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Nuclear
Operations

January 28, 1992
NRC-91-0152

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

- References:
- 1) Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43
 - 2) Generic Letter 90-09, "Alternate Requirements for
Snubber Visual Inspection Intervals and Corrective
Actions"

Subject: Proposed Technical Specification Change (License
Amendment) - Alternate Snubber Visual Inspection
Intervals in Technical Specification 3/4.7.5
(Implementation of Generic Letter 90-09 Guidance)

Pursuant to 10CFR50.90, Detroit Edison Company hereby proposes to amend Operating License NPF-43 for the Fermi 2 plant by incorporating the enclosed changes into the Plant Technical Specifications (TS). The proposed amendment changes the snubber inspection schedule from one that is based on the total number of snubbers in a given system found inoperable during the previous inspection to one that is based on the number of snubbers within various snubber populations or categories found unacceptable during the previous inspection. This change is a line item TS improvement as described in Reference 2.

Detroit Edison has deviated from the model TS in Reference 2 in order to make the proposed changes compatible with Fermi TS. The differences do not alter the requirements or the intent of the snubber inspection intervals proposed in Reference 2. These differences are described in the attached evaluation.

Detroit Edison has evaluated the proposed Technical Specifications against the criteria of 10CFR50.92 and determined that no significant hazards consideration is involved. The Fermi 2 Onsite Review Organization has approved and the Nuclear Safety Review Group has reviewed the proposed Technical Specifications and concurs with the enclosed determinations. In accordance with 10CFR50.91, Detroit Edison has provided a copy of this letter to the State of Michigan.

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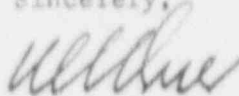
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Detroit Edison requests that this amendment be approved prior to the third refueling outage currently scheduled to commence on September 12, 1992 to ensure that the benefits of this generic letter can be realized as soon as possible.

In addition, Detroit Edison requests that this amendment be effective 30 days after NRC issuance to allow sufficient time to implement these changes.

If you have any questions, please contact Mr. David H. Brown at (313) 586-4213.

Sincerely,



Enclosures: Enclosure 1 - Evaluation of Proposed Change
Enclosure 2 - Proposed Technical Specifications Mark-up
Enclosure 3 - Technical Specification Change Pages

cc: T. G. Colburn
A. B. Davis
R. W. DeFayette
S. Stasek
Supervisor, Electric Operators, Michigan
Public Service Commission - J. R. Padyett

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I, WILLIAM S. ORSER, do hereby affirm that the foregoing statements
are based on facts and circumstances which are true and accurate to
the best of my knowledge and belief.

William S. Orser
WILLIAM S. ORSER
Senior Vice President

On this 28th day of January, 1992, before me
personally appeared William S. Orser, being first duly sworn and says
that he executed the foregoing as his free act and deed.

Rosalie A. Armetta
Notary Public

ROSALIE A. ARMETTA
NOTARY PUBLIC STATE OF MICHIGAN
MONROE COUNTY
MY COMMISSION EXP. NOV. 20, 1995

ENCLOSURE 1

EVALUATION
OF
PROPOSED CHANGE

INTRODUCTION

Technical Specification (TS) 4.7.5.b currently specifies a snubber visual inspection schedule that is based on the number of snubbers in a given system found inoperable during the previous visual inspection, irrespective of the size of the snubber population. The existing TS requirements establish inspection intervals in fractions of the nominal 18 month fuel cycle. These intervals are described in a table contained in TS 4.7.5.b. The purpose of this proposal is to change the snubber visual inspection interval to one that is based on the number of unacceptable snubbers found in proportion to the size of the population or category of snubbers included in the previous inspection. The next visual inspection interval may be twice (up to 48 months maximum), the same, or reduced to two-thirds of the previous inspection interval depending on the number of unacceptable snubbers found in the previous inspection.

PROPOSED TECHNICAL SPECIFICATION CHANGES

The proposed TS changes are attached. The proposed TS 3/4.7.5 incorporates the changes for alternate snubber visual inspection intervals. The proposed TS Table 4.7.5-1 provides the requirements for determining the next inspection interval and replaces the existing table in TS 4.7.5.b. The proposed TS changes are written in accordance with NRC Generic Letter 90-09 (Reference 2) with the exceptions described below. Additionally, TS Bases 3/4.7.5 has been changed to reflect the changes in TS 3/4.7.5.

