

JUL 19 1979

Distribution

Docket File  
NRC PDR  
Local PDR  
LWR #2 File  
Attorney, ELD  
DBVassallo  
RABenedict  
JLee  
IE (3)  
NDube  
MJinks (4)  
DCrutchfield  
RDiggs  
IDinitz  
PCota

MSlater  
ATOalston  
JRutberg  
NSIC  
TIC  
ACRS (16)  
SVarga

Docket No. 50-382

Mr. D. L. Aswell  
Vice President, Power Production  
Louisiana Power & Light Company  
142 Delaronde Street  
New Orleans, Louisiana 70174

Dear Mr. Aswell:

SUBJECT: ORDER EXTENDING CONSTRUCTION COMPLETION DATE  
(Waterford Steam Electric Station, Unit No. 3)

In response to your request of June 23, 1977, and your letter dated September 5, 1978, providing additional information, the Nuclear Regulatory Commission has issued an Order extending the construction completion date for the Waterford Steam Electric Station, Unit 3. The referenced Order extends the construction completion date specified in CPPR-103 to June 1, 1982.

A copy of the Order, the staff evaluation, negative declaration and environmental impact appraisal are enclosed for your information. The Order and the negative declaration have been transmitted to the Office of the Federal Register for publication.

Sincerely,

Original signed by

D. B. Vassallo, Acting Director  
Division of Project Management  
Office of Nuclear Reactor Regulation

**REGULATORY DOCKET FILE COPY**

Enclosures:  
As Stated

ccs w/enclosures:  
See page 2

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\*See previous sheet for concurrences

\* \* \* \* \*

OFFICE	LWR#2:DPM	LWR#2:DPM	LWR#2:DPM	OELD	AAAD LWR:DPM	DPM:ADir.
SURNAME	JLee	RABenedict	RLBaer	HMcGurren	SVarga	DBVassallo
DATE	6/28/79	6/ /79	6/ /79	6/ /79	6/29/79	6/29/79

Distribution

Docket File  
 NRC PDR  
 Local PDR  
 LWR #2 File  
 Attorney, ELD  
 RSBoyd  
 DFRoss  
 DBVassallo  
 RABenedict  
 JLee  
 IE(3)  
 NDube  
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 DCrutchfield  
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Docket No. 50-382

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 Vice President, Power Production  
 Louisiana Power & Light Company  
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SUBJECT: ORDER EXTENDING CONSTRUCTION COMPLETION DATE  
 (Waterford Steam Electric Station, Unit No. 3)

In response to your request of June 23, 1977, and your letter dated September 5, 1978, providing additional information, the Nuclear Regulatory Commission has issued an Order extending the construction completion date for the Waterford Steam Electric Station, Unit 3. The referenced Order extends the construction completion date specified in CPPR-103 to June 1, 1982.

A copy of the Order, the staff evaluation, negative declaration and environmental impact appraisal are enclosed for your information. The Order and the negative declaration have been transmitted to the Office of the Federal Register for publication.

Sincerely,

Roger S. Boyd, Director  
 Division of Project Management  
 Office of Nuclear Reactor Regulation

Enclosures:  
 As Stated

ccs w/enclosures:  
 See page 2

OFFICE	DPM:LWR #2	DPM:LWR #2	DPM:LWR #2	OELD	DPM:LWR:AD	DPM
SURNAME	JLee:ab	RABenedict	RLBaer	HMcGuire	DBVassallo	RSBoyd
DATE	6/13/79	6/13/79	1/13/79	6/13/79	6/13/79	1/179

Mr. D. L. Aswell  
Vice President, Power Production  
Louisiana Power & Light Company  
142 Delaronde Street  
New Orleans, Louisiana 70174

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Louisiana Office of Conservation  
ATTN: Administrator  
Nuclear Energy Division  
P. O. Box 14690  
Baton Rouge, Louisiana 70808

President, Police Jury  
St. Charles Parrish  
Hahnville, Louisiana 70057

U. S. Environmental Protection Agency  
ATTN: EIS Coordinator  
Region VI Office  
1201 Elm Street  
First International Building  
Dallas, Texas 75270

LOUISIANA POWER & LIGHT COMPANY

WATERFORD STEAM ELECTRIC STATION, UNIT NO. 3

DOCKET NO. 50-382

ORDER EXTENDING CONSTRUCTION COMPLETION DATE

Louisiana Power & Light Company is the holder of Construction Permit No. CPPR-103 issued by the Atomic Energy Commission\* on November 14, 1974 for the construction of the Waterford Steam Electric Station, Unit No. 3 presently under construction at the company's site in St. Charles Parish, Louisiana. By letter dated June 23, 1977, Louisiana Power and Light Company filed a request for an extension of the latest construction completion date for the facility from December 31, 1979 to August 1, 1982. In response to our letter dated February 23, 1978, the applicant filed additional information on September 5, 1978 to justify the request. The extension was requested because construction has been delayed due to (1) delay in receipt of the construction permit due primarily to the antitrust review; (2) engineering development; (3) additional quality assurance requirements; (4) lower than expected productivity of construction subcontractors; and (5) temporary reductions in construction work force.

