



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N.W. SUITE 1217
ATLANTA, GEORGIA 30303

Report Nos.: 50-416/78-7 and 50-417/78-7

Docket Nos.: 50-416 and 50-417

License Nos.: CPPR-118 and CPPR-119

Categories: A2 and A2

Licensee: Mississippi Power and Light Company
Post Office box 1640
Jackson, Mississippi 39205

Facility Name: Grand Gulf Nuclear Station, Units 1 and 2

Inspection at: Grand Gulf, Mississippi

Inspection conducted: April 19-20, 1978

Inspector: C. R. McFarland

Accompanying Personnel: Dr. J. F. Costello, SD: Engineering Methodology
Standards Branch
H. M. Fontecilla, NRR: Environmental Evaluation
Branch
Dr. T. Fujita, University of Chicago, Department of
Geosciences, Aerial Observations only
Dr. J. McDonald, Texas Technology College,
Department of Civil Engineering
D. Smith, Texas Technology College, Student

Reviewed by:

John K. Rausch Sr.
A. R. Herdt, Chief
Projects Section

Reactor Construction and Engineering Support Branch

4-27-78
Date

Inspection Summary

Inspection on April 19-20, 1978 (Report Nos. 50-416/78-7 and 50-417/78-7)

Areas Inspected: Announced inspection of wind damage inflicted by April 17, 1978, tornado. Accompanied NRC:NRR and SD and National Disaster Team personnel to site. This inspection involved 10 inspector-hours on site and 5 inspector-hours at other facilities by one NRC inspector.

Results: No items of noncompliance or deviations were identified.

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DETAILS I

Prepared by: C. R. McFarland 4-27-78
C. R. McFarland, Principal Inspector Date
Projects Section
Reactor Construction and Engineering
Support Branch

Dates of Inspection: April 19-20, 1978

Reviewed by: A. R. Herdt 4-27-78
A. R. Herdt, Chief Date
Projects Section
Reactor Construction and Engineering
Support Branch

1. Persons Contacted

a. Mississippi Power and Light Company (MP&L)

C. K. McCoy, Plant Superintendent
T. R. Reaves, Jr., Manager of Quality Assurance (QA)
P. W. Sly, QA Field Supervisor
L. F. Dale, Assistant Project Manager
H. Carver, Manager of Information and Publication

b. Other Organizations

G. Sliter, Project Manager, Electrical Power Research
Institute
T. L. Lee, Lead Superintendent, Night Shift, Bechtel Power
Corporation

2. Licensee Action on Previous Inspection Findings

This item was not within the scope of this inspection.

3. Unresolved Items

No new unresolved items were identified.

4. Unusual Occurrence - Inspector Dispatched to Site

a. High Wind Damage

At about 11:10 p.m. on April 17, 1978, high winds, later
classified as a tornado, caused extensive damage to the Unit 1
facility and to a large portion of the Grand Gulf Nuclear
site. Unit 1 is 50% complete; Unit 2 is 10% complete.

The Unit 1 containment liner was dented severely by a portion of a Manitowoc 4600 crane. The Unit 1 south tower crane fell and bent around the Auxiliary Building and across the containment liner. The Unit 1 north tower crane was damaged by the south tower crane. The tower crane used to erect the Unit 1 cooling tower fell and caused a large hole in the concrete, natural draft, cooling tower. The tornado winds caused extensive damage to administrative and warehouse buildings, and to temporary construction shacks and storage buildings. The concrete batch plant sustained severe damage with the computer trailer, the Pittsburg Testing Laboratory trailer, the chiller trailer, and the maintenance shack being destroyed; moreover, the curing room was severely damaged. The 500 KV switchyard and the upper (east) laydown area were severely damaged. Seven workers were injured, none seriously. No deaths occurred.

b. Field Observations

The inspector met with personnel from the Office of Nuclear Reactor Regulation (NRR), Office of Standards Development (SD), and the National Disaster Team for Severe Weather Phenomenon (NDT/SWP), and discussed the incident with National Weather Service personnel in Jackson, Mississippi on April 18 and 19, 1978. The NRC and the NDT/SWP personnel subsequently participated in field observations at and near the Grand Gulf site on April 19 and 20, 1978, with the cooperation of the MP&L personnel. Dr. T. Fujita of the University of Chicago, Department of Geoscience, a member of the NDT/SWP, made aerial observations of the site, the wind damaged areas near the site, and damage along the tornado path. Dr. J. M. Donald and Mr. D. Smith, members of the NDT/SWP team, observed the wind damage on, and near, the site by touring the site with MP&L personnel and the NRC inspector, and by interviewing site personnel. Dr. Fujita rated the tornado damage to be about two on a scale of zero to five that is used for comparison purposes by the NDT/SWP team. The NDT/SWP team also made observations of other tornadoes in Mississippi during the same week. The primary interest in the NDT/SWP was to observe damage phenomenon in general and as related to the nuclear station as a group of typical modern structures.

5. Management Interview

A management interview was conducted on April 20, 1978, with Mr. T. R. Reaves, Jr., MP&L Manager of Quality Assurance. The scope of the inspection and the field observations were reviewed. No items of noncompliance were identified during this inspection. In subsequent discussions, the licensee agreed to submit a report of the storm damage together with necessary corrective actions. This is identified as Item Nos. 416 and 417/78-07-01; Storm Damage.