



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

JAMES P. McGAUGHY, JR.
ASSISTANT VICE PRESIDENT

June 23, 1981

Office of Inspection & Enforcement
U.S. Nuclear Regulatory Commission
Region II
101 Marietta St., N.W., Suite 3100
Atlanta, Georgia 30303

Attention: Mr. J. P. O'Reilly, Director

Dear Mr. O'Reilly:



SUBJECT: Grand Gulf Nuclear Station
Units 1 and 2
Docket Nos. 50-416 and 50-417
File 0262/0472/L-860.0/L-401.0
Complete Response Concerning
IE Bulletin 80-25
Reference: AECM-81/114
AECM-81/182

Mississippi Power & Light Company has completed their review for Grand Gulf Nuclear Station required by IE Bulletin 80-25 and has the following complete response to the action items as stated below:

1. If your facility has not yet installed or changed or is presently in the process of changing to the two-stage S/R valves, initiate appropriate quality control procedures to assure inspection of the solenoid actuators for excess Loc-tite prior to operation. If the solenoid actuator manufactured by Target Rock Corporation is already installed in your facility, confirm its operability either by its operational performance (i.e., it has functioned as designed following an aging period of about 3 months in the higher temperature environment of power operation conditions) or by functional testing at full pressure during the next refueling shutdown of the facility. Include in your report the results of all attempts to operate the two-stage S/R valve(s).

Response: Mississippi Power & Light Company is in the process of installing the S/R valve assemblies into GCNS with appropriate quality control procedures to assure inspection of the solenoid actuators for excess Loc-tite prior to operation. S/R valves and solenoid actuators manufactured by Target Rock Corporation are not being used at GCNS. Safety relief valve assemblies for Grand Gulf Nuclear Station include Dikkers G471-8X10 single-stage direct acting, spring loaded safety valves with viton seals, Seitz double solenoid valve actuators and pneumatic cylinder operators.

8107240421 810623
PDR ADOCK 05000416
Q PDR

MISSISSIPPI POWER & LIGHT COMPANY

U.S. Nuclear Regulatory Commission
Office of Inspection & Enforcement

AECM-81/182
Page 2

Dickers Instruction Manual G-471-6/125.04:10, Section II, Revision 3, dated September 17, 1979, recommends the use of Loc-tite 640 in conjunction with locking wires to secure bolting on the exterior of the valve assembly only. Bolting in the internal portions of the valve assembly and the solenoid valve actuators are secured by lock tabs. MP&L does not use Loc-tite in the internal assembly of the solenoid actuators. The confirmation of operability specified in the Bulletin is not applicable since the Target Rock SRV's are not utilized at GGNS.

2. In the event that a S/R valve, regardless of make or model (e.g., both two or three stage), fails to function as designed, excepting for pressure setpoint requirements, and the cause of the malfunction is not clearly determined, understood, and therefore corrected, standard operating procedures shall require that the entire valve be removed from service, disassembled, inspected, adjusted, and pressure setpoint tested with steam for proper operation prior to returning the valve to service. These overhaul requirements shall be at least equivalent to those applicable to periodic surveillance rehabilitation requirements. Appropriate revisions of your operating procedures shall be made to include these requirements.

Response: This item is not applicable since single-stage safety relief valves are used at GGNS.

3. A review of your S/R valve pneumatic supply systems shall be performed to determine the potential for and magnitude of an overpressure condition. The determined overpressure potential of the pneumatic supply shall be compared with the maximum operating pressure capabilities of the solenoid actuator valves serving the S/R valves, so as to determine whether supply pressure could result in valve malfunction. Protective devices (such as relief valves) shall be installed in the proximity of the S/R valves and set to protect against supply pressure in excess of the operating pressure capabilities of the solenoid actuator device. In addition, consideration should be given to modification or replacement to reduce the sensitivity of the solenoid actuator to pneumatic supply overpressure. Further, the failure, either high or low, of the pneumatic supply system shall be annunciated to the control room operator. The annunciated supply pressure should be measured at a location as close as practical to the S/R valves and downstream of any check valve connecting two or more pneumatic sources. Appropriate operating procedures shall be provided to guide operator response to such an occurrence of high or low supply pressure.

