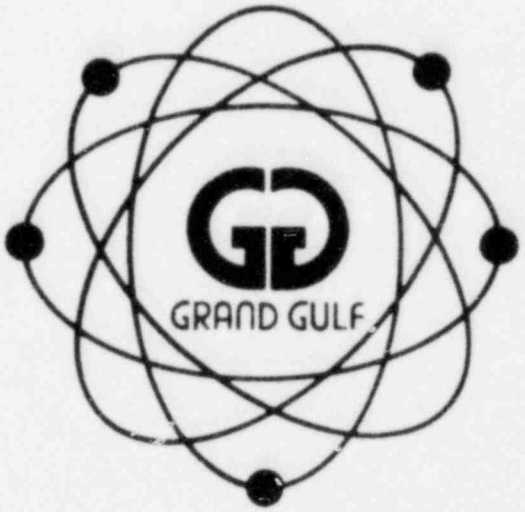
FINAL ENVIRONMENTAL REPORT



GRAND GULF NUCLEAR STATION

UNITS 1 AND 2

MISSISSIPPI POWER & LIGHT COMPANY

MIDDLE SOUTH ENERGY, INC.

MIDDLE SOUTH UTILITIES SYSTEM

AMENDMENT 6

MISSISSIPPI POWER & LIGHT COMPANY
Helping Build Mississippi
P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

February 20, 1981

JAMES P. McGAUGHY, JR.
ASSISTANT VICE PRESIDENT

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

Attention: Mr. Harold R. Denton, Director

Dear Sir:

SUBJECT: Grand Gulf Nuclear Station
Units 1 and 2
Docket Nos. 50-416 and 50-417
File 0260/0277/M-900.0
Amendment 6 to the Final
Environmental Report
AECM-81/64

Attached are forty-one copies and three notorized originals of Amendment 6 to the Application for Licenses for Grand Gulf Nuclear Station, Units 1 and 2, in the matter of the Final Environmental Report (FER). Amendment 6 consists of additional information on the Plant Service Water System (Section 2.4.5.5), a reorganization of section numbers in each volume of the FER, and the addition of Figure 2.4-15.

Yours truly,

JPM:lm
Attachments

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

Mr. Victor Stello, Jr., Director
Division 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

AMENDMENT NO. 6 TO

APPLICATION FOR LICENSES
(FINAL ENVIRONMENTAL REPORT)

Mississippi Power & Light Company for itself and on behalf of Middle South Energy, Inc. and South Mississippi Electric Power Association herewith files this Amendment No. 6 to their Application for Licenses in the form of additional information to the FER, a reorganization o' section numbers in each volume of the FER, and the addition of Figure 2.4-15.

Respectfully submitted,

Mississippi Power & Light Company

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

STATE OF MISSISSIPPI
COUNTY OF HINDS

J. P. McGaughy, Jr., being duly sworn, states that he is Assistant Vice President - Nuclear Production of Mississippi Power & Light Company, that he is authorized on the part of said Company to sign and file with the Nuclear Regulatory Commission this Amendment No. 6 to the Application for Licenses (Final Environmental Report) on behalf of Company, Middle South Energy, Inc. and South Mississippi Electric Power Association; that he signed the forgoing amendment 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 his 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 16 day of FEB., 1981.

(SEAL)

Notary Public

My commission expires:

My Commission Expires Jan. 31, 1983

GG
ER

MISSISSIPPI POWER & LIGHT COMPANY
GRAND GULF NUCLEAR STATION
UNITS 1 AND 2
DOCKET NOS. 50-416 and 417
AMENDMENT NO. 6

INSTRUCTIONS FOR FILING AMENDMENT NO. 6, 2/81

Prior to insertion of Amendment 6, material in Volumes 1 through 4 of the ER should be shifted between volumes so that the following configuration is achieved.

VOLUME 1

Volume 1 title page

Summary Table of Contents

Chapter 1

Section 1.1
Section 1.2
Section 1.3

Chapter 2

Section 2.1
Section 2.2
Section 2.3

VOLUME 2

Volume 2 title page

Summary Table of Contents

Chapter 2 (Cont.)

