Entergy Operations

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April 21, 1993

U.S. Nuclear Regulatory Commission
Mail Station P1-37
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-29
Deletion of License Condition (c)(4) of
Attachment 1, Regarding Acceptance of BWROG
Appeal on Flux Monitoring Requirements per
Regulatory Guide 1.97
Proposed Amendment to the Operating License
(PCOL-93/03)

GNRO-93/00043

Gentlemen:

By this letter, Entergy Operations, Inc. is requesting a change to the Grand Gulf Nuclear Station (GGNS) Operating License. The change would delete the existing License Condition (c)(4) of Attachment 1.

The SER evaluated the alternate criteria for neutron monitoring instrumentation as set forth in NEDO-31558, and determined that these criteria are acceptable in lieu of Regulatory Guide (R.G.) 1.97 criteria. GGNS provided the staff evaluation results of the GGNS neutron monitoring system (NMS) design as it relates to the topical report, by letter dated March 15, 1993. In addition, GGNS provided a schedule for implementation of a design change to provide redundant non-class 1E Uninterruptible Power Supply (UPS) power for the Average Power Range Monitor (APRM) recorders.

The March 15, 1993 submittal met the License Condition requirement for "... action and schedules for implementing these requirements...", as well as confirmed GGNS compliance with the alternate criteria.

A003

In accordance with the provisions of 10CFR50.4, the signed original of the requested amendment is enclosed. Attachment 2 provides the discussion and technical justification to support the requested amendment. Attachment 3 is a copy of the affected TS License Condition page, marked up to show the requested change. This proposed amendment has been reviewed and accepted by the Plant Safety Review Committee and the Safety Review Committee.

Based on the guidelines presented in 10CFR50.92, Entergy Operations has concluded that this proposed amendment involves no significant hazards considerations.

Yours truly,

C. R. Hutchinson
Vice President, Operations GGNS

RLP/ams
attachments: 1. Affirmation per 10CFR50.30
2. GGNS PCOL-93/03
3. Mark-up of Affected Operating License Pages
cc: (See Next Page)

cc: Mr. R. H. Bernhard (w/a)
Mr. D. C. Hintz (w/a)
Mr. H. W. Keiser (w/a)
Mr. R. B. McGehee (w/a)
Mr. N. S. Reynolds (w/a)
Mr. H. L. Thomas (w/o)

Mr. Stewart D. Ebneter (w/a)
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Mr. P. W. O'Connor, Project Manager (w/2)
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Mail Stop 13H3
Washington, D.C. 20555

Dr. Alton B. Cobb (w/a)
State Health Officer
State Board of Health
P.O. Box 1700
Jackson, Mississippi 39205

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
and
ENTERGY OPERATIONS, INC.

AFFIRMATION

I, C. R. Hutchinson, being duly sworn, state that I am Vice President, Operations GGNS of Entergy Operations, Inc.; that on behalf of Entergy Operations, Inc., System Energy Resources, Inc., and South Mississippi Electric Power Association I am authorized by Entergy Operations, 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, Operations GGNS of Entergy Operations, Inc.; and that the statements made and the matters set forth therein are true and correct to the best of my knowledge, information and belief.

C. R. Hutchinson

STATE OF MISSISSIPPI
COUNTY OF CLAIBORNE

SUBSCRIBED AND SWORN TO before me, a Notary Public, in and for the County and State above named, this 21st day of April, 1993.

(SEAL)

Elizabeth R. Long
Notary Public

My commission expires:

December 28, 1995

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A. **Subject:** PCOL-93/03, Deletion of License Condition (c)(4) of Attachment 1, Regarding Acceptance of BWROG Appeal on Flux Monitoring Requirements per R.G. 1.97

Affected License Condition:

License Condition (c)(4) of Attachment 1 to the Grand Gulf Nuclear Station Operating License

Affected Page: 18

B. **DISCUSSION AND JUSTIFICATION:**

The GGNS Operating License, section (c)(4) of Appendix 1 states "Implement the requirements of Regulatory Guide (R.G.) 1.97 for flux monitoring consistent with the resolution of the BWR Owners' Group (BWROG) appeal of the NRC Staff's January 29, 1990, Safety Evaluation Report on BWROG Licensing Topical Report NEDO-31558. The Entergy Operations, Inc. actions and schedules for implementing these requirements shall be submitted to the NRC Staff for approval within 60 days of the resolution of the BWROG appeal by the Director of NRR."

On January 13, 1993, the NRC issued a Safety Evaluation Report (SER) on NEDO-31558, which found the alternate criteria for neutron flux monitoring requirements in NEDO-31558 acceptable in lieu of the R.G. 1.97 Category 1 criteria. The conclusion of the SER stated that "Licensees should provide a commitment to these criteria and perform a plant specific power distribution review of neutron flux monitoring instrumentation."

By letter dated March 15, 1993, Entergy Operations, Inc. submitted to the NRC Staff an evaluation which compared the Grand Gulf Neutron Monitoring System (NMS) to the alternate requirements of NEDO-31558. This letter concluded that "the Average Power Range Monitors (APRM) subsystem of the NMS meets or exceeds the alternate requirements established by NEDO-31558..". In addition, this letter provided an action plan and schedule to provide redundant non-class 1E Uninterruptible Power Supply (UPS) for the APRM operator console recorders, as required by the SER and in compliance with the Operating License.

Having provided an evaluation confirming the GGNS NMS design meets or exceeds alternate criteria and having committed to an action plan and schedule for providing redundant power to the recorders, Entergy Operations, Inc. has met the requirements of the License Condition (c)(4) of Attachment 1 to the GGNS Operating License. Therefore, GGNS is proposing the deletion of this License Condition.

