

August 26, 1991

Docket No. 50-346

Mr. Donald C. Shelton, Vice President
Nuclear - Davis-Besse
c/o Toledo Edison Company
300 Madison Avenue
Toledo, Ohio 43652

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Dear Mr. Shelton:

SUBJECT: AMENDMENT NO. 161 TO FACILITY OPERATING LICENSE NO. NPF-3
(TAC NO. 79962)

The Commission has issued Amendment No. 161 to Facility Operating License No. NPF-3 for the Davis-Besse Nuclear Power Station, Unit No. 1. The amendment revises the Technical Specifications in response to your application dated March 1, 1991 as supplemented by telecon of July 26, 1991.

This amendment revises the snubber surveillance schedule.

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:

J. B. Hopkins

Jon B. Hopkins, Sr. Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 161 to License No. NPF-3
2. Safety Evaluation

cc: See next page

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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

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.161
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 March 1, 1991 as supplemented by telecon of July 26, 1991, 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.

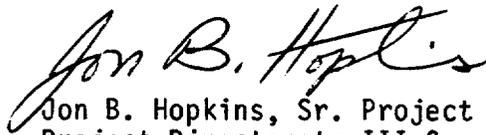
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-3 is hereby amended to read as follows:

(a) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 161, 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 not later than 45 days after issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Jon B. Hopkins, Sr. Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of issuance: August 26, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 161

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. The corresponding overleaf pages are also provided to maintain document completeness.

<u>Remove</u>	<u>Insert</u>
3/4 7-20	3/4 7-20
3/4 7-21	3/4 7-21
-	3/4 7-21a
-	3/4 7-21b
3/4 7-22	3/4 7-22
3/4 7-22a	3/4 7-22a
B 3/4 7-5	B 3/4 7-5

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

3. Verifying that the makeup flow of the system is $300 \text{ cfm} \pm 10\%$ when supplying the control room with outside air.
- f. After each complete or partial replacement of a HEPA filter bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% in accordance with ANSI N510-1980 for a DOP test aerosol while operating the system at a flow rate of $3300 \text{ cfm} \pm 10\%$.
- g. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of $3300 \text{ cfm} \pm 10\%$.

PLANT SYSTEMS

3/4.7.7 SNUBBERS

LIMITING CONDITION FOR OPERATION

3.7.7 All safety-related snubbers shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4. (MODES 5 and 6 for snubbers located on systems required OPERABLE in those MODES).

ACTION:

- a. With one or more snubbers inoperable: 1. within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status, or 2. verify system operability with the snubber(s) inoperable by engineering evaluation within 72 hours; or 3. declare the supported subsystem inoperable and follow the appropriate ACTION statement for that system.

and, for snubbers which have failed either the visual or functional test:

- b. Perform an engineering evaluation within 90 days to determine if any safety-related system or component has been adversely affected by the inoperability of the snubber and if the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.¹ The provisions of Technical Specification 3.0.4 are not applicable for the component or system.

SURVEILLANCE REQUIREMENTS

4.7.7 Each snubber² shall be demonstrated OPERABLE by the requirements of the following surveillance programs and pursuant to requirements of Specification 4.0.5.

4.7.7.1 Visual Inspection Program

¹Engineering evaluation is not required when a snubber is removed for surveillance testing provided it is returned to OPERABLE status within the requirements of ACTION statement a.

²Safety-related snubbers are listed in the latest revision of applicable surveillance test procedure(s). Snubbers may be added to, or removed from, safety-related systems and their assigned groups without a License Amendment.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

a. General Requirements

At least once per inspection interval, each group of snubbers in use in the Plant shall be visually inspected in accordance with Specification 4.7.7.1.b and 4.7.7.1.c. Visual inspections may be performed with binoculars, or other visual support devices, for those snubbers that are difficult to access and where required to keep exposure as low as reasonably achievable. Response to failures shall be in accordance with Specification 4.7.7.1.d.

b. Inspection Interval

The inspection interval may be applied on the basis of snubber groups. The snubber groups may be established based on physical characteristics and accessibility. Inaccessible snubbers are defined as those located: (a) inside containment, (b) in high radiation exposure zones, or (c) in areas where accessibility is limited by physical constraints such as the need for scaffolding.

Each of the groups may be inspected independently according to the schedule determined by Table 4.7-5. The visual inspection interval for each snubber group shall be determined based upon the criteria provided in Table 4.7-5, and the first inspection interval determined using the criteria shall be based upon the previous inspection interval as established by the requirements in effect before amendment.