Section 2.4
Section 2.5
Section 2.6
Section 2.7

Chapter 3

Section 3.1
Section 3.2
Section 3.3
Section 3.4
Section 3.5
Section 3.6
Section 3.7
Section 3.8
Section 3.9

Chapter 4

Section 4.1
Section 4.2
Section 4.3
Section 4.4
Section 4.5

GG
ER

INSTRUCTIONS (Cont.)

VOLUME 3

Volume 3 title page

Summary Table of Contents

Chapter 5

Section 5.1
Section 5.2
Section 5.3
Section 5.4
Section 5.5
Section 5.6
Section 5.7
Section 5.8

Chapter 6

Section 6.1
Section 6.2
Section 6.3
Section 6.4

Chapter 7

Section 7.1
Section 7.2
Section 7.3

Chapter 8

Section 8.1
Section 8.2

Chapter 9

Section 9.1
Section 9.2
Section 9.3
Section 9.4

VOLUME 4

Volume 4 title page

Summary Table of Contents

Chapter 10

Section 10.1
Section 10.2
Section 10.3
Section 10.4
Section 10.5
Section 10.6
Section 10.7
Section 10.8
Section 10.9
Section 10.10

Chapter 11

Chapter 12

Chapter 13

Questions and Responses

Amendment 1

Amendment 2

Amendment 3

Amendment 4

Amendment 5

Remove and insert the ER pages and figure listed below. The dash (---) in the remove column indicates no action required.

Remove	Insert
VOLUME 1	
Page 2-xxvii/2-xxviii	Page 2-xxvii/2-xxviii

GG
ER

INSTRUCTIONS (Cont.)

Remove	Insert
VOLUME 2	
Page 2.4-11/- ---	Page 2.4-11/- Figure 2.4-15
VOLUME 4	

At the end of Volume 4 insert the following in the order shown:

1. Amendment 6 tab
2. Transmittal letter
3. Instructions for filing

LIST OF FIGURES (Cont.)

LIST OF FIGURES (Cont.)

6

Chemical analyses of samples taken from the Mississippi River alluvial aquifer indicate the water is a sodium-calcium bicarbonate type, high in total dissolved solids (358 to 604 ppm). Samples of ground water from the terrace deposits are a calcium-magnesium bicarbonate type with a total dissolved solids contents of 277 to 442 ppm. The total dissolved solids concentration of a water sample from the Catahoula Formation is 460 ppm. The surface water samples are low in dissolved solids and less mineralized than ground water sampled in the site locality.

The results of past chemical analysis of both Mississippi surface water (Subsection 2.4.4) and the Mississippi alluvial aquifer (Subsection 2.4.5.5) will be supplemented by the water quality monitoring program for the plant service water (PSW) system (Subsection 3.4.2.2). This program calls for daily analysis of the PSW for pH, conductivity, alkalinity, hardness, and iron. The weekly analytical program calls for microbiological analyses and determination of total suspended solids, free available chlorine, and total residual chlorine. The daily and weekly sampling schedules and parameters will be adjusted as necessary for proper system operation. 6

2.4.6 References

1. U. S. Army Corps of Engineers, Mississippi River Commission, Lower Mississippi Region Comprehensive Study, Vicksburg, Mississippi, Appendices C and L, 1974.