C. NO SIGNIFICANT HAZARDS CONSIDERATIONS

1. Entergy Operations, Inc. is proposing the revision of the Operating License to delete item (c)(4) of Attachment 1, Page 18, "Implement the requirements of Regulatory Guide 1.97 for flux monitoring consistent with the resolution of the BWR Owners' Group (BWROG) appeal of the NRC Staff's January 29, 1990, Safety Evaluation Report on BWROG Licensing Topical Report NEDO-31558. The Entergy Operations, Inc. actions and schedules for implementing these requirements shall be submitted to the NRC Staff for approval within 60 days of the resolution of the BWROG appeal by the Director of NRR."

2. The Commission has provided standards for determining whether a no significant hazards consideration exists as stated in 10CFR50.92(c). A proposed amendment to an operating license involves no significant hazards consideration if operation of the facility 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.

3. Entergy Operations has evaluated the no significant hazards considerations in its request for a license amendment. In accordance with 10CFR50.91(a), Entergy Operations is providing the analysis of the proposed amendment against the three standards in 10CFR50.92:

   a. No significant increase in the probability or consequences of an accident previously evaluated results from this change.

      Removal of this License Condition does not affect the physical configuration or operation of the plant, so the probability of an accident previously evaluated is not increased.

      The NEDO-31558 report analyzed event scenarios to determine the consequences of neutron flux monitoring unavailability and concludes that the failure of this instrumentation will not prevent the operator from determining reactor power levels. Alternate parameter status will be available from which reactor power may be inferred. Sufficient information will be available upon which to base operational decisions and to conclude that reactivity control has been

accomplished, thereby not increasing the consequences of an accident. Additionally, criteria contained in NEDO-31558 regarding the neutron flux monitoring instrumentation provide sufficient confidence that the instrumentation will be available to confirm reactor shutdown for a wide range of events, including Anticipated Transients Without Scram. Based upon the BWR Owners' Group submittals, the NRC has determined that Category 1 neutron flux monitoring instrumentation is not needed for existing BWRs to cope with Loss of Coolant Accidents, Anticipated Transients Without Scram, or other accidents that do not result in severe core damage conditions.

Based on the above, the removal of License Condition (c)(4) of Attachment 1 to the GGNS Operating License will not significantly increase the probability or consequences of a previously analyzed accident.

b. The change would not create the possibility of a new or different kind of accident from any previously analyzed.

This change proposes removal of License Condition (c)(4) of Attachment 1 to the GGNS Operating License. No physical changes to the plant would result if this particular License Condition is removed, nor would any changes in plant operation occur.

The conclusion of the NEDO-31558 report was that the failure of the neutron flux monitoring instrumentation will not prevent the operator from determining reactor power levels. Sufficient information is available upon which to base operational decisions and to conclude that reactivity control has been accomplished. The NEDO-31558 also provided an alternate criteria for neutron flux instrumentation to meet, which is acceptable in lieu of the Category 1 criteria of Regulatory Guide 1.97. Based upon the BWR Owners' Group submittals, the NRC has determined that Category 1 neutron flux monitoring instrumentation is not needed for existing BWRs to cope with Loss of Coolant Accidents, Anticipated Transients Without Scram, or other accidents that do not result in severe core damage conditions.

Based upon the information provided above, the removal of License Condition (c)(4) of Attachment 1 to the GGNS Operating License will not create the possibility of a new or different kind of accident from any previously analyzed.

c. This change would not involve a significant reduction in the margin of safety.

No changes to plant operation, testing, or physical configuration of the plant will be necessary with the removal of this License Condition.

As stated in the NEDO-31558, failure of the existing neutron flux monitoring instrumentation will not prevent the operator from determining reactor power levels. Sufficient information will be available upon which to base operational decisions and to conclude that reactivity control has been accomplished.

Thus, the margin of safety will not be reduced by deleting License Condition (c)(4) of Attachment 1 to the GGNS Operating License.

Mark-up of Affected Operating License Pages

PCOL-93/03

EOI shall complete the following requirements on the schedule noted below:

Emergency Response Facilities (Generic Letter 82-33, NUREG-0737 Supplement 1, SSER #5

EOI shall implement the specific items below, in the manner described in MP&L letter (AECM-83/0232) dated April 15, 1983, as modified in MP&L letter (AECM-83/0486) dated August 22, 1983, no later than the following specified dates:

(a) Safety Parameter Display System (SPDS)

(1) Submit a safety analysis and implementation plan to the NRC — July 1985

(2) SPDS fully operational and operator trained — Prior to startup following first refueling outage.

(b) Detailed Control Room Design Review (DCRDR)

(1) Submit a program plan to the NRC — December 1984

(2) Submit a summary report to the NRC including a proposed schedule for implementation — July 1986

(c) Regulatory Guide 1.97 - Application to Emergency Response Facilities

(1) Submit a report to the NRC describing how the requirements of Supplement 1 to NUREG-0737 have been or will be met. — February 1985

(2) Implement (installation or upgrade) requirements of R.G. 1.97 with exception of flux monitoring and coolant level monitoring. — Prior to startup following first refueling outage.

(3) Implement (installation or upgrade) requirements of R.G. 1.97 for coolant level monitoring. — Prior to startup following second refueling outage.

(4) (Deleted) ~~Implement the requirements of R.G. 1.97 for flux monitoring consistent with the resolution of the BWR Owners' Group (BWROG) appeal of the NRC Staff's January 29, 1990, Safety Evaluation Report on BWROG Licensing Topical Report NEDO-31558. The Entergy Operations, Inc. actions and schedules for implementing these requirements shall be submitted to the NRC Staff for approval within 60 days of the resolution of the BWROG appeal by the Director of NRR.~~ --

(d) Upgrade Emergency Operating Procedures (EOP's)

(1) Submit a Procedures Generation Package to the NRC. April 1985