

APPLICATION FOR AMENDMENT

TO

FACILITY OPERATING LICENSE NO. NPF-3

FOR

DAVIS-BESSE NUCLEAR POWER STATION

UNIT NO. 1

Enclosed are forty-three (43) copies of the requested changes to the Davis-Besse Nuclear Power Station Unit No. 1 Facility Operating License No. NPF-3, together with the Safety Evaluation for the requested change.

The proposed changes include Section 3.7.7, Table 3.7-3 and Bases.

By *M. C. Brown*  
Vice President, Nuclear

Sworn and subscribed before me this 1<sup>st</sup> day of Sept., 19 83.

*Cecile E. Gladieux*  
Notary Public

*Cecile E. Gladieux*  
State of Ohio  
My Commission expires 3/24/86

Docket No. 50-346  
License No. NPF-3  
Serial No. 984  
September 1, 1983

Attachment I

- I. Changes to Davis-Besse Nuclear Power Station Unit 1, Appendix A Technical Specifications Section 3.7.7, Table 3.7-2 and Bases.
  - A. Time required to Implement. This change is to be effective upon NRC approval.
  - B. Reason for Change (Facility Change Request 83-080 Rev. A). In Response to Mr. D. G. Eisenhut's letter of November 20, 1980 (Log No. 638) concerning Technical Specification Revision for Snubber Surveillance.
  - C. Safety Evaluation  
(See Attached)
  - D. Significant Hazard Consideration  
(See Attached)

## Safety Evaluation

This Technical Specification Amendment to 3/4.7.7 and B3/4.7.7 embodies several changes to the requirement for snubber surveillance. The revised surveillance program includes visual inspections, and functional testing for both hydraulic and mechanical snubbers. New and/or upgraded inspection and testing acceptance criteria are also proposed by this change.

The safety function of all affected snubbers is that they are required operable to ensure that the structural integrity of the reactor coolant system and all other safety-related systems is maintained during the following seismic or other events initiating dynamic loads. The amendment request for inspection and functional testing will increase the probability of locating inoperable snubbers without testing 100% of the snubbers each inspection period by testing 10% each period and 100% over a period of 10 refueling outages. The additional inspection and testing requirements will increase the total man-rem exposures at Davis-Besse. The requirements for mechanical snubbers alone may result in an estimated additional 30 man-rem exposure per year. In order to reduce this figure whenever practical, visual inspection of snubbers that are inside containment or are in high radiation exposure zones will be performed during plant shutdowns or when radiation levels are lowest. Snubbers located in low radiation areas may be chosen preferentially over those in higher radiation areas when selecting snubbers for additional testing. This sampling program will detect common failures without having to manually test all of the snubbers and, therefore, will aid in keeping radiation exposure ALARA.

The snubber functional testing program must be conducted such that the Technical Specifications regarding system or train operability are not violated. Functional testing of the snubbers will require unpinning of at least one end, which in turn renders the snubber temporarily inoperable. Therefore, system operability may be affected by functional testing of the snubbers unless an evaluation shows that the system or train is operable without the snubber. Various systems are required by the Technical Specifications to have one or two trains operable during Modes 1 through 6. The Action 3.7.7b footnote 2 also now allows snubber removal for 72 hours for normal surveillance testing without declaring the system inoperable.

Functional testing of 10 percent of the snubbers is required every 18 months, which means testing can be performed during refueling outages for inaccessible snubbers. Functional testing may also be performed just prior to maintenance being done on snubbers in order to reduce the time when safety-related systems are unavailable. In this manner, through the use of accurate and proper administrative controls, functional testing of the snubbers can be accomplished without violating the existing Technical Specifications.

The proposed change upgrades the surveillance inspection and testing of snubbers and therefore will increase the confidence level that snubbers on safety-related systems will perform as required to restrain movements

during earthquakes, pipe ruptures and other accident loadings, and still allow normal movements due to thermal expansion. This confidence level will be offset slightly due to the fact that portions of safety-related systems may be inoperable during functional testing of the snubbers. However, the proposed change will not introduce any new adverse consequences or affect the consequences of previously analyzed transients. Therefore, this change does not constitute an unreviewed safety question.

## Significant Hazard Consideration

The attached amendment represents a change to the "Limiting Condition for Operation" and "Surveillance Requirements" and the requested change does not contain a significant hazard. The amendment provides schedules, actions and acceptance criteria for sample testing snubbers.

The proposed request is:

1. To add mechanical snubbers and hydraulic snubbers to the surveillance schedule by reference to the applicable surveillance test specification(s).
2. To add engineering evaluation as means of:
  - a. Determining how snubber inoperability affects a safety related system or component to assure no adverse significant effect or degradation has occurred.
  - b. Verifying system operability with the snubber inoperable.
3. To permit surveillance testing without requiring further engineering evaluation if the time constraints of system operability are met and if visual and functional failure are not involved.
4. To provide a schedule for performing "ACTIONS" in response to inoperability and for performing surveillance visual and functional tests.

The purpose of the surveillance test is to assure that safety-related snubbers are operable. This will in turn ensure that the structural integrity of the reactor coolant system, and other safety-related systems, is maintained during and following seismic or other events initiating dynamic loads.

The proposed revision will allow all safety related snubbers to be tested on a timely basis. Snubbers shall be inspected on a schedule which assures a 95% confidence level that 90 to 100% of all snubbers in the plant will be operable. The revision also permits inspection during normal operation of all accessible snubbers.

The proposed revision would grant an exemption to the functional testing of snubbers greater than 50,000 pounds capacity which are installed in high radiation zones or are in especially difficult to remove locations. In order to functionally test the 8" or 20" snubbers, structural steel must be removed, special scaffolding must be installed and special arrangements are made for use of the overhead polar crane. Also there is increased risk of damage to other pipe and components because of the close proximity of all equipment. In order to be exempt, these units must have operability demonstrated at either the completion of their fabrication or at a subsequent date, e.g., major repairs which require removal.

This new amendment will not sacrifice any safety margin presently existing in current procedures and specifications. Instead, this revision will increase reliability of existing snubbers and thereby, also increase reliability of safety related systems.

The granting of the request would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated 10 CFR 50.92 (c)(1).

The revision would provide data as requested in NUREG 0103 for prevention of snubber failure. The increase in the number of snubbers to be inspected will decrease the probability or consequences of a previously evaluated accident.

2. Create the possibility of a new or different kind of accident previously evaluated 10 CFR 50.92 (c)(2).

All accidents are still bounded by previous evaluations and no new accidents are involved.

3. Involve a significant reduction in a margin of safety 10 CFR 50.92 (c)(3).

The margins of safety assumed in the accident analysis are unaffected by the request.

Therefore, based on the attached safety evaluation and the above, the requested amendment does not contain a significant hazard.

cj b/8