



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

April 25, 1983

JAMES P. McGAUGHY, JR.
VICE PRESIDENT

U. S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Washington, D.C. 20555

Attention: Mr. Harold R. Denton, Director

Dear Mr. Denton:

SUBJECT: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-13
File 0260/0840/L-860.0
Proposed Amendment to the
Operating License
(PCOL-83/06)
AECM-83/0254

In accordance with the provisions of 10 CFR 50.59 and 10 CFR 50.90, Mississippi Power & Light (MP&L) requests an amendment to License NPF-13, for Grand Gulf Nuclear Station (GGNS) Unit 1.

In accordance with provisions of 10 CFR 50.30, three (3) signed originals and forty (40) copies of the requested amendment are enclosed. The attachment provides the complete technical justification and discussion to support the requested amendment. This amendment has been reviewed and accepted by the Plant Safety Review Committee (PSRC) and the Safety Review Committee (SRC).

In accordance with the requirements of 10 CFR 170.22, we have determined that the proposed amendment includes three safety issues, Items 4, 5, and 8. The remaining portion is considered to be administrative in nature. Based on the guidance provided by the Project Manager (NRC), we have determined that the total fee is \$5,200. A remittance of \$5,200 is attached to this letter.

Yours truly,

JPM:sap
Attachments: GGNS PCOL-83/06

cc: (See Next Page)

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MISSISSIPPI POWER & LIGHT COMPANY

cc: Mr. J. B. Richard (w/o)
Mr. G. B. Taylor (w/o)
Mr. R. B. McGehee (w/o)
Mr. T. B. Conner (w/o)

Mr. J. P. O'Reilly (w/a)
Regional Administrator
Office of Inspection & Enforcement, Region II
101 Marietta Street, N.W., Suite 3100
Atlanta, Georgia 30303

Mr. R. C. DeYoung, Director (w/a)
Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

BEFORE THE
UNITED STATES NUCLEAR REGULATORY COMMISSION

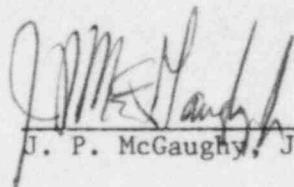
LICENSE NO. NPF-13

DOCKET NO. 50-416

IN THE MATTER OF
MISSISSIPPI POWER & LIGHT COMPANY
and
MIDDLE SOUTH ENERGY, INC.
and
SOUTH MISSISSIPPI ELECTRIC POWER ASSOCIATION

AFFIRMATION

I, J. P. McGaughy, Jr., being duly sworn, stated that I am Vice President - Nuclear of Mississippi Power & Light Company; that on behalf of Mississippi Power & Light Company, Middle South Energy, Inc., and South Mississippi Electric Power Association I am authorized by Mississippi Power & Light Company 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 of Mississippi Power & Light Company; and that the statements made and the matters set forth therein are true and correct to the best of my knowledge, information and belief.

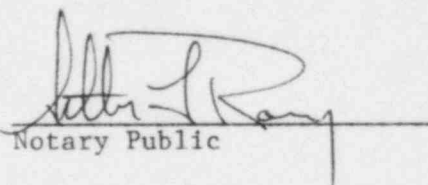


J. P. McGaughy, Jr.

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 APRIL, 1983.

(SEAL)



Notary Public

My commission expires:

13 FEBRUARY 1985

PROPOSED CHANGE TO THE OPERATING LICENSE NPF-13
PCOL-83/06

Mississippi Power & Light (MP&L) requests that the operating license for Grand Gulf Nuclear Station (GGNS) (NPF-13) be amended as detailed below. These proposed changes, as discussed below, are provided for Nuclear Regulatory Commission (NRC) review and approval per 10 CFR 50.90.