**TABLE 4.7-5
SNUBBER VISUAL INSPECTION INTERVAL**

Population or Group (Notes 1 and 2)	NUMBER OF UNACCEPTABLE SNUBBERS		
	Column A Extended Interval (Notes 3 and 6)	Column B Repeat Interval (Notes 4 and 6)	Column C Reduced Interval (Notes 5 and 6)
1	0	0	1
80	0	0	2
100	0	1	4
150	0	3	8
200	2	5	13
300	5	12	25
400	8	18	36
500	12	24	48
750	20	40	78
1000 or greater	29	56	109

Note 1: The next visual inspection interval for a snubber population or group size shall be determined based upon the previous inspection interval and the number of unacceptable snubbers found during that interval. Snubbers may be grouped, based upon their accessibility during power operation, as accessible or inaccessible. These categories may be examined separately or jointly. However, the licensee must make and document that decision before any inspection and shall use that decision as the basis upon which to determine the next inspection interval for that group.

Note 2: Interpolation between population or group sizes and the number of unacceptable snubbers is permissible. Use next lower integer for the value of the limit for Columns A, B, or C if that integer includes a fractional value of unacceptable snubbers as determined by interpolation.

Note 3: If the number of unacceptable snubbers is equal to or less than the number in Column A, the next inspection interval may be twice the previous interval but not greater than 48 months.

Note 4: If the number of unacceptable snubbers is equal to or less than the number in Column B but greater than the number in Column A, the next inspection interval shall be the same as the previous interval.

Note 5: If the number of unacceptable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be two-thirds of the previous interval. However, if the number of unacceptable snubbers is less than the number in Column C but greater than the number in Column B, the next interval shall be reduced proportionally by interpolation, that is, the previous interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of unacceptable snubbers found during the previous interval and the number in Column B to the difference in the numbers in Columns B and C.

Note 6: The provisions of Specification 4.0.2 are applicable for all inspection intervals up to and including 48 months, with the exception that inspection of inaccessible snubbers may be deferred to the next shutdown when plant conditions allow five days for inspection.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

c. Acceptance Criteria

A snubber shall be considered OPERABLE as a result of a visual inspection if: (1) there are no visible indications of damage or inoperability, and (2) attachments to the foundation or supporting structure are secure.

d. Response to Failures

For each snubber unit which does not meet the visual inspection acceptance criteria of Specification 4.7.7.1.c:

1. Determine the snubber OPERABLE by functionally testing the snubber in the as-found condition per Specification 4.7.7.2, unless the (hydraulic) snubber was determined inoperable because the fluid port was found uncovered; and
2. Clearly establish and remedy the cause of the rejection for that particular snubber and for other snubbers that may be generically susceptible; and
3. Classify the snubber as acceptable for the purpose of establishing the next visual inspection interval.

OR

1. Perform the ACTION specified in 3.7.7a; and
2. Perform an engineering evaluation as specified in 3.7.7.b; and
3. Classify the snubber as unacceptable and establish the frequency of group inspection as described in Specification 4.7.7.1.b.

e. Transient Event Inspection

An inspection shall be performed of all hydraulic and mechanical snubbers attached to sections of systems that have experienced unexpected, potentially damaging transients as determined from a review of operational data. A visual inspection of the snubbers on these systems shall be performed within six months following such an event. In addition to satisfying the visual inspection acceptance criteria, freedom-of-motion of mechanical snubbers shall be verified using at least one of the following: (1) manually induced snubber movement; or (2) evaluation of in-place snubber piston setting; or (3) stroking the mechanical snubber through its full range of travel.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4.7.7.2 Functional Test Program

a. General Requirements

At least once per inspection interval a representative sample of each group of snubber in use in the Plant shall be functionally tested in accordance with Specifications 4.7.7.2.b and 4.7.7.2.c. Response to the failures shall be in accordance with Specification 4.7.7.2.d.

For all snubbers, functional testing shall consist of either bench testing or in-place testing.

b. Inspection Interval and Sample Criteria

The snubbers may be categorized into groups based on physical characteristics and accessibility. Each group may be tested independently from the standpoint of performing additional tests if failures are discovered.

