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

DEC 18 1984

Docket No.: 50-382

Mr. R. S. Leddick
Senior Vice President - Nuclear Operations
Louisiana Power and Light Company
142 Delaronde Street
Louisiana, New Orleans 70174

Dear Mr. Leddick:

Subject: Waterford Steam Electric Station, Unit 3 - Issuance of Facility
Operating License

The U. S. Nuclear Regulatory Commission has issued the enclosed Facility - Operating License No. NPF-26 together with Technical Specifications and Environmental Protection Plan to Louisiana Power and Light Company for the Waterford Steam Electric Station, Unit 3 located in St. Charles Parish, Louisiana. This license authorizes operation of the Waterford Steam Electric Station, Unit 3, restricted to five percent power (169 megawatts thermal). Authorization to operate beyond five percent power (169 megawatts thermal) will require Commission approval.

A copy of a related Federal Register notice, the original of which has been forwarded to the Office of the Federal Register for publication, is enclosed. An assessment of the effect of 40 years license duration from license issuance date with respect to environmental matters is also enclosed.

For your information, enclosed are copies of Notices of Environmental Assessment and Finding of No Significant Impact. These notices relate to exemptions authorized by Facility Operating License No. NPF-26.

See docket

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Two signed copies of Amendment No. 2 to Indemnity Agreement No. B-92, which covers the activities authorized under License No. NPF-26, are also enclosed. Please sign both copies and return one copy to this office.

Sincerely,



Darrell G. Eisenhower, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Enclosures:

1. Facility Operating License No. NPF-26
2. Federal Register Notice
3. Amendment No. 2 to Indemnity Agreement B-92
4. Assessment of License Duration
5. Notice of Environmental Assessment (2)

cc w/encls.: See next page

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

LOUISIANA POWER AND LIGHT COMPANY

DOCKET NO. 50-382

WATERFORD STEAM ELECTRIC STATION, UNIT 3

FACILITY OPERATING LICENSE

License No. NPF-26

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for license filed by the Louisiana Power and Light Company (licensee) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;
 - B. Construction of the Waterford Steam Electric Station, Unit 3 (facility), has been substantially completed in conformity with Construction Permit No. CPPR-103 and the application as amended, the provisions of the Act, and regulations of the Commission;
 - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission (except as exempted from compliance in Sections 1.I. and 2.D. below);
 - D. There is reasonable assurance: (i) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I (except as exempted from compliance in Sections 1.I. and 2.D below);
 - E. The Louisiana Power & Light Company is technically qualified to engage in the activities authorized by this operating license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
 - F. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements", of the Commission's regulations;

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- G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs, and after considering available alternatives, the issuance of the Facility Operating License No. NPF-26, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied; and
 - I. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70, except that an exemption to the provisions of 10 CFR 70.24 is granted as described in Supplement No. 8 to the Safety Evaluation Report. This exemption is authorized under 10 CFR 70.24(d) and will not endanger life or property or the common defense and security and is otherwise in the public interest.
2. Based on the foregoing, Facility Operating License No. NPF-26 is hereby issued to the Louisiana Power and Light Company (licensee) to read as follows:
- A. This license applies to the Waterford Steam Electric Station, Unit 3, a pressurized water reactor and associated equipment (the facility), owned by Louisiana Power and Light Company (the licensee). The facility is located on the licensee's site in St. Charles Parish, Louisiana and is described in the Louisiana Power and Light Company Final Safety Analysis Report as amended, and the Environmental Report as amended.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Louisiana Power and Light Company (LP&L):
 - 1. Pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, use and operate the facility at the designated location in St. Charles Parish, Louisiana in accordance with the procedures and limitations set forth in this license;
 - 2. Pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended through Amendment 36;

3. Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
 4. Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
 5. Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility authorized herein.
- C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
1. Maximum Power Level

The licensee is authorized to operate the facility at reactor core power levels not in excess of 3390 megawatts thermal (100% power) in accordance with the conditions specified herein and in Attachment 1 to this license. The preoperational tests, startup tests and other items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license. Pending Commission approval, this license is restricted to power levels not to exceed 5 percent of full power (169 megawatts thermal).
 2. Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in the attached Appendix A and the Environmental Protection Plan contained in the attached Appendix B, are hereby incorporated in this license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.
 3. Antitrust Conditions

The licensee shall comply with the antitrust conditions in Appendix C to this license.