1. SUBJECT: Technical Specification 3.7.5, Sealed Source Contamination, page 3/4 7-26.

DISCUSSION: Technical Specification 3.7.5 states: "Each sealed source containing radioactive material either in excess of 100 microcuries of beta and/or gamma emitting material or 5 microcuries of alpha emitting material shall be free of greater than or equal to 0.005 microcuries of removable contamination."

10CFR31.5(c) (2) (ii) states: "Devices containing only tritium or not more than 100 microcuries of other beta and/or gamma emitting material or 10 microcuries of alpha emitting materialneed not be tested for any purpose."

Technical Specification 3.7.5 should be revised to read "... 10 microcuries of alpha emitting material..."

JUSTIFICATION: Technical Specification 3.7.5 should be revised to conform to the Code of Federal Regulations, 10 CFR 31.5 (c)(2)(ii).

2. SUBJECT: Technical Specification 4.7.5.3, Reports, page 3/4 7-27.

DISCUSSION: Technical Specification 4.7.5.3 states: "A report shall be prepared and submitted to the Commission on an annual basis if sealed source or fission detector leakage test reveal the presence of greater than or equal to 0.005 microcuries of removable contamination."

10CFR31.5(c) (5) states: "... upon the detection of 0.005 microcuries or more of removable radioactive contamination shall, within 30 days, furnish to the Commission....., a report....."

Technical Specification 4.7.5.3 should be revised to read "... submitted to the Commission within 30..."

JUSTIFICATION: Technical Specification 4.7.5.3 should be revised to conform to the Code of Federal Regulations, 10CFR31.5(c).

3. (GGNS - 682)

SUBJECT: Technical Specification 4.7.6.1.1.e.1, page 3/4 7-29.

DISCUSSION: Surveillance Requirement 4.7.6.1.1.e.1 requires verification at least once per 18 months that each automatic valve in the flow path of the fire suppression water system actuates to its correct position. This item should be deleted.

JUSTIFICATION: FSAR Section 9.5 and Appendix 9A present the layout of the fire suppression water system. The only automatic valves within the fire suppression water system are containment isolation valves which are normally open. The position of these isolation valves is verified at least once per thirty-one (31) days in accordance with Surveillance Requirement 4.7.6.1.1.c. Upon actuation of the fire suppression water system, the isolation valves are not actuated and remain in their normal open positions. Since this requirement is not applicable to the GGNS design, Surveillance Requirement 4.7.6.1.1.e.1 should be deleted.

4. (GGNS - 209)

SUBJECT: Technical Specification 4.7.6.1.3.a, page 3/4 7-30.

DISCUSSION: Technical Specification Surveillance Requirement 4.7.6.1.3.a should be revised such that electrolyte level and specific gravity should be verified for only the pilot cells of the diesel driven fire pump starting batteries.

JUSTIFICATION: The proposed change provides greater consistency between the Grand Gulf Nuclear Station Technical Specifications and the Standard Technical Specifications for General Electric Boiling Water Reactors NUREG-0123. The Standard Technical Specifications require only verification of the electrolyte level and the specific gravity of the pilot cells for the diesel driven fire pump starting batteries. Verification of the specific gravity for each cell is accomplished each 92 days per Surveillance Requirement 4.7.6.1.3.b.

5. (GGNS - 152, 211, 211a, 223, 241)

SUBJECT: Technical Specification 4.7.6.3.1, 4.7.6.3.2.b.1, 3.7.6.4, and 4.7.6.4; pages 3/4 7-33 and 3/4 7-34.

DISCUSSION: Technical Specification 4.7.6.3.1 requires position verification of valves in the flow path of each CO₂ system. The design of the differential pressure valves in these systems precludes position verification.

Technical Specifications 4.7.6.3.2.b.1 and 4.7.6.4.c.1 (new 4.7.6.4.b.1) require destructive testing of the electro-thermal links and should be revised to allow verification that an actuation signal is received by the electro-thermal links rather than requiring actual operation.

Technical Specifications 3.7.6.4.b and 3.7.6.4.c should be revised to specify the actual area protected by the halon systems is the under floor area.

