



# MISSISSIPPI POWER & LIGHT COMPANY

*Helping Build Mississippi*

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

NUCLEAR PRODUCTION DEPARTMENT

October 18, 1982

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  
Units 1 and 2  
Docket Nos. 50-416 and 50-417  
License No. NPF-13  
File 0260/M-001.0  
ADS Air System  
AECM-82/490

In accordance with requests by the Equipment Qualification Branch, Mississippi Power & Light Company (MP&L) is providing additional information relating to the design and testing of the automatic depressurization system (ADS) air system. The three areas of concern are addressed below:

1. Response to TMI-2 Requirement II.K.3.28

FSAR subsection 18.1.30.12 will be revised as shown in Attachment 1 to respond to this requirement. The revised response is consistent with the discussions of ADS air system design currently in FSAR subsections 5.2.2.4.1 and 7.3.1.1.1.4.2.

2. ADS Air System Testing

The ADS air system is tested as part of the nuclear boiler system preoperational test described in FSAR subsection 14.2.12.1.4. The air system test, scheduled for the current plant outage, will verify that the design meets the requirements in FSAR subsection 5.2.2.4.1, page 5.2-9a. Once the plant is operational, the air system will be tested as part of the ADS surveillance requirements in Technical Specification 4.5.1.d. In accordance with the Inservice Inspection Program, ADS accumulator and air receiver check valves (FSAR Figure 5.2-8) and instrument air system valve P53-F006 (FSAR Figure 9.3-1) will be operability tested during cold shutdown and refueling no more often than every 92 days. Additionally, valve P53-F006 will undergo a valve seat leakage test every 18 months.

8210210217 821018  
PDR ADOCK 05000416  
A PDR

AE2CC1

Member Middle South Utilities System

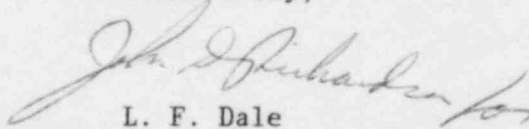
3001

3. ADS Air System Makeup Provisions

A connection is installed outside the containment to provide the capability for ADS air makeup. The makeup line is the test connection shown on FSAR Figure 9.3-1, location A-5.

If you have any further questions, please do not hesitate to contact us.

Yours truly,



L. F. Dale  
Manager of Nuclear Services

MJD/JDR:lm

Attachment: Revision to FSAR Subsection 18.1.30.12

cc: Mr. N. L. Stampley (w/a)  
Mr. R. B. McGehee (w/o)  
Mr. T. B. Conner (w/o)  
Mr. G. B. Taylor (w/o)

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

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

Revision to  
FSAR Subsection 18.1.30.12

RESPONSE

The ADS accumulators are presently specified to provide two ADS safety/relief valve (SRV) actuations at 70% of drywell design pressure. This is equivalent to 4-5 actuations of the ADS SRVs at atmospheric pressure in the drywell. The ADS valves are designed to operate at 70% of drywell design pressure because that is the maximum pressure for which rapid reactor depressurization through the ADS valves is required (greater drywell pressures are associated only with the short duration primary system blowdown in the drywell immediately following a large pipe rupture). For large breaks which result in higher drywell pressure, sufficient reactor depressurization occurs due to the break to preclude the need for ADS. One ADS actuation at 70% of drywell design pressure is sufficient to depressurize the reactor and allow inventory makeup by the low pressure ECCS systems. However, for conservatism, the ADS accumulators are sized to allow 2 ADS actuations at 70% of drywell design pressure.

The duration for which the ADS must be available is dependent on factors such as the power of the reactor at the time of the LOCA, break size and location, available injection systems, and availability of RHR shutdown cooling. On loss of instrument air, the ADS/SRV air system is capable of providing 100 single SRV actuations over a period of 6 hours to permit manual depressurization if desired. Additionally, the ADS/SRV air system is capable of providing 100 days of air supply to make up for leakage from all components and hold the connected ADS SRVs open. To accommodate the 100 day make up capability, operator action is required to provide bottled air to connections outside containment that will pressurize the air receivers.