2. U. S. Geological Survey, Surface Water Records, Water Supply Papers, 1929-1973.

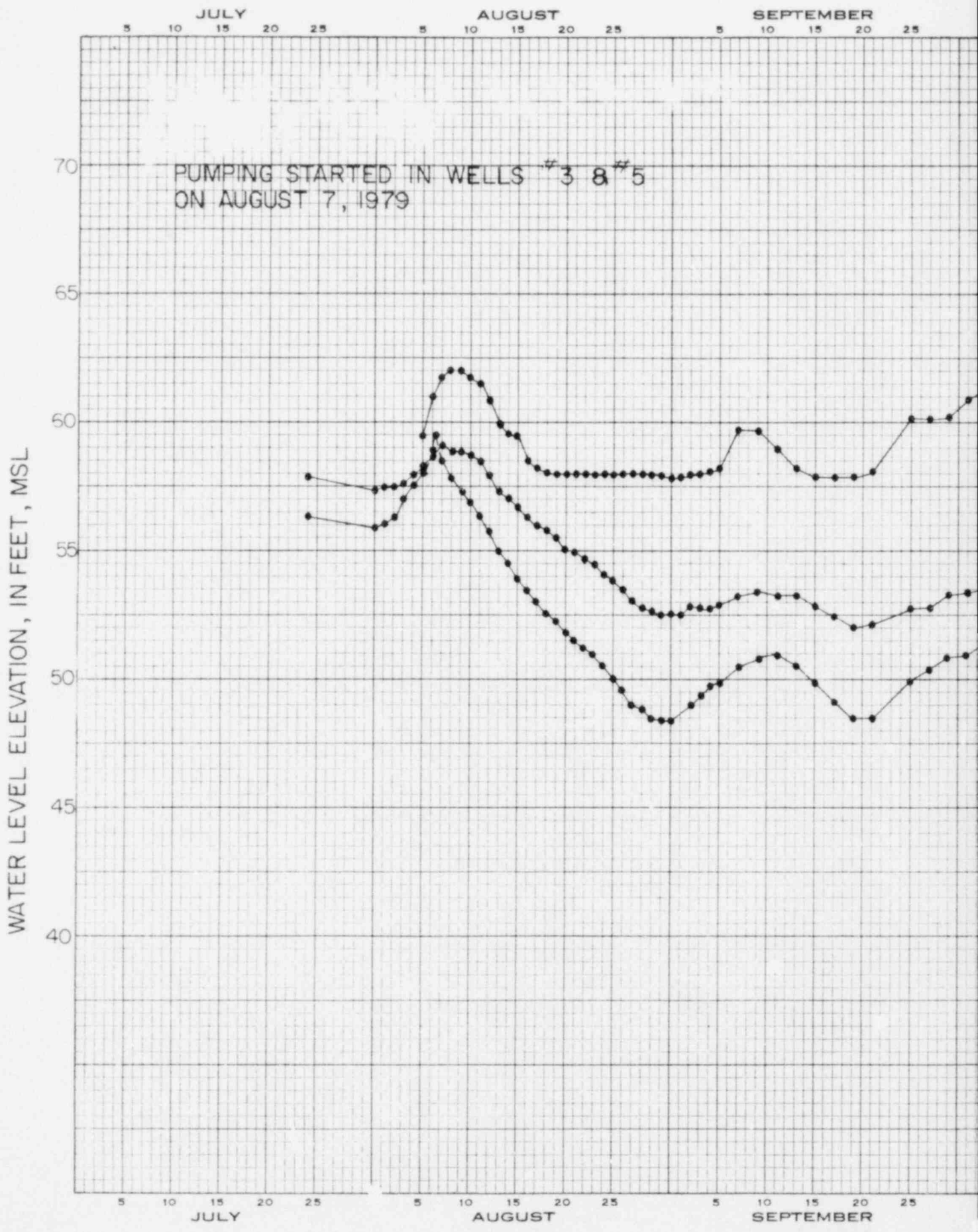
3. Mississippi Power & Light Company, "Environmental Field Measurements Programs," Grand Gulf Nuclear Station Units 1 and 2, Interim Reports, 1973.

4. Mississippi Power & Light Company, "Environmental Field Measurements Programs", Grand Gulf Nuclear Station Units 1 and 2, Final Report, 1973.

