

OLIVER D. KINGSLEY, JR. Vice President Nuclear Operations

July 25, 1988

U. S. Nuclear Regulatory Commission Washington, D. C. 20555

Attention: Document Control Desk

Gentlemen:

SUBJECT: Grand Gulf Nuclear Station

Unit 1

Docket No. 50-416 License No. NPF-29

Proposed Amendment to the Operating

4001 Wohnk 1/1 #150 0067

License (PCOL-88/12)

AECM-88/0149

System Energy Resources, Inc. (SERI) is requesting by this submittal an amendment to License NPF-29 for Grand Gulf Nuclear Station Unit 1. This amendment request justifies deletion of the reject line and region of Technical Specification Figure 4.7.4-1. This amendment request also deletes the third sample plan of Technical Specification 4.7.4.e.3). In support of the third refueling outage, it is requested that the NRC provide SERI with a response to this amendment request prior to February 15, 1989.

In accordance with the provisions of 10 CFR 50.4 and 50.30, the signed origina! of the requested amendment is enclosed and the appropriate copies will be distributed. The attachment provides the technical justification and discussion to support the requested amendment. This amendment has been reviewed and accepted by the Plant Safety Review Committee and the Safety Review Committee.

Based on the guidelines presented in 10 CFR 50.92, SERI has concluded that this proposed amendment involves no significant hazards considerations.

In accordance with the requirements of 10 CFR 170.21, an application fee of \$150 is attached to this letter.

ODK:bms

Attachments: 1. Remittance of \$150 Application Fee

2. Affirmation per 10 CFR 50.30

3. GGNS ?COL-88/12

cc: (See Next Page)

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BEFORE THE UNITED STATES NUCLEAR REGULATORY COMMISSION LICENSE NO. NPF-29 DOCKET NO. 50-416 IN THE MATTER OF MISSISSIPPI POWER & LIGHT COMPANY and SYSTEM ENERGY RESOURCES, INC. and SOUTH MISSISSIPPI ELECTRIC POWER ASSOCIATION AFFIRMATION I, O. D. Kingsley, Jr., being duly sworn, state that I am Vice President, Nuclear Operations of System Energy Resources, Inc.; that on behalf of System Energy Resources, Inc., and South Mississippi Electric Power Association I am authorized by System Energy Resources, Inc. to sign and file with the Nuclear Regulatory Commission, this application for amendment of the Operating License of the Grand Gulf Nuclear Station; that I signed this application as Vice President, Nuclear Operations of System Energy Resources, Inc.; and that the statements made and the matters set forth therein are true and correct to the best of my knowledge, information and perjet. STATE OF MISSISSIPPI COUNTY OF HINDS SUBSCRIBED AND SWORN TO before me, a Notary Public, in and for the County and State above named, this 25th day of (SEAL) My commission expires: My Commission Expires Aug. 5, 1991 J16AECM88072001 - 4

## A. SUBJECT

- 1. NPE 87-05: GGNS Technical Specification 4.7.4.e Sample Plan 2 and 3
- 2. Affected Technical Specifications: pages 3,4 7-11, 3/4 7-14 and B 3/4 7-3.

## B. DISCUSSION

- 1. Technical Specification 4.7.4.e sample plan 2 is based on the Wald sequential sampling plan. Snubber test results for a given type are plotted on Technical Specification Figure 4.7.4-1, where N is the number of snubbers tested and C is the number of test failures. As seen from Figure 4.7.4-1, a plot of test results either 1) crosses the accept line into the accept region, at which time testing of that snubber type can be terminated, 2) remains in the continue testing region, where testing of that snubber type continues, or 3) crosses the reject line into the reject region, at which time all snubbers of that type are required to be tested.
- The reject region of Figure 4.7.4-1 provides the possibility of rejecting a good population of snubbers and requiring 100% functional testing of the snubber population. 100% functional testing requires increased radiological exposure of personnel.
- 3. It is proposed that GGNS Technical Specification 4.7.4.e.2) and Figure 4.7.4-1 be changed to delete reference to the reject region. Additionally, the third sample plan of Technical Specification 4.7.4.e.3) is deleted by the proposed change. A change is also provided for the bases consistent with the proposed Technical Specification changes.