Changes to the text of TS 3/4.7.5 have been made which, while consistent with the intent and objectives of Reference 2, deviate from the wording of the changes for alternative snubber visual inspection intervals used in the model TS contained in Reference 2. In addition, a typographical error was corrected in TS Bases 3/4.7.5.

These changes are as follows:

1. TS 4.7.5.b

The proposed TS 4.7.5.b has been reworded to provide consistency with the nomenclature used in the rest of TS 4.7.5.b. If the exact wording of the changes for alternate snubber visual inspection intervals in

the Reference 2 model TS was incorporated into Fermi 2 TS 4.7.5.b, "Visual Inspections", it would read as follows:

"Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table 4.7.5-1. The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table 4.7.5-1 and the first inspection interval determined using this criteria shall be based upon the previous inspection interval as established by the requirements in effect before Amendment ____." (The amendment number will be the amendment that implements this change.)

The proposed TS 4.7.5.b reads as shown below. The underlined word, "category", indicates a deviation from the change presented in the Reference 2 model TS.

"Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table 4.7.5-1. The visual inspection interval for each category of snubber shall be determined based upon the criteria provided in Table 4.7.5-1. The first inspection interval determined using this criteria shall be based upon the previous inspection interval as established by the requirements in effect before Amendment ____." (The amendment number will be the amendment that implements this change.)

The word "category" has been substituted for "type" to provide consistency with the wording used in the discussion of inaccessible and accessible snubber categories contained in the first two sentences of proposed TS 4.7.5.b and in the proposed TS Table 4.7.5-1. The model TS change for TS 4.7.5.b states that the snubber visual inspection interval for each "type" of snubber shall be determined by Table 4.7.5-1. "Type", as defined in Fermi 2 TS 4.7.5.a, refers to snubbers of the same design and manufacturer. Snubber "type" is to be used for snubber functional testing because snubber functional testing differences are more readily grouped by design and manufacturer. However, the type of snubber is not a factor in determining the snubber visual inspection interval as defined in the Reference 2 model snubber visual inspection interval table and the proposed TS Table 4.7.5-1. Snubber population or category is the determining factor. Therefore, when used in the context of snubber visual inspections, it is acceptable to substitute "category" for "type".

The third sentence of the above model TS has been broken into two sentences. The third sentence of the model TS describes two requirements: (1) that the snubber visual inspection intervals are determined by Table 4.7.5-1 and, (2) that the first snubber inspection interval shall be based on the previous inspection interval established by the TS in effect prior to the approval of this amendment. The proposed TS breaks the third sentence of the model TS into two sentences to separate the two requirements. This change provides assurance that the reader of this TS will understand that two separate requirements exist and avoid the possibility of misreading the requirements. There is no change to the wording of the requirements other than to accommodate the punctuation changes required to split the original sentence into two sentences.

2. TS 4.7.5.c

The proposed TS 4.7.5.c has been reworded to provide consistency with the existing nomenclature used in the rest of TS 3/4.7.5. If the exact wording of the changes for alternate snubber visual inspection intervals in the Reference 2 model TS was incorporated into Fermi 2 TS 4.7.5.c, "Visual Inspection Acceptance Criteria", it would read as follows:

"Visual inspections shall verify that: (1) there are no visible indications of damage or impaired OPERABILITY and (2) attachments to the foundation or supporting structure are secure, and (3) fasteners for attachment of the snubber to the component and to the snubber anchorage are secure. Snubbers which appear inoperable as a result of visual inspections shall be classified as unacceptable and may be reclassified acceptable for the purpose of establishing the next visual inspection interval, provided that: (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers irrespective of type on that system that may be generically susceptible; and (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specifications 4.7.5f. For those snubbers common to more than one system, the OPERABILITY of such snubbers shall be considered in assessing the surveillance schedule for each of the related systems. A review and evaluation shall be performed and documented to justify continued operation with an unacceptable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the ACTION requirements shall be met."

The proposed TS 4.7.5.c, "Visual Inspection Acceptance Criteria" reads as shown below. The underlined words and phrases indicate deviations from the changes presented in the Reference 2 model TS and nomenclature changes from the current Fermi 2 TS 4.7.5.c:

"Visual inspections shall verify that: (1) there are no visible indications of damage or impaired OPERABILITY and (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of visual inspections shall be classified as unacceptable and may be reclassified acceptable for the purpose of establishing the next visual inspection interval, provided that: (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers that may be generically susceptible; and (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specifications 4.7.5f. For those snubbers common to more than one system, the OPERABILITY of such snubbers shall be considered in assessing the OPERABILITY of each of the related systems. A review and evaluation shall be performed and documented to justify continued operation with an unacceptable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the ACTION requirements shall be met."