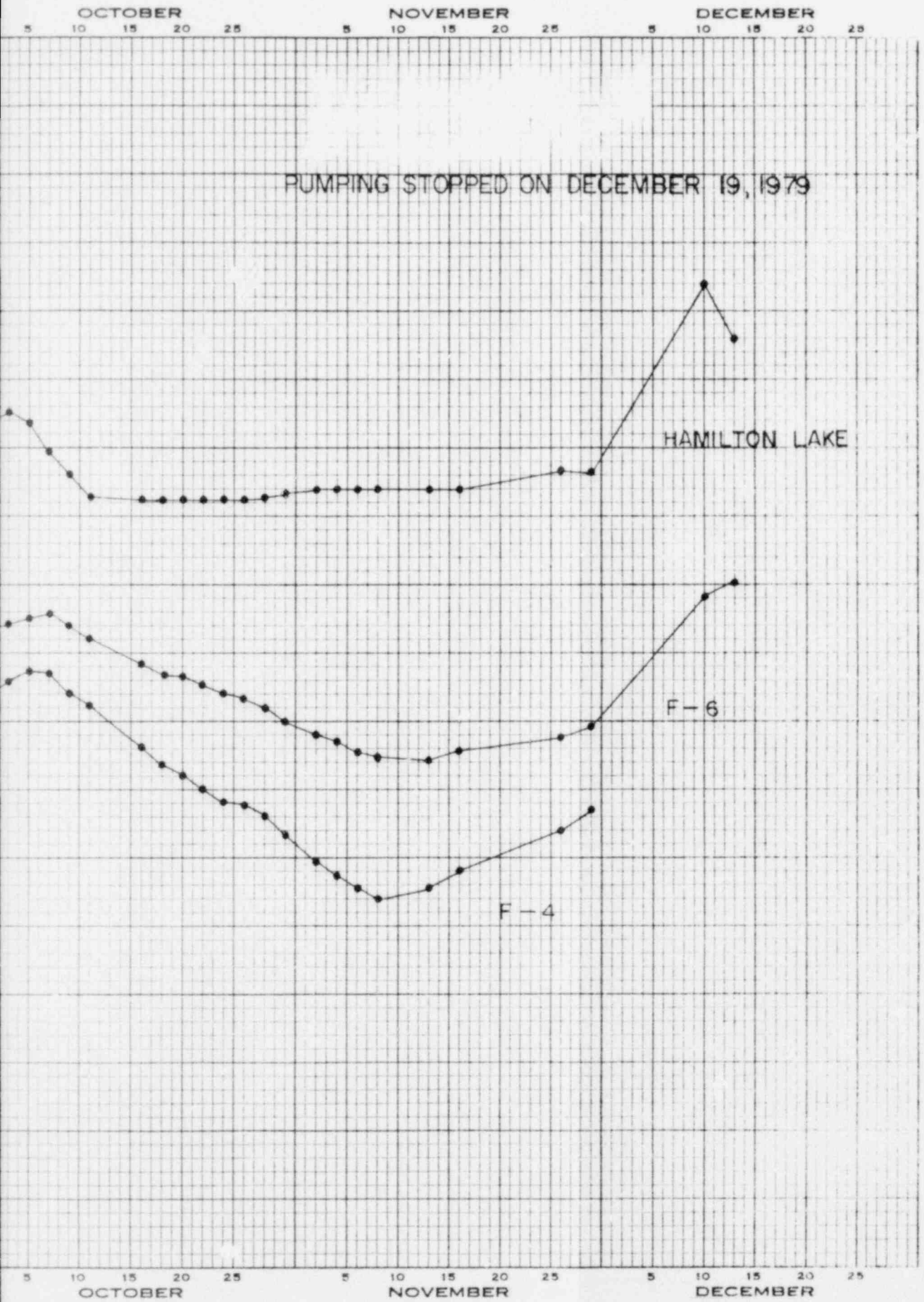
5. Mississippi Power & Light Company, "Environmental Field Measurements Programs", Grand Gulf Nuclear Station Units 1 and 2, Supplementary Report, 1974.

6. Environmental Protection Agency, National Water Quality Inventory Report to the Congress, Office of Water Planning and Standards, Washington, D. C. (EPA-440/9-74-001), Vol. 1, 1974.

7. Callahan, J.A., et al, 1963, Water Resources of Adams, Claiborne, Jefferson, and Warren Counties, Mississippi: U.S. Geol. Survey and Mississippi Ind. and Tech. Res. Com. Bull. 63-1.


JULY
AUGUST
SEPTEMBER
5 10 15 20 25
PUMPING STARTED IN WELLS #3 & #5
ON AUGUST 7, 1979
70
65
60
55
50
45
40
WATER LEVEL ELEVATION, IN FEET, MSL

1979



HYDROGRAPHS OF HAMILTON LAKE AND OBSERVATION WELLS F-4 AND F-6 DURING PUMP TESTS

FIGURE 2.4-15

MISSISSIPPI POWER & LIGHT COMPANY
GRAND GULF NUCLEAR STATION
UNITS 1 & 2
ENVIRONMENTAL REPORT

Amend. 6 2/81