Response: Our review of the S/R valve pneumatic supply system for GGNS has determined that the potential for an overpressure condition is minimal based on the

MISSISSIPPI POWER & LIGHT COMPANY

U.S. Nuclear Regulatory Commission
Office of Inspection & Enforcement

AECM-81/182
Page 3

configuration of the instrument air system which supplies air pressure to operate the Seitz double solenoid valve actuators. The air pressure of the instrument air system is raised to the normal operating pressure of the S/R valve pneumatic supply system by the booster compressor for the SRV receivers. The safety valve on the discharge line of the booster pump has a maximum set pressure of 240 psig. From the SRV receivers, instrument air is distributed to the SRV accumulators which have a safety valve with a maximum set pressure of 190 psig on each accumulator and then on to the Seitz double solenoid valve actuators which have been tested and qualified by GE for a maximum air supply pressure of 250 psig. The existence of these multiple protective devices (relief valves) recommended by GE for high pressure relief to limit the pneumatic supply pressure for the S/R valves should adequately protect the SRV's against supply pressures in excess of the maximum operating pressure of the Seitz double solenoid valve actuators thus minimizing the potential and magnitude for the occurrence of an overpressure condition.

MP&L and GE have considered modification or replacement to reduce the sensitivity of the solenoid actuator to pneumatic supply overpressure. GE's analysis revealed that the Seitz double solenoid valve actuators used in the SRV's for Grand Gulf are less sensitive to the pneumatic pressure than the solenoid valves used in the Target Rock SRV's. GE has conducted a test and verified valve operability at a pressure of 250 psig. Based on the results of GE's test, MP&L is not currently planning any modifications or replacements of the Seitz double solenoid valve actuators used in the SRV's for GGNS.

Handling of low pneumatic supply pressure is covered under operations procedure 04-1-02-1HB-870-7A-G3, "Instrument Air Booster Compressor Discharge Pressure Low." High supply pressure is not addressed since multiple protective devices (relief valves) are present on the pneumatic supply system. Additionally, spurious operation of the SRV in which the valve remains open is covered by ONEP-05-1-02-III-1, "Safety Relief Valve Fails Open."

4. The results of your review in response to each of the three items above shall be provided within 90 days of the date of this bulletin. The system upgrading identified in item 3 shall be completed within 6 months of the time that you

MISSISSIPPI POWER & LIGHT COMPANY

U.S. Nuclear Regulatory Commission
Office of Inspection & Enforcement

AECM-81/182
Page 4

conclude a replacement or modification should be made and the necessary parts are available. This upgrading shall be reported when completed.

Response: The results of MP&L's review are contained in the responses to items 1, 2 and 3 above. No system upgrading has been identified as necessary in item 3.

MP&L is planning no additional response on IE Bulletin 80-25. Approximately 80 man-hours were expended to date in the review, evaluation, and preparation of the reports required to respond to this Bulletin. No man-hours have been expended to date for corrective actions related to this Bulletin.

Should you have any further questions regarding this matter, please advise.

Yours truly,

JPM:lm

cc: Mr. N. L. Stampley
Mr. G. B. Taylor
Mr. R. B. McGehee
Mr. T. B. Conner

Mr. Victor Stello, Jr., Director
Office of Inspection & Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

BEFORE THE
UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NOS. 50-416 AND 50-417

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

IE BULLETIN 80-25 RESPONSE
FOR ACTIONS TO BE TAKEN BY LICENSEES

Mississippi Power & Light Company for itself on behalf of Middle South Energy, Inc. and South Mississippi Electric Power Association herewith files this response to IE Bulletin 80-25 in connection with the Construction Permits for the Grand Gulf Nuclear Station, as requested by the United States Nuclear Regulatory Commission, Region II Office of Inspection and Enforcement, in a letter to Mississippi Power & Light Company, dated December 19, 1980.

Respectfully submitted,
Mississippi Power & Light

Company

BY _____
J. P. McGaughy, Jr.
Assistant Vice President
Nuclear Production

STATE OF MISSISSIPPI
COUNTY OF HINDS

I, J. P. McGaughy, Jr., being duly sworn, states that I am Assistant Vice President-Nuclear Production 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 response to IE Bulletin 80-25 in connection with the Construction Permits of the Grand Gulf Nuclear Station; that I signed the foregoing letter containing said response as Assistant Vice President-Nuclear Production 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.

SUBSCRIBED AND SWORN TO before me, a Notary Public, in and for the County and State above named, this 23 day of June, 1981.

(SEAL)

Edw. E. Shup
Notary Public

My commission expires:

My Commission Expires Jan. 31, 1983