4. Broad Range Toxic Gas Detectors (Section 2.2.1, SSER 6*)

Prior to startup following the first refueling outage, the licensee shall propose technical specifications for the system for inclusion in Appendix A to this license.

5. Initial Inservice Inspection Program (Section 6.6, SSER 5)

By June 1, 1985, the licensee must submit an initial inservice inspection program for staff review and approval.

6. Environmental Qualification (Section 3.11, SSER 8)

(a) Prior to November 30, 1985, the licensee shall environmentally qualify all electrical equipment according to the provisions of 10 CFR 50.49.

(b) Prior to exceeding 5 percent of rated power the licensee shall provide an aging analysis for all non-metallic components in safety-related mechanical equipment located in a harsh environment.

7. Axial Fuel Growth (Section 4.2, SSER 5)

Prior to entering Startup (Mode 2) after each refueling, the licensee shall either provide a report that demonstrates that the existing fuel element assemblies (FEA) have sufficient available shoulder gap clearance for at least the next cycle of operation, or identify to the NRC and implement a modified FEA design that has adequate shoulder gap clearance for at least the next cycle of operation. This requirement will apply until the NRC concurs that the shoulder gap clearance provided is adequate for the design life of the fuel.

8. Emergency Preparedness (Section 13.3, SSER 8)

In the event that the NRC finds that the lack of progress in completion of the procedures in the Federal Emergency Management Agency's final rule, 44 CFR Part 350, is an indication that a major substantive problem exists in achieving or maintaining an adequate state of emergency preparedness, the provisions of 10 CFR Section 50.54(s)(2) will apply.

*The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report and/or its supplements wherein the license condition is discussed.

9. Fire Protection (Section 9.5.1, SSER 8)

- a. The licensee shall maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the facility through Amendment 36 and as approved in the SER through Supplement 8, subject to provisions b & c below.
- b. The licensee may make no change to features of the approved fire protection program which would decrease the level of fire protection in the plant without prior approval of the Commission. To make such a change the licensee must submit an application for license amendment pursuant to 10 CFR 50.90.
- c. The licensee may make changes to features of the approved fire protection program which do not decrease the level of fire protection without prior Commission approval, provided:
 - (1) such changes do not otherwise involve a change in a license condition or technical specification or result in an unreviewed safety question (see 10 CFR 50.59).
 - (2) such changes do not result in failure to complete the fire protection program approved by the Commission prior to license issuance.

The licensee shall maintain, in an auditable form, a current record of all such changes including an analysis of the effects of the change on the fire protection program and shall make such records available to NRC inspectors upon request. All changes to the approved program made without prior Commission approval shall be reported annually to the Director of the Office of Nuclear Reactor Regulation, together with supporting analyses.

- d. The licensee shall provide smoke detectors in the Control Room main control panels, which are installed in accordance with NFPA 72E, prior to startup following the first refueling outage.
- e. The licensee shall complete modifications resulting from its spurious signal analysis prior to startup following the first refueling outage, but in any case not later than June 1, 1987.

- f. The licensee shall provide neutron flux indication at LCP-43 which is electrically independent of the control room and cable vault prior to start-up following the first refueling outage, but in any case not later than June 1, 1987.
- g. The licensee shall provide a continuous fire watch in the relay room at the isolation panel from initial criticality until acceptable resolution of adverse effects, if any, of the loss of this panel on safe shutdown.

10. Initial Test Program (Section 14, SER)

The licensee shall conduct the post-fuel-loading initial test program described in Chapter 14 of the FSAR, as amended, without making any major modifications unless such modifications have prior NRC approval. Major modifications are defined as:

- a. elimination of any safety-related test*
- b. modification of objectives, test method, or acceptance criteria for any safety-related test
- c. performance of any safety-related test at a power level different from that stated in the FSAR by more than 5 percent of rated power
- d. failure to satisfactorily complete the entire initial startup test program by the time core burnup equals 120 effective full power days
- e. deviation from initial test program administrative procedures or quality assurance controls described in the FSAR
- f. delays in test program in excess of 30 days (14 days if power level exceeds 50 percent), concurrent with power operation. If continued power operation is desired during a delay, the licensee shall provide justification that adequate testing has been performed and evaluated to demonstrate that the facility can be operated at the planned power level with reasonable assurance that the health and safety of the public will not be endangered.

