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 FACIL:50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana & 05000315  
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SUBJECT: Application for amend to License DPR-58, modifying Tech Spec  
 3/4.7.8 re snubber inoperability.

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AEP:NRC:1094

Donald C. Cook Nuclear Plant Unit 1  
Docket No. 50-315  
License No. DPR-58  
EMERGENCY TECHNICAL SPECIFICATION CHANGE:  
SNUBBER INOPERABILITY

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

Attn: T. E. Murley

September 1, 1989

Dear Dr. Murley:

This letter and its attachments constitute an application for an emergency Technical Specification (T/S) change for the Donald C. Cook Nuclear Plant Unit 1. Specifically, we propose to modify T/S 3/4.7.8 (snubbers) such that functional testing of a snubber installed on the pressurizer spray line may be delayed until the next time the unit is brought to Mode 5. The reasons for the change and our evaluation concerning significant hazards consideration are provided in Attachment 1. The proposed revised T/S page is included in Attachment 2.

We believe that the proposed changes will not result in (1) a significant change in the types of effluents or a significant increase in the amounts of any effluent that may be released offsite, or (2) a significant increase in individual or cumulative occupational radiation exposure.

This change has been reviewed by the Plant Nuclear Safety Review Committee and will be reviewed by the Nuclear Safety Design Review Committee at its next regularly scheduled meeting.

In compliance with the requirements of 10 CFR 50.91(b)(1), copies of the letter and its attachments have been transmitted to Mr. R. C. Callen of the Michigan Public Service Commission and to the Michigan Department of Public Health.

As described in Attachment 1, Unit 1 is presently in a 72-hour T/S action statement because we neglected to perform functional testing of a snubber located on the pressurizer spray line (Ref. snubber No. 1 in T/S Table 3.7-4). The 72-hour action statement expires at

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0800 hours on Monday, September 4. After this time, the plant must enter T/S 3.0.3 which will allow us one hour to begin a unit shutdown. Per the instructions of your staff given on September 1, we are requesting a temporary waiver of compliance be granted to us before expiration of the action statement time limit in order to allow time for the NRC to process this emergency T/S change request.

Our significant hazards analysis contained in Attachment 1 is preliminary based on our best engineering judgment at the time of this writing. As described in Attachment 1, we will complete our evaluation of the change prior to the expiration of the action statement. If our evaluation cannot support the engineering judgment, we will shut down and perform the snubber testing as required by the present T/S.

This document has been prepared following Corporate procedures that incorporate a reasonable set of control to ensure its accuracy and completeness prior to signature by the undersigned.

Sincerely,



M. P. Alexich  
Vice President

ldp

cc: D. H. Williams, Jr.  
W. G. Smith, Jr. - Bridgman  
R. C. Callen  
G. Charnoff  
A. B. Davis  
NRC Resident Inspector - Bridgman  
NFEM Section Chief

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ATTACHMENT 1 TO AEP:NRG:1094  
REASONS AND 10 CFR 50.92 ANALYSIS FOR  
CHANGES TO THE DONALD C. COOK NUCLEAR PLANT  
UNIT 1 TECHNICAL SPECIFICATIONS

T/S 3/4.7.8 contains the requirements for snubbers. The snubbers are demonstrated operable by a combination of visual and functional tests as delineated in the T/S. If a snubber is declared inoperable in an applicable mode, the snubber must be restored to operable status or replaced within 72 hours. After this time, the system which is supported by the snubber must be declared inoperable and the T/S action statement for that system followed.

In August 1987, snubber 1-GRC-S519 (No. 1 on Table 3.7-4) was functionally tested per the requirements of T/S 4.7.8.c. This snubber is located on the pressurizer spray line inside the pressurizer enclosure. One of the requirements for the snubber was that it lock up at velocities between approximately 0.5 and 15.1 in/min. The snubber marginally failed this requirement, not locking up until 16.3 in/min. The snubber had been in service approximately 8 years since its last functional test. Per our own requirements, the snubber was completely rebuilt. The snubber then passed its functional test requirements and was returned to service.