This action involves no significant hazards consideration; good cause has been shown for the delay; and the extension is for a reasonable period, the bases for which are set forth in the staff evaluation dated July 19, 1979. The preparation of an environmental impact statement for this particular action is not warranted.

\*Effective January 20, 1975, the Atomic Energy Commission became the Nuclear Regulatory Commission and permits in effect on that day continued under the authority of the Nuclear Regulatory Commission.

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because there will be no environmental impact attributable to the Order other than that which has already been predicted and described in the Commission's Final Environmental Statement for the Waterford Steam Electric Station, Unit No. 3 published in March 1973 and the Draft Environmental Statement published in October 1972. A Negative Declaration and an Environmental Impact Appraisal have been prepared and are available, as are the above stated documents, for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C. 20555 and at the local public document room established for the Waterford Steam Electric Station, Unit No. 3 in the University of New Orleans Library, Louisiana Collection, Lakefront, New Orleans, Louisiana 70122.

It is HEREBY ORDERED THAT the latest completion date for CPPR-103 be extended from December 31, 1979, to June 1, 1982.

FOR THE NUCLEAR REGULATORY COMMISSION,

Original signed by

D. B. Vassallo, Acting Director  
 Division of Project Management  
 Office of Nuclear Reactor Regulation

DATE OF ISSUANCE: July 19, 1979

\*See previous sheet for concurrences

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OFFICE	LWR#2:DPM	LWR#2:DPM	LWR#2:DPM	OELD	AAD:LWR-DPM	ADir:DPM
SURNAME	JLee:bm	RABenedict	RLBaer	HMcGurren	SALanga	DBVassallo
DATE	6/ /79	6/ /79	6/ /79	6/ /79	6/ /79	6/29/79

because there will be no environmental impact attributable to the Order other than that which has already been predicted and described in the Commission's Final Environmental Statement for the Waterford Steam Electric Station, Unit No. 3 published in March 1973 and the Draft Environmental Statement published in October 1972. A Negative Declaration and an Environmental Impact Appraisal have been prepared and are available, as are the above stated documents, for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C. 20555 and at the local public document room established for the Waterford Steam Electric Station, Unit No. 3 in the University of New Orleans Library, Louisiana Collection, Lakefront, New Orleans, Louisiana 70122.

It is HEREBY ORDERED THAT the latest completion date for CPPR-103 be extended from December 31, 1979, to June 1, 1982.

FOR THE NUCLEAR REGULATORY COMMISSION,

Roger S. Boyd, Director  
Division of Project Management  
Office of Nuclear Reactor Regulation

DATE OF ISSUANCE:

OFFICE	DPM:LWR #2	DPM:LWR #2	DPM:LWR #2	DPM	DPM:LWR:AD	DPM
SURNAME	JL [initials]	RABenedict	RLBaer	HMcGurren	DBVassallo	RSBoyd
DATE	6/13/79	6/13/79	6/13/79	6/21/79	7/79	7/79

EVALUATION OF REQUEST FOR EXTENSION OF  
CONSTRUCTION PERMIT NO. CPPR-103  
FOR THE WATERFORD STEAM ELECTRIC STATION, UNIT NO. 3  
DOCKET NO. 50-382

INTRODUCTION

Construction Permit No. CPPR-103 was issued to Louisiana Power & Light Company (LP&L) on November 14, 1974 authorizing construction of the Waterford Steam Electric Station, Unit No. 3. The latest date for completion of construction, as stated in the permit, is December 31, 1979. On June 23, 1977, LP&L filed a request for extension of the latest date for completion of construction to August 1, 1982. Our letter of February 23, 1978 to LP&L requested additional information to justify the extension. Subsequently, LP&L submitted a letter dated September 5, 1978 in response to our request.

The Commission's Regulations (10 CFR Section 50.55(b)) permit extension of the completion date upon a showing of good cause. A showing of good cause may be made if the factors causing the delay are beyond the control of the permit holder.

The permit holder has attributed the delay to several factors. We have evaluated these factors and have found good cause shown, for the reasons stated below, for extending the latest completion date to June 1, 1982.

EVALUATION

LP&L stated in its letters that the reasons for the delay in completion of construction are (1) delay in receipt of the construction permit due primarily to time spent in resolving antitrust issues, (2) engineering development, (3) additional quality assurance requirements; (4) lower than expected productivity of construction subcontractors, and (5) temporary reductions in construction work force. The following discussion provides details concerning the reasons for the delay.