11. Emergency Response Capabilities (Section 22, SSER 8)

The licensee shall comply with the requirements of Supplement 1 to NUREG-0737 for the conduct of a Detailed Control Room Design Review (DCRDR). Prior to May 1, 1985, the licensee shall submit for staff review and approval the DCRDR Summary Report, including a description of the process used in carrying out the function and task analysis performed as a part of both the DCRDR and the Procedures Generation Package efforts.

*Safety-related tests are those tests which verify the design, construction, and operation of safety-related systems, structures, and equipment.

12. Reactor Coolant System (RCS) Depressurization Capability (Section 5.4.3, SSER 8)

Within six months of issuance of an operating license, the licensee shall submit the results of confirmatory tests regarding the depressurization capability of the auxiliary pressurizer spray (APS) system. This information must demonstrate that the APS system can perform the necessary depressurization to meet the steam generator single-tube rupture accident acceptance criteria (SRP 15.6.3) with loop charging isolation valve failed open. Should the test results fail to demonstrate that the acceptance criteria are met, the licensee must provide for staff review and approval, justification for interim operation, and a schedule for corrective actions.

13. Response to Salem ATWS Event (Section 7.2.9, SSER 8)

The licensee shall submit responses and implement the requirements of Generic Letter 83-28 on a schedule which is consistent with that given in the licensee's letter of May 30, 1984.

14. Spent Fuel Storage Racks (Section 9.1.2 SSER 8)

The licensee shall confirm the presence of the Boraflex at all specified design locations in the spent fuel pool rack array prior to startup following the first refueling outage. The spent fuel storage racks may be used prior to satisfactory completion of the confirmatory tests, provided fuel assemblies are stored only in alternate rows and columns in the racks with center-to-center spacing between fuel assemblies of at least 20.5 inches. No more than one fuel assembly shall be outside an approved shipping container, storage rack or fuel transfer tube in the fuel handling building at any time.

15. Qualification of Personnel (Section 13.1.3, SSER 8)

The licensee shall have on each shift operators who meet the requirements described in Attachment 2. Attachment 2 is hereby incorporated into this license.

16. Coatings Inside of Containment (A-256, SSER 9)

Prior to January 18, 1985, the licensee shall provide for staff review and approval an evaluation of the potential adverse effects of the failure of coatings inside of containment on post accident fluid systems.

17. Operational QA Enhancement Program (SSER 9)

The items listed below shall be completed on the schedule indicated.

- a. Prior to completion of Phase III of the Waterford 3 startup test program, the licensee shall conduct a comprehensive audit of the Operational QA Program, that will include a summary QA document of the Operational QA Program, the definition of responsibilities and interfaces, and guidance on the location of information on QA matters at all levels of concern.
 - b. Prior to completion of Phase III of the Waterford 3 startup test program, the licensee shall supplement its existing QA training program to incorporate specific discussion of QA problems experienced during construction and how this experience applies to operational activities.
 - c. Prior to completion of Phase III of the Waterford 3 startup test program, the licensee shall address each of the recommendations in the Task Force Support Group (TFSG) Limited Scope Audit Report of LP&L Operational Quality Assurance Program, dated December 4, 1984.
 - d. Prior to completion of Phase III of the Waterford 3 startup test program, the licensee shall complete corrective actions related to the 23 NRC issues as identified in the LP&L responses.
- D. The facility requires an exemption from certain requirements of Appendix J to 10 CFR Part 50. This exemption is described in the Office of Nuclear Reactor Regulation's Safety Evaluation Report, Supplement No. 8 (Section 6.2.6). This exemption is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest. This exemption is, therefore, hereby granted pursuant to 10 CFR 50.12. With the granting of this exemption, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

- E. The licensee shall fully implement and maintain in effect all the provisions of the Commission-approved physical security, guard training and qualification and safeguards contingency plans, including amendments made pursuant to the authority of 10 CFR Section 50.54(p). The approved plans, which contain Safeguards Information as described in 10 CFR Section 73.21, are entitled "Physical Security Plan, Waterford Steam Electric Station Unit No. 3", Revision 6, dated July 6, 1981, Revision 7 dated February 23, 1983, Revision 8 dated April 10, 1984 (transmittal letter dated April 11, 1984); "Waterford 3 Steam Electric Station Safeguards Contingency Plan," dated February 1, 1980 as revised July 1, 1980, Revision 2 dated March 14, 1983 and Revision 3, dated January 16, 1984; transmittal letter dated January 12, 1984; "Waterford Steam Electric Station Unit No. 3 Security Training & Qualification Plan" dated February 1, 1980, as revised by pages submitted by letter dated April 23, 1981, Revision 2 dated December 19, 1983, transmittal letter dated December 16, 1983.
- F. The licensee shall report any violations of the requirements contained in Section 2, Items C.(1), C.(3) through C.(15) of this license. Initial notification shall be made within twenty-four (24) hours in accordance with the provisions of 10 CFR 50.72 with written follow-up within 30 days in accordance with the procedures described in 10 CFR 50.73 (b), (c) and (e).
- G. The licensee shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.
- H. This license is effective as the date of issuance and shall expire at midnight on December 18, 2024.