PLANT SYSTEMS

BASES

PLANT SYSTEMS

3/4.7.7 SNUBBERS

All safety-related snubbers are required OPERABLE to ensure that the structural integrity of the reactor coolant system and all other safety-related systems is maintained during and following a dynamic event. Snubbers excluded from this inspection program are those installed on safety-related systems for loads other than dynamic or on nonsafety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system during a dynamic event.

Inoperable is defined as:

1. For visual test
 - a. The fluid no longer is supplied to the valve block, or
 - b. Mounting pins are disengaged from the snubber.
 - c. Attachment to foundation or supporting structure is not secure.
2. For functional test
 - a. The snubber (excluding end anchors, i.e., pin-to-pin) does not meet specified test criteria.

The visual inspection frequency is based upon maintaining a constant level of snubber protection to systems. Therefore, the required inspection interval is determined by the number of inoperable snubbers found during an inspection, the total population or group size for each snubber type, and the previous inspection interval. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. Any inspection whose results require a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, and verified by functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which have the same or similar design features directly related to rejection of the snubber by visual inspection, or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration.

PLANT SYSTEMS

BASES

When a snubber is found inoperable through a visual or functional test, an engineering evaluation is performed, in addition to the determination of the snubber mode of failure, in order to determine if any safety-related component or system has been adversely affected by the inoperability of the snubber. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

To provide assurance of snubber functional reliability, a representative sample of the installed snubbers will be functionally tested at 18-month intervals. Observed failures of these sample snubbers shall require functional testing of additional units. When a snubber is found to be inoperable due to failure to lock up or failure to move (i.e., frozen in place), the cause will be evaluated for further action or testing.

In cases where the cause of failure has been identified, additional snubbers that have a high probability for the same type of failure or are being used in the same application that caused the failure shall be tested. This requirement increases the probability of locating inoperable snubbers without testing 100% of the snubbers.

Hydraulic snubbers and mechanical snubbers may each be treated as a different entity for the above surveillance programs.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 161 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 March 1, 1991, Toledo Edison (the licensee) proposed an amendment to the Technical Specifications for the Davis-Besse Nuclear Power Station, Unit 1 (DBNPS). The proposed change involves Technical Specification (TS) 3/4.7.7, "Snubbers," and its bases. The proposed change provides alternative requirements for snubbers based on the guidance contained in NRC Generic Letter (GL) 90-09, "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions," dated December 11, 1990.

By telecon of July 26, 1991, the licensee agreed to a change to TS 4.7.7.1.d. This change moved the requirement for establishing and remedying the cause of rejection for a snubber and for other snubbers that may be generically susceptible within the specification and clarified when a snubber could be classified as acceptable and unacceptable. This made TS 4.7.7.1.d more in accordance with GL 90-09. The change did not significantly change the proposed amendment nor did it change the staff's evaluation of a proposed no significant hazards consideration published in the Federal Register.

2.0 EVALUATION

Technical Specifications (TSs) impose surveillance requirements for visual inspection and functional testing of all safety-related snubbers. A visual inspection is the observation of the condition of installed snubbers to identify those that are damaged, degraded, or inoperable as caused by physical means, leakage, corrosion, or environmental exposure. To verify that a snubber can operate within specific performance limits, the licensees perform functional testing that typically involves removing the snubber and testing it on a specially-designed test stand. Functional testing provides a 95 percent confidence level that 90 percent to 100 percent

of the snubbers operate within the specified acceptance limits. The performance of visual examinations is a separate process that complements the functional testing program and provides additional confidence in snubber operability.

Existing schedules for snubber visual inspections are based only on the number of inoperable snubbers found during the previous visual inspection, irrespective of the size of the snubber population. Licensees having a large number of snubbers find that visual inspection schedule to be excessive. Some licensees have spent a significant amount of resources and have subjected plant personnel to unnecessary radiological exposure to comply with the visual examination schedule.

The alternate inspection schedule contained in GL 90-09 is based on the number of unacceptable snubbers found during the previous inspection in proportion to the sizes of the various snubbers populations or categories. The staff stated in GL 90-09 that the alternate schedule for visual inspections maintains the same confidence level as the existing schedule and generally will allow the licensee to perform visual inspections and corrective actions during plant outages. This will reduce future occupational radiation exposure.

The NRC staff has reviewed the licensee's proposed TS changes and finds that they are consistent with the guidance contained in GL 90-09. Therefore, the license amendment is 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 effluents 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 (56 FR 24219). 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: Jon B. Hopkins, NRR

Date: August 26, 1991