Technical Specification 4.7.6.4.a is not applicable to the Grand Gulf design and should be deleted.

JUSTIFICATION: All of the CO₂ systems are supplied from a centralized CO₂ storage facility. System actuation causes repositioning of differential pressure valves at the storage tank and the affected area. These valves operate on differential pressure across a piston and are not designed for direct manual control. Since the valves are not designed for direct manual control, they are not provided with position indicators. Furthermore, re-positioning of these valves would result in system alarms to alert operating personnel of a problem in the system. Since these valves are not subject to direct manual manipulation, position indicators are not provided, and repositioning would produce system alarms, position verification of these valves is unwarranted.

The electro-thermal links utilized for ventilation damper control are single operation devices. Once operated, they must be replaced. All of the electro-thermal links utilized in CO₂ and halon system areas have been approved by Underwriters Laboratory. This approval is obtained through extensive testing to assure reliability of operation; therefore, verifying that an actuation signal is received when a detector trip occurs is sufficient to verify operability of the electro-thermal links. In addition, a test of the damper associated with the electro-thermal link would require operation, hence destruction, of the electro-thermal links. Since damper failures result from mechanical degradation such as corrosion, obstruction, or deformation of moving parts, periodic visual inspection of dampers as required by Surveillance Requirement 4.7.7.1 is sufficient to ascertain if any mechanical degradation has occurred. If mechanical degradation has not occurred, then the damper should be operable.

The halon systems specified in specifications 3.7.6.4.b and 3.7.6.4.c protect the under floor area of the PGCC. These areas are described in the FSAR, Appendix 9A, Table 9A-2, area designations OC502, OC503, and OC703. The proposed change does not affect the technical requirements.

Technical Specification 4.7.6.4 is not applicable since the Grand Gulf halon systems do not contain verifiable valves in the flow path. All valves are totally enclosed, nitrogen pressure or explosive pin actuated, and can not be manually manipulated or externally verified.

6. (GGNS - 681)

SUBJECT: Technical Specification Table 3.7.6.5-1, page 3/4 7-36 and 3/4 7-37.

DISCUSSION: The locations for fire hose stations listed in Technical Specification Table 3.7.6.5-1 should be revised to reflect the as-built location of the fire hose stations.

JUSTIFICATION: Plant as-built drawings and inspection of hose station locations confirm that the proposed changes to Technical Specification Table 3.7.6.5-1 will correctly reflect the location of these hose stations. The arrangement drawings in Appendix 9A of the Grand Gulf Nuclear Station Final Safety Analysis Report will be revised to agree with the as-built drawings and the locations shown in revised Technical Specification Table 3.7.6.5-1.

7. (GGNS - 153, 232, 239)

SUBJECT: Technical Specification Table 3.7.6.6-1, page 3/4 7-39.

DISCUSSION: Technical Specification Table 3.7.6.6-1 lists the yard fire hydrants and associated hydrant hose houses which are required to be operable by Technical Specification 3.7.6.6. The only yard fire hydrants which should be required to be operable are the yard hydrants which are capable of supplying hose streams to the diesel generator building. Therefore, the other yard fire hydrants and associated hydrants hose houses should be deleted from Table 3.7.6.6-1. In addition, the elevation for these fire hydrants should be revised to the correct value. The heading title "Hydrant Number/Fire Water Loop Schedule Number" should be changed to "Hydrant Number/ Hydrant Hose House Number". The hydrant hose house numbers should be added to the column beside the hydrant numbers.

JUSTIFICATION: Technical Specification Bases Section 3/4 7.6 states that fire protection systems must be operable to ensure that adequate fire suppression capability exists to confine and extinguish fires which occur in any portion of the facility where safety related equipment is located. The only areas of the plant containing essential equipment which refer to the yard fire hydrants and associated hydrant hose houses as an alternative

source of fire suppression agents are the areas in the diesel generator building which are discussed in Subsection 7.2.4 of Appendix 9A of the GGNS FSAR. The only yard hydrants and associated hydrant hose houses which should be required to be operable in Technical Specification Table 3.7.6.6-1 are the hydrants and hydrant hose houses which might supply hose streams to the diesel generator building.