FOR THE NUCLEAR REGULATORY COMMISSION



Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Enclosures:

1. Attachment 1
2. Attachment 2
3. Appendix A (Technical Specifications) (NUREG-0983)
4. Appendix B (Environmental Protection Plan)
5. Appendix C (Antitrust Conditions)

Date of Issuance: **DEC 18 1984**

ATTACHMENT 1

WATERFORD STEAM ELECTRIC STATION
OPERATING LICENSE NPF-26

This attachment identifies items which must be completed to the Commission's satisfaction in accordance with operational modes as identified below.

- A. The following items must be completed prior to proceeding to Operational Mode 2 (initial criticality).
1. The licensee shall submit a final report for the following significant construction deficiencies:
 - SCD-037 Temperature Detectors (RTDs) Failure
 - SCD-080 Unsatisfactory Stroking of EFW Pump Turbine Steam Supply Shut-Off Valves
 - SCD-093 Charging and Letdown Containment Isolation Valve Deficiency
 2. The licensee shall complete loading and testing of the air cleaning systems for the auxiliary and containment buildings. (8211-09)
 3. The licensee will complete rework on masonry wall S-24. (CAT Findings 6.2 and 6.3)
- B. The following items must be completed prior to proceeding to Operational Mode 1 (power operation).
1. The licensee shall evaluate the emergency load testing using maximum and minimum voltages. (8323-04)
 2. The licensee shall develop a suitable method for verifying the postaccident sampling capability or provide representative samples. (8405-02)
 3. The licensee shall provide verification of representative sampling of the particulate and iodine grab sampling portion of the high range effluent monitor for the main ventilation stack. (8405-03)
- C. The following item must be completed prior to startup following the first refueling outage.

Continuous, direct position indication in the control room for the containment isolation valves for instrument line penetrations 53 and 65.

ATTACHMENT 2

Waterford Steam Electric Station
Operating License NPF-26Operating Staff Experience Requirements

LP&L shall have a licensed senior operator on each shift who has had at least six months of hot operating experience on a pressurized water reactor, including at least six weeks at power levels greater than 20% of full power, and who has had startup and shutdown experience. For those shifts where such an individual is not available on the plant staff, an advisor shall be provided who has had at least four years of power plant experience, including two years of nuclear plant experience, and who has had at least one year of experience on shift as a licensed senior operator at a similar type facility. Use of advisors who were licensed only at the RO level will be evaluated on a case-by-case basis. Advisors shall be trained on plant procedures, technical specifications and plant systems, and shall be examined on these topics at a level sufficient to assure familiarity with the plant. For each shift, the remainder of the shift crew shall be trained in the role of the advisors. The training of the advisors and remainder of the shift crew shall be completed at least one week prior to exceeding 5% power. Prior to exceeding 5% power, LP&L shall certify to the NRC the names of the advisors who have been examined and have been determined to be competent to provide advice to the operating shifts. These advisors, or fully trained and qualified replacements, shall be retained until the experience levels identified in the first sentence above have been achieved. The names of any replacement advisors shall be certified by LP&L prior to these individuals being placed on shift. The NRC shall be notified at least 30 days prior to the date LP&L proposes to release the advisors from further service.

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-382

WATERFORD STEAM ELECTRIC STATION, UNIT 3

LOUISIANA POWER & LIGHT COMPANY

NOTICE OF ISSUANCE OF FACILITY OPERATING LICENSE

Notice is hereby given that the U. S. Nuclear Regulatory Commission (the Commission), has issued Facility Operating License No. NPF-26, (the license) to Louisiana Power & Light Company (the licensee). This license authorizes operation of the Waterford Steam Electric Station, Unit 3 (the facility), by the licensee at reactor core power levels not in excess of 3390 megawatts thermal in accordance with the provisions of the license, the technical specifications and the environmental protection plan. However, the license contains a condition limiting operation to five percent of full power (169 megawatts thermal) pending specific Commission approval to operate at greater than five percent power.