The word "functional" has been substituted for "secure". "Functional" better describes the condition of the foundation/supporting structure attachments and component/snubber anchorage fasteners required for a successful visual inspection of a snubber. This is a nomenclature change from the existing Fermi 2 TS and is not part of the changes for alternate snubber visual inspection intervals in Reference 2 model TS. It is consistent with the nomenclature used in the current Standard Technical Specifications format.

The phrase "OPERABILITY of" is substituted for the phrase "surveillance schedule" to better define that equipment operability is being assessed when snubbers common to more than one system are declared inoperable. This is a nomenclature change from the existing Fermi 2 TS and is not part of the changes for alternate snubber visual inspection intervals in Reference 2 model TS. However, this change is needed because the Reference 2 changes no longer require a surveillance schedule for each system.

The phrase "irrespective of type on that system" in the second sentence of the current TS 4.7.5.c has been removed. This phrase is currently included in the requirement that the cause of rejection for

a particular snubber be remedied, not only for the affected snubber, but for all other snubbers on the same system that may be generically susceptible. As stated above, the reference to "type" is being removed from the snubber visual inspection requirements to maintain consistent nomenclature in the snubber visual inspection requirements. The phrase is not needed because the wording requires that the cause of the rejection be remedied "for other snubbers that may be generically susceptible". If the cause of the rejection is generic, then the type of snubber has no bearing on determining which snubbers are affected. The reference to "system" is eliminated because the proposed snubber visual inspection intervals are based on snubber population or category.

3. TS Bases 3/4.7.5

A typographical error was found in the the description of the snubber functional testing methods in TS Bases 3/4.7.5. Method "1" states that an additional 10% of a type of snubber will be tested for each functional testing failure. This does not agree with TS 4.7.5.e.1 which states that an additional 5% of that type of snubber shall be functionally tested for each failure. TS Bases 3/4.7.5 has been corrected to agree with TS 4.7.5.e.1.

DISCUSSION

The snubber TS imposes surveillance requirements for functional testing and visual inspection of all safety related snubbers. Functional testing verifies that a snubber can operate within specific performance limits. Functional testing involves removing the snubber and testing it on a specially designed test stand. Functional testing provides a 95 per cent confidence level that 90 to 100 per cent of the snubbers operate within the specified acceptance limits. A visual inspection is the observation of the condition of installed snubbers to identify those that are damaged, degraded, or inoperable due to external physical damage, leakage, corrosion, or environmental exposure. The visual examination is a separate process that complements the functional testing program and provides additional confidence in snubber operability.

Plants having a large snubber population, such as Fermi 2, find that the current visual inspection schedule is excessively restrictive. According to Reference 2, some plants have spent significant resources and have subjected plant personnel to unnecessary radiological exposure to comply with the visual examination requirements.

As stated in Reference 2, the NRC has developed an alternative inspection schedule based on the number of unacceptable snubbers found during the previous inspection, the total population or category size for each snubber type, and the previous inspection interval. A snubber is considered unacceptable if it fails to meet its visual inspection acceptance criteria. The licensee shall perform and document a review and evaluation to justify continued operation with an unacceptable snubber. If continued operation cannot be justified, the licensee shall declare the snubber inoperable and shall meet the applicable action requirements. To determine the next surveillance interval, the licensee may reclassify the unacceptable snubber as acceptable if: (1) The cause of the rejection is determined and corrected for the affected snubber and other snubbers that may be generically susceptible and; (2) The affected snubber is functionally tested in the as-found condition and determined operable. Snubbers may be categorized as accessible or inaccessible and may be examined separately or jointly. The licensee must make and document that decision before any inspection and use that decision as the basis upon which to determine the next inspection interval for that category.

Use of this alternate inspection schedule will reduce personnel radiation exposure because it will be possible to reduce the number of inspections through extended inspection intervals and by allowing the added flexibility to schedule inspections during refueling outage timeframes. Extended surveillance intervals will also be cost effective because reducing the number of inspections will reduce inspection man-hours and the associated material commitments.