The applicant submitted Amendment No. 46 to the Application on January 23, 1974. This amendment included revised construction completion dates which were based on the assumption that issuance of a construction permit was imminent. The construction permit was not issued, however, until November 14, 1974 when such issuance was authorized by the Atomic Safety and Licensing Board. We conclude that ten months of the overall delay can be reasonably attributed to the delay in issuance of the construction permit.

LP&L had begun site-preparation work prior to issuance of the construction permit, as permitted under the Commission's regulations in effect at the time. However, this work was discontinued and the site was demobilized when uncertainty arose

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regarding the resolution of antitrust matters. Remobilization and site preparation work were re-commenced when the construction permit was issued. This delay in completion of site preparation work caused a 10.5-month delay in the start of concrete work. We conclude that 10 1/2 months of the overall delay in construction completion can reasonably be attributed to the delay in completion of site preparation work.

The three engineering changes that contributed to the delay are as follows. First, the reactor pressure vessel support and cavity were redesigned to account for asymmetric blowdown loads resulting from a postulated loss-of-coolant accident at the reactor vessel nozzle. Consideration of this matter was raised by the NRC staff after the Waterford 3 construction permit was issued. This caused an estimated ten months delay with an associated minimum impact on the construction critical path of approximately two months.

Second, the electrical and instrumentation and control cable trays were redesigned and re-routed, and additional embedded conduit and barriers were provided, in order to meet staff requirements concerning fire protection. The minimum impact of this effort on the critical path is estimated to be 1.0 to 1.5 months. LP&L also attributes a cumulative delay of approximately three months to the fact that the production of the concrete construction craftsmen was lower than anticipated. The rate of concrete placement was adversely affected by the revisions in the number and location of embedded plates to support new cable tray routings and piping supports.

Third, LP&L changed its criteria regarding the dynamic effects of pipe rupture. This change was made following issuance of new guidance by the staff in 1975. The minimum impact of this effort is estimated to be 1.5 months on the critical path.

We are aware of the impact of the new design criteria that have been applied to the three areas noted above. We conclude that eight months of the overall delay in construction completion can reasonably be attributed to changed design criteria for reactor pressure vessel supports, for fire protection, and for dynamic effects of pipe rupture.

In its September 5, 1978 letter, LP&L discussed additional impacts on the construction schedule. However, the applicant did not establish the extent, in time, of the delays attributable to these impacts. We are therefore, unable to conclude a reasonably attributable delay to them.

We have reviewed the information provided in LP&L's letters and we conclude that a 29-month cumulative delay in construction completion can reasonably be attributed to the factors that LP&L has discussed and that this delay has been caused by factors beyond LP&L's control. We, therefore, conclude that a June 1, 1982 completion date for this facility is reasonable.

SIGNIFICANT HAZARDS CONSIDERATION

We find that, because the request is merely for an extension of time to complete work already reviewed and approved, no significant hazard consideration is involved in granting the request. Therefore, prior notice of this action is not required.

CONCLUSION

For the reasons stated herein, the staff concludes that issuance of an Order extending the latest construction completion date for construction of the Waterford Steam Electric Station Unit 3, Construction Permit No. CPPR-103, to June 1, 1982, is warranted.

*Robert A. Benedict*

Robert A. Benedict, Project Manager  
Light Water Reactors Branch No. 2  
Division of Project Management

*Robert L. Baer*

Robert L. Baer, Chief  
Light Water Reactors Branch No. 2  
Division of Project Management

Date of Issuance: July 19, 1979

EVALUATION OF REQUEST FOR EXTENSION OF

CONSTRUCTION PERMIT NO. CPPR-103

FOR THE WATERFORD STEAM ELECTRIC STATION, UNIT NO. 3

DOCKET NO. 50-382

INTRODUCTION

Construction Permit No. CPPR-103 was issued to Louisiana Power & Light Company (LP&L) on November 14, 1974 authorizing construction of the Waterford Steam Electric Station, Unit No. 3. The latest date for completion of construction, as stated in the permit, is December 31, 1979. On June 23, 1977, LP&L filed a request for extension of the latest date for completion of construction to August 1, 1982. Our letter of February 23, 1978 to LP&L requested additional information to justify the extension. Subsequently, LP&L submitted a letter dated September 5, 1978 in response to our request.

The Commission's Regulations (10 CFR Section 50.55(b)) permit extension of the completion date upon a showing of good cause. A showing of good cause may be made if the factors causing the delay are beyond the control of the permit holder.

The permit holder has attributed the delay to several factors. We have evaluated these factors and have found good cause shown, for the reasons stated below, for extending the latest completion date to June 1, 1982.

EVALUATION

LP&L stated in its letters that the reasons for the delay in completion of construction are (1) delay in receipt of the construction permit due primarily to time spent in resolving antitrust issues, (2) engineering development, (3) additional quality assurance requirements; (4) lower than expected productivity of construction subcontractors, and (5) temporary reductions in construction work force. The following discussion provides details concerning the reasons for the delay.