Waterford Steam Electric Station, Unit 3 is a pressurized water nuclear reactor located at the licensee's site in St. Charles Parrish, Louisiana, approximately 24 miles west of the City of New Orleans. The license is effective as of the date of issuance and shall expire at midnight on December 18, 2024.

The application for the license, as amended, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. Issuance of this license has been authorized by the Atomic Safety and Licensing Board by its Partial Initial Decisions dated November 3, 1982 and May 26, 1983. The Commission has made appropriate findings as required by the Act and the Commission's regulations in 10 CFR Chapter I,

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which are set forth in the license. Prior public notice of the overall action involving the proposed issuance of an operating license was published in the FEDERAL REGISTER on January 2, 1979 (44 F.R. 125).

The Commission has determined that the issuance of this license will not result in any environmental impacts other than those evaluated in the Final Environmental Statement since the activity authorized by the license is encompassed by the overall action evaluated in the Final Environmental Statement.

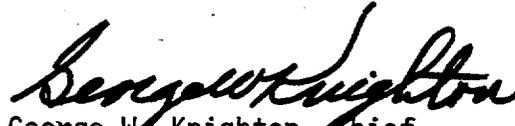
For further details with respect to this action, see (1) Facility Operating License No. NPF-26, with technical specifications (NUREG-0973) and environmental protection plan; (2) the reports of the Advisory Committee on Reactor Safeguards dated August 11, 1981, and March 9, 1982; (3) the Commission's Safety Evaluation Report (NUREG-0787) dated July, 1981; Supplement No. 1 dated October 1981; Supplement No. 2 dated January 1982; Supplement No. 3 dated April 1982; Supplement No. 4 dated October 1982; Supplement No. 5 dated June 1983; Supplement No. 6 dated June 1984; Supplement No. 7 dated September 1984, Supplement No. 8 dated December 1984; The Final Safety Analysis Report and amendments thereto; (5) the Environmental Report and amendments thereto; (6) the Final Environmental Statement dated September 1981; and (7) the Partial Initial Decisions issued by the Atomic Safety and Licensing Board dated November 3, 1982 and May 26, 1983.

These items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C., and the University of New Orleans Library, Louisiana Collection, Lakefront, New Orleans, Louisiana. A copy of Facility Operating License No. NPF-26 may be obtained upon request

addressed to the U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Licensing. Copies of the Safety Evaluation Report and its Supplements 1 through 9 (NUREG-0787) and the Technical Specifications (NUREG-0973) may be purchased by calling 301-492-9530 or by writing to the Publication Services Section, Division of Technical Information and Document Control, U. S. Nuclear Regulatory Commission, Washington, D. C. 20555 or may be purchased from the National Technical Information Service, Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161.

Dated at Bethesda, Maryland, the *18th* day of *December*, 1984.

FOR THE NUCLEAR REGULATORY COMMISSION


George W. Knighton, Chief
Licensing Branch No. 3
Division of Licensing



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

Docket No. 50-382

AMENDMENT TO INDEMNITY AGREEMENT NO. B-92
AMENDMENT NO. 2

Effective **DEC 18 1984**, Indemnity Agreement No. B-92, between Louisiana Power and Light Company and the U.S. Nuclear Regulatory Commission, dated February 9, 1983, as amended, is hereby further amended as follows:

Item 2a. of the Attachment to the indemnity agreement is deleted in its entirety and the following substituted therefor:

Item 2 - Amount of financial protection

a. \$1,000,000 (From 12:01 a.m., February 9, 1983 to 12 midnight, **DEC 17 1984** inclusive)

\$160,000,000* (From 12:01 a.m., **DEC 18 1984**)

Item 3 of the Attachment to the indemnity agreement is deleted in its entirety and the following substituted therefor:

Item 3 - License number or numbers

SNM-1913 (From 12:01 a.m., February 9, 1983 to 12 midnight, **DEC 17 1984** inclusive)

NPF-26 (From 12:01 a.m., **DEC 18 1984**)

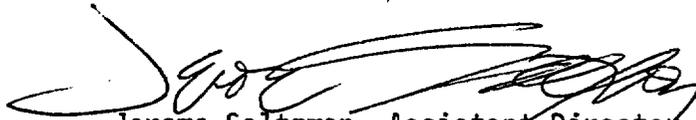
Item 5 of the Attachment to the indemnity agreement is amended by adding the following:

* and, as of August 1, 1977, the amount available as secondary financial protection.

