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March 26, 1990
NRC-90-0057

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

Subject: Proposed Technical Specification Change (License Amendment) - Snubbers (3/4.7.5)

Pursuant to 10CFR50.90, Detroit Edison Company hereby proposes to amend Operating License NPF-43 for the Fermi 2 plant by incorporating the enclosed change into the Plant Technical Specifications. While conducting snubber visual inspections in accordance with Technical Specification (TS) 4.7.5.b during the first refueling outage, two inoperable mechanical snubbers were discovered. The snubbers' failure mechanism was clearly identified as condensation which dripped onto the failed snubbers from an uninsulated section of piping. The falling condensation eventually entered the snubbers' bodies and corroded their internals. The failed snubbers' were replaced and the replacement snubbers were successfully tested. To prevent recurrent failures protective sleeves were installed on the replacement snubbers in accordance with an Engineering Design Change. However, as a result of these failures, TS 4.7.5.b requires that the subsequent visual inspection period for all snubbers on the same system be reduced from 18 months $\pm$ 25% to 6 months $\pm$ 25%. Thus, the next snubber visual inspection must be performed by July 10, 1990. Since Fermi 2 does not have a scheduled outage until its second refueling outage (currently scheduled for March 1991) and the subject snubbers are located inside the drywell which makes them inaccessible during power operation, the next visual inspection would require a plant shutdown to perform.

DECo believes a plant shutdown and associated transient operation to perform snubber visual inspections are unnecessary if the cause of a snubber visual inspection failure has been clearly identified, isolated and corrected to prevent its recurrence. In general, industry Technical Specifications contain provisions for snubber visual inspections failures which if satisfied do not penalize a plant by shortening their next visual inspection interval. The Fermi 2 TS unnecessarily penalizes us by requiring a shortened visual inspection frequency even if a snubber is replaced and/or modified as a result of corrective actions. Therefore, the proposed TS change corrects this situation while maintaining adequate corrective actions.

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In order to avoid an unnecessary plant shutdown, we are requesting the review and approval of this proposed amendment by July 9, 1990.

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 determinstions. In accordance with 10CFR50.91, Detroit Edison has provided a copy of this letter to the State of Michigan.

If you have any questions, please contact Mr. Gordon Nader at (313) 586-4513.

Sincerely,

Ralph Sylvia

Enclosure

cc: A. B. Davis
R. W. DeFayette
W. G. Rogers
J. F. Stang
Supervisor, Electric Operators, Michigan
Public Service Commission - J. Padgett

I, B. RALPH SYLVIA, 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.

B. Ralph Sylvia

B. RALPH SYLVIA
Senior Vice President

On this 26th day of March, 1990, before me personally appeared B. Ralph Sylvia, being first duly sworn and says that he executed the foregoing as his free act and deed.

Rosalie A. Arnetta

Notary Public

ROSALIE A. ARNETTA
Notary Public, Monroe County, MI
My Commission Expires Jan. 11, 1992

INTRODUCTION

Snubbers are provided on Category I piping systems, where necessary, to prevent shock forces from causing damaging motion and to allow for the normal thermal motion of the piping system.

Technical Specification (TS) 4.7.5.b requires that snubber visual inspections be performed at intervals based on the number of snubbers which failed their last visual inspection. For example, if two snubbers failed their last visual inspection in accordance with TS 4.7.5.b the next visual inspection is required within 6 months ±25%. TS 4.7.5.c contains visual inspection acceptance criteria and provisions which if satisfied allow snubbers that have failed their visual inspections to be considered operable for the purposes of establishing the next visual inspection interval. These provisions if satisfied prevent unnecessary mid-cycle plant shutdowns to perform snubber visual inspections. However, Detroit Edison believes the Fermi 2 existing provisions are overly restrictive, because they specifically require successful testing of the affected snubber in the as-found condition. The existing provisions do not allow for testing of replaced or modified snubbers for purposes of establishing the next visual inspection interval. The proposed change corrects this situation.

EVALUATION

TS 4.7.5.c has the following provisions which if satisfied would allow snubbers that failed their visual inspections to be considered OPERABLE for the purpose of establishing their next visual inspection:

> "Snubbers which appear inoperable as a result of visual inspections may be determined OPERABLE 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 a system that may be generically susceptible; and (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 4.7.5.f."

Please note that items (1) and (2) must be satisfied to consider snubbers OPERABLE for the purpose of establishing their next visual inspection.

Additionally, TS 4.7.5.h "Functional Testing of Repaired and Replaced Snubbers" requires the following:

> "Snubbers which fail the visual inspection or the functional test acceptance criteria shall be repaired or replaced. Replacement snubbers and snubbers which have repairs which might affect the functional test result shall be tested to meet the functional test criteria before installation in the unit."