The applicant submitted Amendment No. 46 to the Application on January 23, 1974. This amendment included revised construction completion dates which were based on the assumption that issuance of a construction permit was imminent. The construction permit was not issued, however, until November 14, 1974 when such issuance was authorized by the Atomic Safety and Licensing Board. We conclude that ten months of the overall delay can be reasonably attributed to the delay in issuance of the construction permit.

LP&L had begun site-preparation work prior to issuance of the construction permit, as permitted under the Commission's regulations in effect at the time. However, this work was discontinued and the site was demobilized when uncertainty arose

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The three engineering changes that contributed to the delay are as follows. First, the reactor pressure vessel support and cavity were redesigned to account for asymmetric blowdown loads resulting from a postulated loss-of-coolant accident at the reactor vessel nozzle. Consideration of this matter was raised by the NRC staff after the Waterford 3 construction permit was issued. This caused an estimated ten months delay with an associated minimum impact on the construction critical path of approximately two months.

Second, the electrical and instrumentation and control cable trays were redesigned and re-routed, and additional embedded conduit and barriers were provided, in order to meet staff requirements concerning fire protection. The minimum impact of this effort on the critical path is estimated to be 1.0 to 1.5 months. LP&L also attributes a cumulative delay of approximately three months to the fact that the production of the concrete construction craftsmen was lower than anticipated. The rate of concrete placement was adversely affected by the revisions in the number and location of embedded plates to support new cable tray routings and piping supports.

Third, LP&L changed its criteria regarding the dynamic effects of pipe rupture. This change was made following issuance of new guidance by the staff in 1975. The minimum impact of this effort is estimated to be 1.5 months on the critical path.

We are aware of the impact of the new design criteria that have been applied to the three areas noted above. We conclude that eight months of the overall delay in construction completion can reasonably be attributed to changed design criteria for reactor pressure vessel supports, for fire protection, and for dynamic effects of pipe rupture.

In its September 5, 1978 letter, LP&L discussed additional impacts on the construction schedule. However, the applicant did not establish the extent, in time, of the delays attributable to these impacts. We are therefore, unable to conclude a reasonably attributable delay to them.

We have reviewed the information provided in LP&L's letters and we conclude that a 29-month cumulative delay in construction completion can reasonably be attributed to the factors that LP&L has discussed and that this delay has been caused by factors beyond LP&L's control. We, therefore, conclude that a June 1, 1982 completion date for this facility is reasonable.

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SIGNIFICANT HAZARDS CONSIDERATION

We find that, because the request is merely for an extension of time to complete work already reviewed and approved, no significant hazard consideration is involved in granting the request. Therefore, prior notice of this action is not required.

CONCLUSION

For the reasons stated herein, the staff concludes that issuance of an Order extending the latest construction completion date for construction of the Waterford Steam Electric Station Unit 3, Construction Permit No. CPPR-103, to June 1, 1982, is warranted.

Original signed by

Robert A. Benedict, Project Manager  
Light Water Reactors Branch No. 2  
Division of Project Management

Original signed by

Robert L. Baer, Chief  
Light Water Reactors Branch No. 2  
Division of Project Management

Date of Issuance: July 19, 1979

OFFICE	DPM:LWR #2	DPM:LWR #2	OELD	DPM:LWR #2
SURNAME	JL Leedab	RABenedict	HMcGurken	RLBaer
DATE	6/13/79	6/13/79	6/12/79	6/13/79

NEGATIVE DECLARATIONSUPPORTING EXTENSION OF CONSTRUCTION PERMIT NO. CPPR-103EXPIRATION DATE FOR THEWATERFORD STEAM ELECTRIC STATION, UNIT NO. 3DOCKET NO. 50-382

The U. S. Nuclear Regulatory Commission (the Commission) has reviewed the Louisiana Power and Light Company's (permittee) request to extend the latest construction completion date of the construction permit for the Waterford Steam Electric Station, Unit No. 3 (CPPR-103) which is located in St. Charles Parish, Louisiana. The permittee has requested that the earliest and latest dates for completion of construction of the Waterford plant be extended from June 1, 1978 and December 31, 1979 to August 1, 1980 and August 1, 1982.

The Commission's Division of Site Safety and Environmental Analysis (staff) has prepared an environmental impact appraisal relative to this change to CPPR-103. Based upon this appraisal, the staff concluded that an environmental impact statement for this particular action is not warranted because, pursuant to the Commission's regulations in 10 CFR Part 51 and the Council on Environmental Quality's Guidelines, 40 CFR 1500.6, the Commission has determined that this change to the construction permit is not a major Federal action significantly affecting the human environment.

The environmental impact appraisal is available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C. and at the Local Public Document Room established for the Waterford Steam

OFFICE	Electric Station Unit 3 in the University of New Orleans Library,
SURNAME	Louisiana Collection Lakefront, New Orleans, Louisiana 70122.
DATE	7-9-81 150 454

Dated at Bethesda, Maryland this 19th day of July,  
1979.