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Nuclear Energy Liability Policy (Facility Form) No. MF-117 issued by
Mutual Atomic Energy Liability Underwriters.

FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION



Jerome Saltzman, Assistant Director
State and Licensee Relations
Office of State Programs

Accepted _____, 1984

By _____
LOUISIANA POWER AND LIGHT COMPANY

Enclosure 4

ASSESSMENT OF THE EFFECT OF LICENSE DURATION ON MATTERS DISCUSSED
IN THE FINAL ENVIRONMENTAL STATEMENT FOR THE WATERFORD STEAM
ELECTRIC STATION, UNIT 3

INTRODUCTION

The Final Environmental Statement (FES) for the operation of the Waterford Steam Electric Station, Unit 3 was published in September 1981. As that time it was staff practice to issue operating licenses for a period of 40 years from the date of the construction permit. This would represent approximately 30 years of operating life.

By letter dated March 18, 1983, the applicant requested that the operating license (OL) for Waterford Steam Electric Station, Unit 3, when issued, have a duration of 40 years from the date of OL issuance. The assessment contained herein is made for those issues affected by a 40-year license duration.

DISCUSSION

The staff has reviewed the Waterford 3 FES to determine which aspects considered in the FES are affected by the duration of the operating license. In general, the FES assesses various impacts associated with operation of the facility in terms of annual impacts and balances these against the anticipated annual energy production benefits. Thus, the overall assessment and conclusions would not be dependent on specific operating life. There are, however, a few areas in which a specific operating life of 30 years was assumed. These are as follows:

1. Radiological assessments are based on a 15-year plant midlife.
2. Uranium fuel cycle impacts are based on one initial core load and 29 annual refuelings.
3. Community characteristics. The evaluation and findings in the FES are applicable to 40 years of operation; therefore, no further appraisal is necessary in this area.
4. Probabilistic assessment of severe accidents. The evaluation and findings in the FES are applicable to 40 years of operation, therefore, no further appraisal is necessary in this area.
5. Economic considerations. The evaluation and findings in the FES are applicable to 40 years of operation. Annual costs and savings would merely be extended. One-time costs would be spread over more years and would be less on an annual basis. Therefore, no further appraisal is necessary in this area.

EVALUATION

The staff's appraisal of the significance of the use of 40 years of operation rather than 30 as it affects the two areas above which were not covered by the evaluations and findings in the original FES (i.e., items 1 and 2) is presented in the following discussion:

1. Radiological Assessment of Normal Operations

The NRC staff has calculated dose commitments to the human population residing around nuclear power reactors to assess the impact on people from radioactive material released from these reactors. The annual dose commitment is that dose that results from a one year intake of radioactive materials and would be received over a period of 50 years following intake. However, for the majority of radionuclides considered in this analysis, the total dose from a one year intake occurs during the year of intake.

To perform the dose assessment, the staff assumes environmental conditions that would exist at the midpoint of plant life. This assumption accounts for the effect of the buildup of deposited radionuclides in the soil in succeeding years of operations.

Because it was staff practice to issue operating licenses for a period of 40 years from the date of CP issuance, allowing ten years for completion of construction would result in an effective operating life of 30 years. Thus, the 15 period was chosen for radiological environmental assessment purposes as the midpoint of plant operation and was used for the calculations in the Waterford 3 Final Environmental Statement (FES). For a 40 year license the 20 year period should be chosen for the assessment.

The staff has evaluated LP&L's request for a 40 year license and finds that increasing the buildup period from 15 to 20 years will increase the annual dose commitment by less than 10%. This increase is due primarily to ingestion of the longer-lived radionuclides deposited in the environment. Table J-4 of the FES indicates that the dose commitment to bone, the most critical organ, via the ingestion pathway is about 12 mrem for each year of plant operation. The 10 CFR Part 50, Appendix I design objectives is 15 mrem maximum. Thus an increase of as much as 10% in the most critical pathway (to about 13 mrem) remains below the regulatory guidelines.