The numbering system used in the GGNS fire protection system provides a "Hydrant Hose House Number" as a more useful identifier than a "Fire Water Loop Schedule Number"; therefore, the heading should be changed from "Hydrant Number/Fire Water Loop Schedule Number" to "Hydrant Number/Hydrant Hose House Number". The numbers in this column should also be revised accordingly. Finally, the elevation for the fire hydrants corresponds to the grade elevation of 133'0". The elevation of 126'0" presently contained in Table 3.7.6.6-1 refers to the elevation of the water supply piping which is below grade elevation.

8. SUBJECT: Technical Specification Table 3.3.7.9-1, pages 3/4 3-77 and 3/4 3-79.

DISCUSSION: Technical Specification 3.3.7.9 requires that fire detection instrumentation for each fire detection zone listed in Table 3.3.7.9-1 be operable. Table 3.3.7.9-1 includes ionization smoke detectors in the auxiliary building main steam tunnel. The smoke detectors should be removed from service and deleted from the table.

JUSTIFICATION: Fire detection in the main steam tunnel (Area 1A305) is provided by two ionization smoke detectors, per Technical Specification 3.3.7.9. The maximum ambient temperature in this area is 125°F; however, the maximum operating temperature of the installed smoke detectors is approximately 122°F. Since the maximum operating temperature of the smoke detectors may be exceeded, spurious alarms may occur; these detectors may have to be routinely declared inoperable during normal plant operation. Establishment of the hourly fire watch required by Technical Specification 3.3.7.9.a would not be consistent with the intent of ALARA guidance since the dose rate in this area during normal operation will be approximately 5 rem/hr.

Removal of these smoke detectors is justifiable based on the insignificant fire heat load in this area (reference FSAR Table 9A-2) and the low probability of transient combustibles in this area since access is under strict administrative control.

If a fire does occur in this area, it will be sensed by four dual-element thermocouples which monitor ambient air temperature and initiate alarms in the control room on high

temperature. These thermocouples are part of the leak detection system. For these reasons, the smoke detectors in the main steam tunnel should be removed from service and, therefore, the Technical Specifications should be revised to reflect this.

9. (GGNS - 450)

SUBJECT: Bases Section 2.2.1, page B 2-6; Bases Sections 3/4.3.2 and 3/4.3.3, page B 3/4 3-2; Bases Sections 3/4.3.4, 3/4.3.5, and 3/4.3.6, page B 3/4 3-3.

DISCUSSION: Bases Sections 2.2.1, 3/4.3.2, 3/4.3.3, 3/4.3.4, 3/4.3.5, 3/4.3.6 states that "operation with a trip setpoint less conservative than its Trip Setpoint but within its specified Allowable Value is acceptable on the basis that the difference between each Trip Setpoint and the Allowable Value is equal or less than the drift allowance assumed for each trip in the safety analysis." The difference between the Trip Setpoint and Allowable Value, however, should be greater than the instrument drift. The affected Bases Sections should be changed to reflect this position.

JUSTIFICATION: The Allowable Value is a quantity bounded by the Safety Analysis. It is a limitation which should not be exceeded by instrument drift. Therefore, the Trip Setpoint is determined such that normal instrument drift will not allow the trip set to exceed the Allowable Value. Hence, the maximum drift allowance should be less than the difference between Trip Setpoint and Allowable Value. This will assure that instrument drift will not exceed the Allowable Value thereby preventing a trip at a less conservative value than assumed in the Safety Analysis.

Changing the wording as indicated on the marked-up pages will more accurately describe the bases for the referenced system instrumentation Allowable Values.