FOR THE NUCLEAR REGULATORY COMMISSION

Ronald L. Ballard, Chief  
Environmental Projects Branch 1  
Division of Site Safety and  
Environmental Analysis

OFFICE	DSE:EP-1	DSE:EP-1	OELD	DSE:EP-1		
SURNAME	Slater:mh	PCCota PC	6/17/79	RLBallard		
DATE	12/6/78	12/19/79	2/1/79	2/1/81		



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

ENVIRONMENTAL IMPACT APPRAISAL

BY THE DIVISION OF SITE SAFETY AND ENVIRONMENTAL ANALYSIS

SUPPORTING EXTENSION OF CONSTRUCTION PERMIT NO. CPPR-103

EXPIRATION DATE FOR THE

WATERFORD STEAM ELECTRIC STATION, UNIT NO. 3

DOCKET NO. 50-382

ENVIRONMENTAL IMPACT APPRAISAL

Description of Proposed Action

By letter dated June 23, 1977, as supplemented by letter dated September 5, 1978, Louisiana Power and Light Company (LP&L) filed a request with the Nuclear Regulatory Commission (NRC) to extend the earliest and latest dates for completion of construction of the Waterford Steam Electric Station, (SES) Unit No. 3, as specified in Construction Permit No. CPPR-103. The action proposed by the permittee is the issuance of an Order providing for extension of the earliest and latest construction completion dates from June 1, 1978 and December 31, 1979 to August 1, 1980 and August 1, 1982.

The staff's Final Environmental Statement (FES) relating to the Waterford Steam Electric Station, Unit No. 3, was published in March 1973 in support of issuance of the construction permit.

Environmental Impact of the Proposed Action

A. Need for Power

The Louisiana Power and Light Company is a wholly-owned subsidiary of Middle South Utilities (MSU) and one of five operating electric utility companies comprising the MSU System.

LP&L has revised the commercial operating date for its Waterford SES Unit 3 from the summer of 1977 to October 1981. This new proposed commercial operating date represents approximately a four-year delay from that considered when the construction permit was initially issued in 1973. This delay is consistent, however, with the lower demand growth experienced since 1973 and the applicant's latest growth projections for the future. Based on data submitted by LP&L in its ER (OL), Waterford 3 would be required in the early 1980's by both LP&L and the MSU System to maintain acceptable peak load reserve margin requirements.

The staff has reviewed the LP&L and MSU System capacity plans and demand projections and concludes that Waterford 3 can be delayed to October 1981 without adversely affecting reliability on their systems.

The staff bases this conclusion on its review of an independent forecasting model which provides demand projections pertinent to these service areas. This review examined demand forecasts prepared for the U.S. Nuclear Regulatory Commission by the Energy Division of the Oak Ridge National Laboratory.<sup>1/</sup> This study supports the applicant's decision to slip the proposed commercial operation of Waterford 3, as it indicates that demand will grow at even a slower rate than that presently envisioned by the applicant.

#### B. Community and Economic Impacts

The construction of Waterford 3 is reported to be 64% complete and the project is currently employing construction labor at levels which are below those prevailing at peak.<sup>2/</sup> The staff expects that the required work force will commute from the area within approximately 50 miles of the station site. Within this area, the major labor pools are New Orleans (estimated 1977 population of 1,643,646) and Baton Rouge (estimated 1977 parish population of 321,647). As the station's requirements for craftsmen and managerial labor are only a small percentage of the regional work force in the construction industry, the staff expects that the aggregate migration of labor during the construction phase will be negligible. Such in-movement that does occur will be distributed to a number of communities within proximity of the construction site and in no individual community should the impact be significant.

The staff confirmed that labor supply has been generally adequate to meet demand, that spot shortages among highly skilled craftsmen (pipefitters and electricians) had occurred, but that such shortages were eventually being filled without any significant adverse impact on the construction schedule.<sup>3/</sup> The local school system has not been measurably overloaded by children whose families work at the plant. Moreover, residents living closest to the construction site have not voiced complaints to Parish officials.<sup>4/</sup>

Within three miles of the plant, the estimated 1977 population is 2,303 (Table 2.1-1, ER (OL)). Louisiana Highway 18 which provides access to the site from New Orleans and Baton Rouge is expected to carry the bulk of the construction-related traffic. Because of the low resident population concentration in the area, and because highway traffic would move only through small communities within 10 miles of the site, the staff expects that traffic congestion would not produce impacts other than those associated with temporary inconvenience.

The staff has confirmed that traffic congestion has been notable on Highway 18, but that several Parish deputies have been hired part-time by the Applicant to assist in traffic control. In addition, violations for speeding in the vicinity of the construction site have increased. Complaints regarding traffic congestion on roads other than Highway 18 have not been voiced by local residents.<sup>57</sup> The staff concludes that as construction has passed the phase of peak manpower utilization, the communities surrounding the site have already experienced the maximum level of socioeconomic impacts associated with Waterford 3. Moreover, the staff's judgment is that the impacts at peak are not significant and are acceptable to the community at large. Finally, extension of the permit should not result in impacts which have not been previously identified by the staff and may result in a moderation of impacts compared to those associated with a compressed construction schedule.