2. Uranium Fuel Cycle Impacts

The impacts of the uranium fuel cycle are based on 30 years of operation of a model LWR. The fuel requirements for the model LWR were assumed to be one initial core load and 29 annual refuelings of approximately 1/3 core change for each refueling for an equivalent of 10.7 full core loads over 30 years (slightly more than 0.35 core per year average). Thus, the average annual fuel requirement for a 40 year license is slightly lower than compared to the annual fuel requirement for a 30 year license.

The net result would be a small reduction in the annual fuel requirement for the model LWR. This small reduction would not lead to changes in the impacts of the uranium fuel cycle. The staff, therefore, judges that there would not be any changes to the Waterford Unit 3 FES Table 5.13 (S-3) that would be necessary to consider 40 years of operation. If anything, the values in Table 5.13 become more conservative when a 40-year period of operation is considered.

CONCLUSION

The staff reviewed the Waterford 3 FES and determined that only a few of the areas related to its NEPA analysis discussed in the FES were tied directly to a 30-year operating period. We have concluded, based on the reasons discussed in the sections above, that the impacts associated with a 40-year license duration are not significantly different from those associated with a 30-year license duration and are not significantly different from those assessed in the Waterford 3 FES.



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

UNITED STATES NUCLEAR REGULATORY COMMISSION

LOUISIANA POWER AND LIGHT COMPANY

DOCKET NO. 50-382

NOTICE OF ENVIRONMENTAL ASSESSMENT AND FINDING OF

NO SIGNIFICANT IMPACT

The U. S. Nuclear Regulatory Commission (the Commission) is considering issuance of an exemption from the requirements of 10 CFR 70.24 to Louisiana Power and Light Company (the applicant). The applicant has applied for a facility operating license for operation of the Waterford Steam Electric Station, Unit No. 3 (the facility). This facility is a pressurized water reactor located in St. Charles Parish, Louisiana.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action: The exemption from 10 CFR 70.24 would allow irradiated or unirradiated fuel assemblies to be handled and stored in the Waterford 3 fuel handling building without having two criticality monitoring systems operable, provided that no more than one fuel assembly is outside an approved shipping container, storage rack, or fuel transfer tube at any time.

The Need for the Proposed Action: The proposed exemption is needed to permit fueling and refueling operations at Waterford 3 to be conducted without installing the criticality detection systems specified by 10 CFR 70.24.

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Environmental Impacts of the Proposed Action: There are no environmental impacts of the proposed action. Criticality will be precluded by the use of geometric spacing in storing new and spent fuel storage racks and the restriction that no more than one fuel assembly shall be authorized to be outside an approved shipping container, storage rack or the fuel transfer tube at any one time. This is an acceptable alternative to redundant criticality detection systems. Since the proposed change does not otherwise affect radiological plant effluents nor cause any significant occupational exposures, the Commission concludes that there are no significant radiological environmental impacts associated with this proposed exemption.

With regard to potential non-radiological impacts, the proposed exemption involves systems located entirely within the restricted area as defined in 10 CFR Part 20. It does not affect non-radiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant non-radiological environmental impacts associated with the proposed exemption.

Alternative to the Proposed Action: We have concluded that there is no measurable environmental impact associated with the proposed exemption. The principal alternative would be to deny the requested exemption. This would not reduce environmental impacts of the plant operation.

Alternative Use of Resources: This action does not involve the use of resources not previously considered in connection with the "Final Environmental Statement Related to the operation of Waterford Steam Electric Station, Unit No. 3" dated September 1981.

Agencies and Persons Consulted: The NRC staff reviewed the applicant's request and did not consult other agencies or persons.

FINDINGS OF NO SIGNIFICANT IMPACT

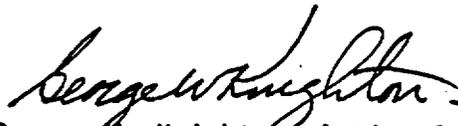
The Commission has determined not to prepare an environmental impact statement for the proposed exemption.

Based upon the foregoing environmental assessment, we conclude that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see the Safety Evaluation Report of the staff's review of the applicant's application, as amended, for a Materials License, dated February 9, 1983, which is available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C. and at the University of New Orleans Library, Louisiana Collection, Lakefront, New Orleans, Louisiana 70122.

Dated at Bethesda, Maryland this 12th day of December, 1984.