T/S 4.7.8.c requires that a snubber which failed a previous functional test must be retested during the next test period. The next required test period was during the past Unit 1 outage, in the spring of this year. The snubber passed a visual inspection during the outage, but was not functionally tested. This oversight was recognized on September 1 and the snubber was declared inoperable at 0800 hours. The pressurizer enclosure in which the snubber is located is not accessible during plant operations as indicated in T/S Table 3.7-4. Because of a combination of extreme temperatures in the area and ALARA considerations, the plant should be brought to Mode 5 (cold shutdown) in order to remove the snubber for testing. Once the 72-hour action statement for the inoperable snubber expires the action requirements of T/s 3.4.10.1 (Structure Integrity - ASME Code Class 1, 2 and 3 Components) will become effective. Since there are no action requirements which say what to do if a Class 1 component is found inoperable during power operation, the requirements of T/S 3.0.3 will require that we begin a shutdown within one hour. Therefore, shutdown of the unit must commence by 0900 hours on Monday, September 4.

We are requesting that relief be granted from the requirement to functionally test snubber 1-GRC-S519 until the next time the unit enters Mode 5. This is reflected in our proposed T/S by addition of a footnote to T/S Table 3.7-4.

We believe that the delaying of the functional test for snubber 1-GRC-S519 will not adversely impact public health and safety. The snubber requirements involving lockup velocity are intended to protect the pressurizer spray line against the consequences of an earthquake. As discussed in Chapter 2.5 of our Updated FSAR, the Cook Nuclear Plant is located in a region of very low seismic activity. No major earthquakes have had epicenters closer than

about 400 miles to the plant site. No shocks within 50 miles of the site have been large enough to cause significant structural damage.

The snubber's failure in 1987 was only a marginal failure. The snubber locked up at 16.3 in/min, versus a maximum 15.1 in/min requirement. The value of 15.1 in/min is a conservative limit selected by us for this snubber. (The specific value is not included in the T/S.) In our judgement, the measured value of 16.3 in/min would not have significantly impacted the results of the piping analysis for a design basis earthquake. We are confirming this statement through additional evaluation. We will complete this evaluation prior to expiration of the 72-hour action statement. If our judgement proves incorrect, we will shut down and perform the testing. It is noted that the snubber had been in service approximately 8 years prior to the failure in 1987. The service interval until the time the snubber will be functionally tested next will be much shorter, less than 5 years. Additionally, we note that the snubber successfully passed a visual exam during the 1989 outage. No indication of leaks or disturbances were detected.

For the reasons stated above, we believe that delaying the required functional test can be accomplished without impacting public health and safety. We believe an emergency T/S change is warranted because failure of the Commission to act in a timely way would result in shutdown of the plant and imposition of unnecessary thermal cycling of the unit. Per your staff's instructions, we are requesting a temporary waiver of compliance in conjunction with the emergency T/S change request to allow your staff time to process the change in an orderly fashion.

Per 10 CFR 50.92, a proposed amendment will not involve significant hazards consideration if the proposed amendment does not:

- (1) involve a significant increase in the probability or consequences of a previously evaluated accident,
- (2) create the possibility of a new or different kind of accident from any previously analyzed or evaluated, or
- (3) involve a significant reduction in a margin of safety.

#### Criterion 1

The snubber failure in 1987 was only marginal. In our judgement, the measured value of 16.3 in/min would not significantly impact the results of the piping system analysis for the design basis earthquake. The plant is located in a region of very low seismic activity, so the probability of an earthquake is very low. The snubber successfully passed a visual exam in the spring of this year, giving some confidence that it should function as required.



For these reasons, we believe the change will not involve a significant increase in the probability or consequences of a previously evaluated accident, nor should it involve a significant reduction in a margin of safety.

#### Criterion 2

The change involves no physical modifications to the plant, nor any changes in plant operation. Therefore, the change should not create the possibility of a new or different kind of accident from any previously analyzed or evaluated.

#### Criterion 3

See Criterion 1 above.

Lastly, we note that the Commission has provided guidance concerning the determination of significant hazards by providing examples (48 FR 14870) of amendments considered not likely to involve significant hazards consideration. The sixth of these examples refers to changes which may result in some increase to the probability or consequences of a previously analyzed accident or may reduce in some way a safety margin, but where the results of the change are within acceptable limits. For the reasons given above, we believe the delay in performing the snubber functional test will not adversely impact public health and safety. We therefore conclude that the example cited is relevant and that the change should not involve significant hazards considerations.