#### Conclusion and Basis for Negative Declaration

On the basis of the foregoing analysis and the NRC staff evaluation, it is concluded that there will be no environmental impact attributable to the proposed action other than that already predicted and described in the Commission's FES in March 1973 (as updated by changes and corrections to the FES presented during the construction permit public hearing held in February 1974) and the Board's Initial Decision of April 30, 1974. Having made this conclusion, the Commission has further concluded that no environmental impact statement for the proposed action need be prepared, and that a negative declaration to this effect is appropriate.

Dated: July 19, 1979

## REFERENCES

- 1/ Regional Econometric Model for Forecasting Electricity Demand by Sector and by State. NUREG/CR-0250, ORNL/NUREG-49, Oak Ridge National Laboratory, October 1978.
- 2/ U.S. Nuclear Regulatory Commission, Construction Status Report, Nuclear Power Plants: Data as of April 30, 1979 (NUREG-0030), Vol. II, No. 2, May 1979, p. 3-90. Also, telephone conversation between Phillip C. Cota, U.S.N.R.C., and PLP officials on 7/6/79.
- 3/ Telephone conversation with Joseph Bertucci, Executive Secretary of the Building Trades Council in New Orleans, on 7/2/79.
- 4/ Telephone conversation with Kevin Friloux, St. Charles Parish Administrator, on 7/2/79.
- 5/ Telephone conversation with Herbert P. LeRay, Chief Deputy of the St. Charles Parish Sheriff's Office, on 7/2/79. Also, Friloux interview.

ENVIRONMENTAL IMPACT APPRAISAL

BY THE DIVISION OF SITE SAFETY AND ENVIRONMENTAL ANALYSIS

SUPPORTING EXTENSION OF CONSTRUCTION PERMIT NO. CPPR-103

EXPIRATION DATE FOR THE

WATERFORD STEAM ELECTRIC STATION, UNIT NO. 3

DOCKET NO. 50-382

ENVIRONMENTAL IMPACT APPRAISAL

Description of Proposed Action

By letter dated June 23, 1977, as supplemented by letter dated September 5, 1978, Louisiana Power and Light Company (LP&L) filed a request with the Nuclear Regulatory Commission (NRC) to extend the earliest and latest dates for completion of construction of the Waterford Steam Electric Station, (SES) Unit No. 3, as specified in Construction Permit No. CPPR-103. The action proposed by the permittee is the issuance of an Order providing for extension of the earliest and latest construction completion dates from June 1, 1978 and December 31, 1979 to August 1, 1980 and August 1, 1982.

The staff's Final Environmental Statement (FES) relating to the Waterford Steam Electric Station, Unit No. 3, was published in March 1973 in support of issuance of the construction permit.

Environmental Impact of the Proposed Action

A. Need for Power

The Louisiana Power and Light Company is a wholly-owned subsidiary of Middle South Utilities (MSU) and one of five operating electric utility companies comprising the MSU System.

LP&L has revised the commercial operating date for its Waterford SES Unit 3 from the summer of 1977 to October 1981. This new proposed commercial operating date represents approximately a four-year delay from that considered when the construction permit was initially issued in 1973. This delay is consistent, however, with the lower demand growth experienced since 1973 and the applicant's latest growth projections for the future. Based on data submitted by LP&L in its ER (OL), Waterford 3 would be required in the early 1980's by both LP&L and the MSU System to maintain acceptable peak load reserve margin requirements.

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The staff has reviewed the LP&L and MSU System capacity plans and demand projections and concludes that Waterford 3 can be delayed to October 1981 without adversely affecting reliability on their systems.

The staff bases this conclusion on its review of an independent forecasting model which provides demand projections pertinent to these service areas. This review examined demand forecasts prepared for the U.S. Nuclear Regulatory Commission by the Energy Division of the Oak Ridge National Laboratory.<sup>1/</sup> This study supports the applicant's decision to slip the proposed commercial operation of Waterford 3, as it indicates that demand will grow at even a slower rate than that presently envisioned by the applicant.

B. Community and Economic Impacts

The construction of Waterford 3 is reported to be 64% complete and the project is currently employing construction labor at levels which are below those prevailing at peak.<sup>2/</sup> The staff expects that the required work force will commute from the area within approximately 50 miles of the station site. Within this area, the major labor pools are New Orleans (estimated 1977 population of 1,643,646) and Baton Rouge (estimated 1977 parish population of 321,647). As the station's requirements for craftsmen and managerial labor are only a small percentage of the regional work force in the construction industry, the staff expects that the aggregate migration of labor during the construction phase will be negligible. Such in-movement that does occur will be distributed to a number of communities within proximity of the construction site and in no individual community should the impact be significant.