FOR THE NUCLEAR REGULATORY COMMISSION



George W. Knighton, Acting Assistant Director
for Licensing
Division of Licensing



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

UNITED STATES NUCLEAR REGULATORY COMMISSION

LOUISIANA POWER AND LIGHT COMPANY

DOCKET NO. 50-382

NOTICE OF ENVIRONMENTAL ASSESSMENT AND FINDING OF

NO SIGNIFICANT IMPACT

The U. S. Nuclear Regulatory Commission (the Commission) is considering issuance of an exemption from Paragraph III.D.2(b)(ii) of 10 CFR 50, Appendix J to Louisiana Power and Light Company (the applicant). The applicant has applied for a facility operating license for operation of the Waterford Steam Electric Station, Unit No. 3 (the facility). This facility is a pressurized water reactor located in St. Charles Parish, Louisiana.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action: The applicant proposes to perform a full pressure air lock test after cold shutdown only when maintenance is performed on the air lock which could affect the air lock sealing capability.

The Need for the Proposed Action: The applicant proposes to substitute the seal leakage test of Paragraph II.D.2(b)(ii) of Appendix J for the full pressure test after cold shutdown. Without the proposed action, either a cumbersome test method must be used or a major design change would be required in order to perform the full pressure air lock test.

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Environmental Impacts of the Proposed Action: There are no environmental impacts of the proposed action. Whenever the plant is in cold shutdown (Mode 5) or refueling (Mode 6), containment integrity is not required. However, if an air lock is opened during Modes 5 and 6, paragraph III.D.2(b)(ii) of Appendix J requires that an overall air lock leakage test at not less than P_a be conducted prior to plant heatup and startup (i.e., entering Mode 4). The existing air lock doors are so designed that a full pressure, i.e., P_a (44.0 psig), test of an entire air lock can only be performed after strong backs (structural bracing) have been installed on the inner door. Strong backs are needed since the pressure exerted on the inner door during the test is in a direction opposite to that of the accident pressure direction. Installing strong backs, performing the test, and removing strong backs, requires at least 6 hours per air lock, during which access through the air lock is prohibited. Since the proposed change does not otherwise affect radiological plant effluents nor cause any significant occupational exposures, the Commission concludes that there are no significant radiological environmental impacts associated with this proposed exemption.

If the period 6-month test of paragraph III.D.2(b)(i) of Appendix J and the test required by paragraph III.D.2(b)(iii) of Appendix J are current, no maintenance has been performed on the air lock, and the air lock is properly sealed, there is no reason to expect the air lock to leak excessively, even through it has been opened in Mode 5 or Mode 6.

Accordingly, the staff concludes that the applicant's proposed approach of substituting the seal leakage test of paragraph III.D.2(b)(iii) of the full pressure test of paragraph III.D.2(b)(ii) of Appendix J is acceptable when no maintenance has been performed on an air lock. Whenever maintenance has been performed on the air lock, the requirements of paragraph III.D.2(b)(ii) of Appendix J must still be met by the applicant.

With regard to potential non-radiological impacts, the proposed exemption involves systems located entirely within the restricted area as defined in 10 CFR Part 20. It does not affect non-radiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant non-radiological environmental impacts associated with the proposed exemption.

Alternative to the Proposed Action: We have concluded that there is no measurable environmental impact associated with the proposed exemption. The principal alternative would be to deny the requested exemption. This would not reduce environmental impacts of the plant operation.

Alternative Use of Resources: This action does not involve the use of resources not previously considered in connection with the "Final Environmental Statement Related to the operation of Waterford Steam Electric Station, Unit No. 3" dated September 1981.

Agencies and Persons Consulted: The NRC staff reviewed the applicant's request and did not consult other agencies or persons.

FINDINGS OF NO SIGNIFICANT IMPACT

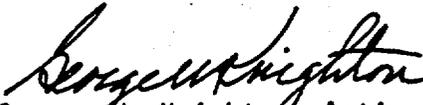
The Commission has determined not to prepare an environmental impact statement for the proposed exemption.

Based upon the foregoing environmental assessment, we conclude that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see the Safety Evaluation Report of the staff's review of the applicant's application, as amended, for a Materials License, dated February 9, 1983, which is available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C. and at the University of New Orleans Library, Louisiana Collection, Lakefront, New Orleans, Louisiana 70122.

Dated at Bethesda, Maryland this 12th day of December, 1984.

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George W. Knighton, Acting Assistant Director
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