Considering the above stated TSs, it is unnecessary to require provisions (1) and (2) to be satisfied because collectively they needlessly penalize snubber visual failures in which corrective actions have replaced and/or repaired the failed snubber. If a visual inspection determines that a snubber is inoperable and this snubber does not pass its as-found test (provision (2)), the snubber is required to be replaced and/or repaired and tested in accordance with TS 4.7.5.h. In this situation if the cause of the failure is established and remedied for all susceptible snubbers (as required by provision (1)), it is unnecessary to be penalized by this snubber's visual inspection failure because provision (2) cannot be satisfied. Provision (2) should not be required because of the corrective action required by TS 4.7.5.h, provided provision (1) is satisfied. Therefore, if provision (1) is satisfied it is unnecessary to also require that provision (2) be satisfied because TS 4.7.5.h requires replacement and/or repair and associated testing of snubbers which failed their visual inspection.

Additionally, if provision (2) is satisfied it is unnecessary to require provision (1) to be satisfied because the snubber has successfully passed its functional test. The cause of the visual inspection failure (if valid) was not significant enough to affect the snubber's functionality. Operability is based on the ability of equipment to perform its function per the definition of operability. Therefore, if the snubber's ability to perform its function is demonstrated, it should be considered operable for the purpose of establishing inspection intervals.

Therefore, based on the above, the proposed TS changes the "and" to a "or" (See attached proposed TS). Please note that this change is consistent with other licensed facilities' Snubber Technical Specification, even though it is different than the latest Standard Technical Specification.

The proposed change will reduce the number of mid-cycle plant shutdowns to perform snubber visual inspections. This lowers the probability of operational events which are more likely to occur

during transient operation (heatup and cooldown) than at full power steady state operation.

TS 4.7.5.b requires all snubbers of the same type on the same system be inspected if any snubbers fail their visual inspections and do not meet the provisions of (1) and (2). Subjecting personnel to a radiation environment for the inspection of numerous snubbers which have not exhibited a failure tendency because of a visual inspection failure of a snubber, whose failure mechanism is remedied and isolated or that has passed its functional test, would seem to be counter to the ALARA philosophy.

The Bases has been changed to correct a typographical error. TS 4.7.5.e.1 only requires an additional retesting of 5%, not 10%, of the type of snubbers which did not meet their functional test acceptance criteria.

SUMMARY OF ABOVE

- For the purpose of establishing the next snubber visual inspection interval, it is not necessary to require both provisions of TS 4.7.5.c to be satisfied. Provision (2) is not required if provision (1) is satisfied because TS 4.7.5.h requires that the snubbers which could not pass their as-found functional test be replaced and/or repaired and tested accordingly. Thus, in this situation, the cause is clearly identified and remedied, and the effect (failed snubber) has been corrected and retested such that there is more than sufficient assurance that the problem will not reoccur. Provision (1) is not required if provision (2) is satisfied because the cause of the visual inspection failure (if valid) is not significant enough to prevent a snubber from successfully passing its function test. Since operability is based on the ability of a component to perform its function if the functional test demonstrates the snubber can perform its function, the snubber should be considered operable for the purpose of establishing inspection intervals.

- The proposed change lowers the probability of operational events that are more likely to occur during transient operation (heatup and cooldown) than at full power steady state operation because less shutdowns are required to perform visual inspections.

- The proposed change will reduce the amount of radiation exposure to plant personnel by requiring fewer snubber visual inspections.

o The proposed change is consistent with other licensed nuclear facilities' Snubber Technical Specification.

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.

1) The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated because the proposed TS requirements, in addition to existing TS requirements, still ensure that complete corrective actions are implemented. For the purpose of establishing the next snubber visual inspection interval, it is not necessary to require both provisions of TS 4.7.5.c to be satisfied. Provision (2) is not required if provision (1) is satisfied because TS 4.7.5.h requires that the snubbers which could not pass their as-found functional test be replaced and/or repaired and tested accordingly. Thus, in this situation, the cause is clearly identified and remedied, and the effect (failed snubber) has been corrected and retested such that there is more than sufficient assurance that the problem will not reoccur. Provision (1) is not required if provision (2) is satisfied because the cause of the visual inspection failure (if valid) is not significant enough to prevent a snubber from successfully passing its functional test. If a snubber can perform its function, it should be considered operable. The Bases change is considered to be administrative because it corrects a typographical error. This correction is consistent with TS 4.7.5.e.1. Therefore, the proposed change does not significantly increase the probability or consequences of an accident previously evaluated because the proposed TS requirements, in addition to existing TS requirements, still ensure complete corrective actions are implemented if required.

2) The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated because the proposed change does not introduce a new mode of plant operation or involve a physical modification to the plant.

3) The proposed change does not involve a significant reduction in a margin of safety because, as described in Item 1 above, the proposed TS requirement, in addition to existing TS requirements, still ensures that corrective actiors are implemented. The proposed change will reduce the number of mid-cycle plant shutdowns to perform snubber visual inspections. This lowers the probability of operational events which are more likely to occur during transient operation (heatup and cooldown) than at full power steady state operation. The proposed change will reduce the amount of radiation exposure to plant personnel by requiring fewer snubber visual inspections. The Bases change is considered to be administrative because it corrects a typographical error. This correction is consistent with TS 4.7.5.e.1. Therefore, the margin of safety has not been significantly reduced because the change will reduce the amount of radiation exposure to plant personnel, lower the probability of operational events, and still ensure adequate correctives actions are implemented, if required.

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 change 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 10CFR51.22(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.

PROPOSED CHANGE