EVALUATION

This proposal only changes the method by which the snubber visual inspection intervals are determined and clarifies that, if continued operation cannot be justified with an unacceptable snubber, the snubber is declared inoperable and the TS 3/4.7.5 action requirements shall be followed. There is no change to the snubber functional testing intervals. This change does not alter the design, function, or operation of the snubbers or plant systems on which they are installed. This proposal does not change any accident analysis assumptions. The confidence level associated with this change is equivalent to that provided by the existing snubber visual inspection and functional testing requirements. Therefore, there is no reduction in snubber reliability. As discussed above, this change will reduce personnel radiation exposure because it will be possible to reduce the number of inspections through extended inspection intervals and by

allowing the added flexibility to schedule inspections during refueling outage timeframes. Extended surveillance intervals will also be cost effective because reducing the number of inspections will reduce inspection man-hours and associated material commitments. Based on the snubber visual inspection results of the first and second refueling outages, there is a high probability that 100% snubber visual inspections would only be required every other refueling outage. This change represents an enhancement to plant operations and is, therefore, acceptable.

SIGNIFICANT HAZARDS CONSIDERATION

In accordance with 10CFR50.92, Detroit Edison has made a determination that the proposed amendment involves no significant hazards considerations. To make this determination, Detroit Edison must establish that operation in accordance with the proposed amendment would not: 1) involve a significant increase in the probability or consequences of an accident previously evaluated, or 2) create the possibility of a new or different kind of accident from any accident previously evaluated, or 3) involve a significant reduction in a margin of safety.

The proposed amendment changes the snubber visual inspection interval in TS 3/4.7.5. It changes the snubber visual inspection interval from one based on the number of snubbers in a given system found inoperable during the previous visual inspection, irrespective of the snubber population size, to one that is based on the number of unacceptable snubbers found in proportion to the size of the population or category of snubbers included in the previous inspection. Editorial changes are also made to provide consistent nomenclature, clarify requirements, and ensure that the snubber TS and TS bases agree. These changes are consistent with the objectives and intent of Reference 2. These changes will enhance plant operations by extending snubber visual inspection intervals with a subsequent reduction in personnel radiation exposure and inspection costs.

This amendment:

- 1) Does not involve a significant increase in the probability or consequences of an accident previously evaluated. Snubbers are installed to maintain the structural integrity of systems and components which mitigate the consequences of previously analyzed accidents. This amendment does not alter the design, function, or operation of the snubbers or the systems in which they are

installed. This amendment does not change the snubber functional testing requirements. As stated in Reference 2, the proposed changes were developed by the NRC staff and maintain the same level of snubber reliability as the existing visual snubber inspection schedule. Therefore, the reliability of the snubbers is not reduced.

Providing consistent nomenclature and clarifying requirements in the proposed TS 3/4.7.5 meets the objectives and intent of Reference 2. Changes to TS Bases 3/4.7.5 are consistent with the guidance in Reference 2. A typographical error is also corrected in TS Bases 3/4.7.5. These changes are, therefore, considered to be editorial in nature.

- 2) Does not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change does not alter the configuration of the facility, plant operations, or the accident analysis assumptions. No new mode of failure is being created because this change does not degrade the design, operation, or maintenance of the plant. As stated in Reference 2, the proposed TS change maintains the same level of snubber reliability as the existing snubber visual inspection interval. The editorial changes in TS 3/4.7.5 meet the objectives and intent of Reference 2. The changes to TS Bases 3/4.7.5 are consistent with the guidance in Reference 2. The correction of the typographical error in TS Bases 3/4.7.5 is an editorial change.
- 3) Does not involve a significant reduction in a margin of safety. The proposed amendment incorporates the surveillance requirements for the snubber visual inspection interval in accordance with the guidance in Reference 2. As stated in Reference 2, the proposed snubber visual inspection interval maintains the same confidence level as the existing snubber visual inspection interval. The editorial changes in TS 3/4.7.5 meet the objectives and intent of Reference 2. The changes to TS Bases 3/4.7.5 are consistent with the guidance in Reference 2. The correction of the typographical error in TS Bases 3/4.7.5 is an editorial change.

Based on the above, Detroit Edison has determined that the proposed amendment does not involve a significant hazards consideration.

ENVIRONMENTAL IMPACT

Detroit Edison has reviewed the proposed Technical Specification changes against the criteria of 10CFR51.22 for environmental considerations. The proposed change does not involve a significant

hazards consideration, nor significantly change the types or significantly increase the amounts of effluents that may be released offsite, nor significantly increase individual or cumulative occupational radiation exposures. Based on the foregoing, Detroit Edison concludes that the proposed Technical Specifications do meet the criteria given in 10CFR1.22(c)(9) for a categorical exclusion from the requirements for an Environmental Impact Statement.

CONCLUSION

Based on the evaluation above: 1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and 2) such activities will be conducted in compliance with the Commission's regulations and proposed amendments will not be inimical to the common defense and security or to the health and safety of the public.