The staff confirmed that labor supply has been generally adequate to meet demand, that spot shortages among highly skilled craftsmen (pipefitters and electricians) had occurred, but that such shortages were eventually being filled without any significant adverse impact on the construction schedule.<sup>3/</sup> The local school system has not been measurably overloaded by children whose families work at the plant. Moreover, residents living closest to the construction site have not voiced complaints to Parish officials.<sup>4/</sup>

Within three miles of the plant, the estimated 1977 population is 2,303 (Table 2.1-1, ER (OL)). Louisiana Highway 18 which provides access to the site from New Orleans and Baton Rouge is expected to carry the bulk of the construction-related traffic. Because of the low resident population concentration in the area, and because highway traffic would move only through small communities within 10 miles of the site, the staff expects that traffic congestion would not produce impacts other than those associated with temporary inconvenience.

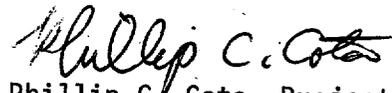
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The staff has confirmed that traffic congestion has been notable on Highway 18, but that several Parish deputies have been hired part-time by the applicant to assist in traffic control. In addition, violations for speeding in the vicinity of the construction site have increased. Complaints regarding traffic congestion on roads other than Highway 18 have not been voiced by local residents. The staff concludes that as construction has passed the phase of peak manpower utilization, the communities surrounding the site have already experienced the maximum level of socioeconomic impacts associated with Waterford 3. Moreover, the staff's judgment is that the impacts at peak are not significant and are acceptable to the community at large. Finally, extension of the permit should not result in impacts which have not been previously identified by the staff and may result in a moderation of impacts compared to those associated with a compressed construction schedule.

Conclusion and Basis for Negative Declaration

On the basis of the foregoing analysis and the NRC staff evaluation, it is concluded that there will be no environmental impact attributable to the proposed action other than that already predicted and described in the Commission's FES in March 1973 (as updated by changes and corrections to the FES presented during the construction permit public hearing held in February 1974) and the Board's Initial Decision of April 30, 1974. Having made this conclusion, the Commission has further concluded that no environmental impact statement for the proposed action need be prepared, and that a negative declaration to this effect is appropriate.

Dated: July 19, 1979



Phillip C. Cota, Project Manager  
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REFERENCES

- 1/ Regional Econometric Model for Forecasting Electricity Demand by Sector and by State. MIREG/CR-0250, ORNL/NUREG-49, Oak Ridge National Laboratory, October 1978.
- 2/ U.S. Nuclear Regulatory Commission, Construction Status Report, Nuclear Power Plants: Data as of April 30, 1979 (NUREG-0030), Vol. II, No. 2, May 1979, p. 3-90. Also, telephone conversation between Phillip C. Cota, U.S.N.R.C., and PLP officials on 7/6/79.
- 3/ Telephone conversation with Joseph Bertucci, Executive Secretary of the Building Trades Council in New Orleans, on 7/2/79.
- 4/ Telephone conversation with Kevin Friloux, St. Charles Parish Administrator, on 7/2/79.
- 5/ Telephone conversation with Herbert P. LeRay, Chief Deputy of the St. Charles Parish Sheriff's Office, on 7/2/79. Also, Friloux interview.

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ENVIRONMENTAL IMPACT APPRAISAL

BY THE DIVISION OF SITE SAFETY AND ENVIRONMENTAL ANALYSIS

SUPPORTING EXTENSION OF CONSTRUCTION PERMIT NO. CPPR-103

EXPIRATION DATE FOR THE

WATERFORD STEAM ELECTRIC STATION, UNIT NO. 3

DOCKET NO. 50-382

ENVIRONMENTAL IMPACT APPRAISAL

Description of Proposed Action

By letter dated June 23, 1977, as supplemented by letter dated September 5, 1978, Louisiana Power and Light Company filed a request with the Nuclear Regulatory Commission (NRC) to extend the earliest and latest dates for completion of construction of the Waterford Steam Electric Station, (SES) Unit No. 3, as specified in Construction Permit No. CPPR-103. The action proposed is the issuance of an Order providing for extension of the earliest and latest construction completion dates from June 1, 1978 and December 31, 1979 to August 1, 1980 and August 1, 1982.

The staff's Final Environmental Statement relating to the Waterford Steam Electric Station, Unit No. 3, was published in March 1973 and assumed commercial operation in 1977.

Environmental Impact of the Proposed Action

A. Need for Power

The Louisiana Power and Light Company (LP&L) is a wholly-owned subsidiary of Middle South Utilities and one of five operating electric utility companies comprising the Middle South Utilities System.