## C. JUSTIFICATION

- 1. The NRC is aware of the proposed changes through ANSI/ASME OM-4 participation. In addition, the NRC has previously reviewed the proposed changes by granting similar technical specification changes (i.e., Washington Public Power Supply System, Nuclear Plant No. 2 dated December 1, 1987 and Duke Power Company, McGuire Nuclear Station dated April 9, 1985).
- 2. The proposed change was developed using Wald's sequential sampling plan. An evaluation of the Wald's sequential sampling plan formulas for acceptance and rejection numbers shows that reducing the probability of rejecting a good population to zero while holding constant the probability of accepting a bad population has the effect of eliminating the reject line without significantly changing the accept line. As such, acceptance is independent of rejection, and the proposed change maintains the current acceptance criteria while eliminating the potential for excessive snubber testing. These concepts were used in the development of the draft ANSI/ASME OM-4 document (Revision 2, Draft 9/86).

- 3. The acceptance criteria in the Wald's sequential sampling plan is essentially independent of the rejection criteria. However, a siight dependence does exist. The elimination of the rejection criteria without a corresponding change to the acceptance criteria will result in a very small increase in the probability of accepting a bad population. For the change being proposed, SERI has determined this negligible increase in probability to be less than 0.003. This determination was made by setting the probability of rejecting a good population to zero and then calculating the change in the probability of accepting a bad population required to duplicate the accept line of Technical Specification Figure 4.7.4-1.
- 4. During the first Grand Gulf Nuclear Station refueling outage (RFO1) 3.2 man-rem exposure was accumulated for mechanical snubber inspections using Technical Specification 4.7.4.e sample plan 2 (i.e., the "37 Plan"). During RFO2, 29 man-rem was accumulated performing mechanical snubber inspections using the 37 Plan. There is a potential for 60.2 man-rem during RFC3 without the proposed change. This potential is due to the reject region of the 37 Plan. This proposed change will eliminate the probability of excessive tests (i.e., 100%) of a good snubber population and thus reduce man-rem exposure.
- 5. Selection of any of the three sample plans provided in Technical Specification 4.7.4.e is optional. In addition, Technical Specification 4.7.4.e sample plan 3 (i.e., the "55 Plan") has been deleted from the draft OM-4 document. As such, this is an administrative change.
- 6. The bases are being changed consistent with the proposed changes to the technical specification. A reference to the ANSI/ASME OM-4 Revision 2 draft (9/86) is added to complete the bases of Figure 4.7.4-1. Additionally, references to the 55 Plan are deleted.

## D. NO SIGNIFICANT HAZARDS CONSIDERATION

As discussed in 10CFR50.92 the following discussions are provided to the NRC Staff in support of the no significant hazards considerations.

- No significant increase in the probability or consequences of an accident previously evaluated results from this change.
  - a. Operable snubbers ensure that the structural integrity of the reactor coolant system and all other safety related systems is maintained during and following a seismic or other event initiating dynamic loads. Testing verifies the snubbers are capable of performing this function. The proposed change does not change the acceptance criteria for snubber testing. Snubber functional testing requires an initial sample of 37 snubbers be tested, with additional testing to be conducted as necessary until the plot of C vs. N of Figure 4.7.4-1 falls into the accept region or until all snubbers in a population are tested.

- The limiting condition of operation for snubbers, as defined by b. Technical Specification 3.7.4, is not altered by the proposed changes. An evaluation of the Wald's sequential sampling plan formulas for acceptance and rejection numbers shows that reducing the probability of rejecting a good population to zero while holding constant the probability of accepting a bad population has the effect of eliminating the reject line without significantly changing the accept line. As such, acceptance is independent of rejection, and the current acceptance criteria can be maintained with the reject line and reject region deleted without increasing the probability of acceptance of a bad snubber population more than 0.003. Therefore, the proposed changes do not significantly reduce the previous confidence level and have no effect on the structural integrity of safety related systems under dynamic loading.
- c. Selection of a specific sample plan is optional and is selected prior to the test period. As such, deleting the 55 plan of Technical Specification 4.7.4.e.3 is an administrative change. Additionally the 55 plan has been deleted from the draft OM-4 document.
- d. Therefore, the probability or consequences of previously evaluated accidents are not significantly increased.
- 2. The proposed changes do not involve any hardware changes, system function changes or changes to any system's design bases. The proposed changes do not introduce any variables beyond those previously evaluated. The acceptance criteria for surveillance testing remains unchanged. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.
- 3. The proposed changes do not involve changes to surveillance frequency, surveillance methods, limiting conditions for operation or acceptance criteria. The proposed changes do not reduce the previous confidence level of snubber population acceptance. Thus the proposed changes do not represent a significant reduction in the margin of safety.