump components (trash racks, screens, etc.) show no evidence of structural distress or corrosion.
 - b) Verifying that on a Borated Water Storage Tank (BWST) Low-Low Level interlock trip, with the motor operators for the BWST outlet isolation valves and the containment emergency sump recirculation valves energized, the BWST Outlet Valve HV-DH7A (HV-DH7B) automatically close in ≤ 75 seconds after the operator manually pushes the control switch to open the Containment Emergency Sump Valve HV-DH9A (HV-DH9B) which should be verified to open in ≤ 75 seconds.
 - 3. Deleted



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 214 TO FACILITY OPERATING LICENSE NO. NPF-3
TOLEDO EDISON COMPANY
CENTERIOR SERVICE COMPANY
AND
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY
DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1
DOCKET NO. 50-346

1.0 INTRODUCTION

By letter dated September 12, 1996, Toledo Edison Company, Centerior Service Company, and The Cleveland Electric Illuminating Company (the licensees), submitted a request for changes to the Davis-Besse Nuclear Power Station (DBNPS), Unit No. 1 Technical Specifications (TS). The requested amendment would revise TS 3/4.1.3.4, "Reactivity Control Systems - Rod Drop Time, " and TS 3/4.5.2, "Emergency Core Cooling Systems - $T_{avg} \geq 280^{\circ}\text{F}$," to change surveillance test intervals from every 18 months to each refueling interval (≤ 730 days, nominally 24 months). Additionally, the proposed amendment would remove a footnote for TS 4.5.2.b to delay venting one high pressure injection discharge line until the tenth refueling outage.

2.0 EVALUATION

The licensees performed the safety assessment for the proposed changes to the surveillance test intervals in accordance with Generic Letter 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle," requirements. This assessment entailed reviewing the historical maintenance and surveillance test data at the bounding surveillance interval limit, performing an evaluation to ensure that a 24-month surveillance test interval would not invalidate any assumption in the plant licensing bases, and the determination that the effect on safety is small.

This license amendment request is one in a series of amendments which are being submitted as cost beneficial licensing actions to extend surveillance testing intervals from every 18 months to each REFUELING INTERVAL (defined as ≤ 730 days, nominally 24 months, as defined in TS Definition 1.42). The licensees propose replacing the phrase "at least once per 18 months, during shutdown" with "at least once each REFUELING INTERVAL," for TS 4.1.3.4.c, "Reactivity Control Systems - Rod Drop Time," Surveillance Requirement (SR) c. This SR requires, prior to reactor criticality, demonstrating through

measurement the rod drop time of safety and regulating rods. The licensees evaluated the 18-month TS surveillance test data and maintenance history for the rod drop times for the period since 1985. This period was selected as most representative of current operating conditions since many changes occurred after the loss of feedwater event in 1985. There were no failures or significant degradation noted in the 18-month surveillance test data and no maintenance failures that would have resulted in the components being inoperable in accordance with TS requirements. DBNPS has a "Type A" Control Rod Drive Mechanism (CRDM) design. This type of design has not experienced the problems with crud in the ball check valves of the CRDMs like the "Type C" design. The licensees concluded that no new failure modes would be introduced as a result of the extension of the surveillance interval and found that no changes were required to any accident analysis assumptions.

The other change proposed involves TS 3/4.5.2, "Emergency Core Cooling Systems, ECCS Subsystems - $T_{avg} \geq 280^{\circ}\text{F}$," SR 4.5.2.b. This SR verifies the ECCS piping to be full of water by venting the ECCS pump casings and discharge piping high points at least once every 18 months or prior to operation after the ECCS piping has been drained. The licensee reviewed the surveillance tests performed and found the test results were acceptable. No maintenance activities were found to be associated with this surveillance requirement. The licensee determined that the frequency at which the ECCS piping is vented is not an initiator nor a contributor to the initiation of an accident described in the Updated Safety Analysis Report. In addition, calculations have been performed to show that if the line downstream of the normally closed high pressure injection line isolation valves were devoid of water, the forces on the line downstream would not exceed acceptable stresses if the high pressure injection system actuated. Based on these findings the licensees determined that the effect on safety would be small.

The proposed amendment would remove a footnote for TS 4.5.2.b to delay venting one high pressure injection discharge line until the tenth refueling outage. During the tenth refueling outage a vent valve was installed on one high pressure injection discharge line to meet the requirements of this TS. Therefore, the footnote is no longer required and the change is acceptable.

Accordingly, the staff concludes that the licensees performed the safety assessment for these proposed changes to the SRs in accordance with the GL. These SRs do not alter the intent or method by which the surveillances are conducted and do not modify the manner in which the plant is operated. The past surveillance, preventive maintenance, if applicable, and the frequency and the type of corrective maintenance indicate that increasing the surveillance interval will not affect the reliability of the rod drop times for the safety and regulating rods or the ECCS venting requirements. Therefore, the staff finds the proposed changes acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Ohio State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or changes a surveillance requirement. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluent that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding (61 FR 52971). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: L. Gundrum

Date: February 11, 1997