LP&L has requested that the commercial operating date for its Waterford SES Unit 3 be extended from the summer of 1977 to October 1981. This new proposed commercial operating date represents approximately a four year delay from that considered when the construction permit was initially issued in 1973. This delay is consistent, however, with the lower demand growth experienced since 1973 and the applicant's latest growth projections for the future. Based on data submitted by LP&L in its ER (OL), Waterford 3 would be required in the early 1980's by both LP&L and the Middle South Utilities System to maintain acceptable peak load reserve margin requirements.

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The staff has reviewed the LP&L and M.S.U. System capacity plans and demand projections and concludes that Waterford 3 can be delayed to October 1981 without adversely affecting reliability on their systems.

The staff bases this conclusion on its review of an independent forecasting model which provides demand projections pertinent to these service areas. This review examined demand forecasts prepared for the U.S. Nuclear Regulatory Commission by the Energy Division of the Oak Ridge National Laboratory. This study supports the applicant's decision to slip the proposed commercial operation of Waterford 3, as it indicates that demand will grow at even a slower rate than that presently envisioned by the applicant.

B. Community and Economic Impacts

The FES for Waterford 3 (1978) estimated a peak construction labor force of 1200 (p. IV-5). The estimate contained in LP&L's ER (OL) indicates a peak force of 2560 which would occur in 1978.

The required work force is expected to commute from the area within approximately 50 miles of the station site. Within this area the major labor pools are New Orleans (estimated 1977 population of 1,643,646) and Baton Rouge (estimated 1977 parish population of 321,647). As the station's requirements for craftsmen and managerial labor are only a small percentage of the regional work force in the construction industry (4% of 60,000), the staff expects that the aggregate migration of labor during the construction phase will be negligible. Such in-movement as does occur will be distributed to a number of communities within proximity of the construction site and in no individual community should the impact be significant.

Within three miles of the plant, the estimated 1977 population is 2,303 (Table 2.1-1, ER(OL)). Louisiana Highway 18 which provides access to the site from New Orleans and Baton Rouge is expected to carry the bulk of the construction-related traffic. Because of the low population concentration in the area, and because highway traffic would move only through small communities within 10 miles of the site, the staff expects that traffic congestion would not produce impacts other than those associated with temporary inconvenience.

Regional Econometric Model for Forecasting Electricity Demand by Sector and by State, NUREG/CR-0250, ORNL/NUREG-49, Oak Ridge National Laboratory, October 1978.

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Within three miles of the plant site, transient population is approximately equal to the resident population and is associated with industries that are located on Highway 18. No other facilities within the three-mile radius attract transient population. Although the potential for traffic conflict between construction-related traffic and industrial workers does exist, this problem can be effectively mitigated through differential rush hour scheduling.

The staff concludes that an extension of the construction permit would transpose socioeconomic impacts over time and extend the total time the local community would be subjected to construction-related impacts. These impacts are considered to be both insignificant and acceptable. The extension of the permit should not result in impacts which had not been previously identified and considered by the staff.

Conclusion and Basis for Negative Declaration

On the basis of the foregoing analysis and the NRC staff evaluation, it is concluded that there will be no environmental impact attributable to the proposed action other than that already predicted and described in the Commission's FES in March 1973 (as updated by changes and corrections to the FES presented during the hearing) and the Board's Initial Decision of April 30, 1974. Having made this conclusion, the Commission has further concluded that no environmental impact statement for the proposed action need be prepared, and that a negative declaration to this effect is appropriate.

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Note to Phil Cota

ENVIRONMENTAL ANALYSIS SUPPORTING EXTENSION OF WATERFORD,  
UNIT 3 CONSTRUCTION PERMIT

We cannot concur in the environmental analysis supporting the proposed amendment to the Waterford, Unit 3 Construction Permit which would extend the construction completion date by 2 1/2 years. We believe that further basis is needed to support the Staff's conclusions regarding A. Need for Power and B. Community and Economic Impacts.

More specifically to support the conclusion that the plant will be needed August 1, 1982 (previously December 1979), the Staff's analysis should 1. Set forth the demand estimate projections we rely on and indicate why we believe these are valid (This could be done by comparison with other demand projections for the plant's service area and demand estimates of other Federal agencies such as FPC). 2. Identify the reserve margins for the service area in 1981 with and without Waterford, Unit 3 and indicate why the reserve margin without the plant is not acceptable.

With regard to community and economic impacts, the Staff's analysis should explain how the impacts of construction over the extended period including the additional peak work force of 1360 (the FES for construction of Waterford, Unit 3 (1973) estimated a peak force of 1200 the present ER (OL) indicates a peak force of 1560) will be "similar in magnitude and character to those associated with industrial development in rural areas". Furthermore, the analysis should explain why such similarity in magnitude and character is acceptable. If the acceptability of such impacts is based on any mitigative actions (i.e., differential rush hour scheduling) indicate the feasibility of implementing such actions as well as any commitments on the part of the Applicant or local industry to implement such actions.



Henry J. McGurren  
Office of the Executive Legal Director

cc: JRGray  
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