

February 2, 1987

Docket No. 50-461

Mr. Frank A. Spangenberg
Manager-Licensing and Safety
Clinton Power Station
P. O. Box 678
Mail Code V920
Clinton, Illinois 61727

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Dear Mr. Spangenberg:

SUBJECT: DRAFT FULL POWER LICENSE

Re: Clinton Power Station, Unit No. 1

The staff is preparing a full power license (NPF-62) for the Clinton Power Station. Enclosed is a draft copy of this license but without attachments and appendices. It is provided for your review and comment to ensure that it accurately reflects the commitments required of you as described in the FSAR, SER and other documents. We request that you review this draft full power license and provide any comments in writing within 5 working days of receipt of this document.

If you have any questions regarding this draft full power license, contact the staff's Project Manager for your application, Byron Siegel, at (301) 492-9474.

Sincerely,

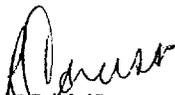

Walker R. Butler, Director
BWR Project Directorate No. 4
Division of BWR Licensing

Enclosure:
As stated

cc w/enclosure:
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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Manager-Licensing and Safety
Clinton Power Station
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Walter R. Butler, Director
BWR Project Directorate No. 4
Division of BWR Licensing

Enclosure:
As stated

cc w/enclosure:
See next page

Mr. Frank A. Spangenberg
Illinois Power Company

Clinton Power Station
Unit 1

cc:

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Clinton, Illinois 61727

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Springfield, Illinois 62704



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

ILLINOIS POWER COMPANY
SOYLAND POWER COOPERATIVE, INC.
WESTERN ILLINOIS POWER COOPERATIVE, INC.
DOCKET NO. 50-461
CLINTON POWER STATION, UNIT NO. 1
FACILITY OPERATING LICENSE

License No. NPF-62

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for license filed by Illinois Power Company* (IP), acting on behalf of itself and as agent for Soyland Power Cooperative, Inc. and Western Illinois Power Cooperative, Inc. (licensees) 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 Clinton Power Station, Unit No. 1 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-137 and the application, as amended, the provisions of the Act and the 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 Section 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 Section 2.D. below);
 - E. Illinois Power 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 licensees have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;

*Illinois Power Company is authorized to act as agent for Soyland Power Cooperative, Inc. and Western Illinois Power Cooperative, Inc. and has exclusive responsibility and control over the physical construction, operation and maintenance of the facility.

- 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 considering available alternatives, the issuance of Facility Operating License No. NPF-62, 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.
2. Based on the foregoing findings regarding this facility, and pursuant to approval by the Nuclear Regulatory Commission at a meeting on Facility Operating License No. NPF-62, which supersedes the license for fuel loading and low power testing, License No. NPF-55, issued on September 29, 1986, is hereby issued to Illinois Power Company, Soyland Power Cooperative, Inc. and Western Illinois Power Cooperative, Inc. (the licensees), to read as follows:
- A. This license applies to the Clinton Power Station, Unit No. 1, a boiling water nuclear reactor and associated equipment (the facility), owned by Illinois Power Company, Soyland Power Cooperative, Inc. and Western Illinois Power Cooperative, Inc. The facility is located in Harp Township, DeWitt County, approximately six miles east of the city of Clinton in east-central Illinois and is described in the licensees' Final Safety Analysis Report, as supplemented and amended, and in the licensees' Environmental Report-Operating License Stage, as supplemented and amended.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:
 - (1) Illinois Power Company (IP), pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, use and operate the facility at the designated location in Harp Township, DeWitt County, Illinois, in accordance with the procedures and limitations set forth in this license;
 - (2) Soyland Power Cooperative, Inc. and Western Illinois Power Cooperative, Inc., pursuant to Section 103 of the Act and 10 CFR Part 50, to possess the facility at the above designated location in accordance with the procedures and limitations set forth in this license;
 - (3) IP, pursuant to the Act and 10 CFR Part 70, to receive, possess and to 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;

- (4) IP, 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;
 - (5) IP, 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
 - (6) IP, 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.
- 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

IP is authorized to operate the facility at reactor core power levels not in excess of 2894 megawatts thermal (100 percent rated power) in accordance with the conditions specified herein. The items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license.
 - (2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. IP shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.
 - (3) Antitrust Conditions

IP shall comply with the antitrust conditions in Appendix C attached hereto, which is hereby incorporated into this license.

(4) Control System Failures (Section 7.7.3.1, SER and SSER 6)*

IP shall submit, in accordance with commitments contained in letters dated May 15, 1986 and July 16, 1986, the results of the additional evaluations of control system failures and the proposed implementation of any corrective actions that may be found necessary, for staff review four months prior to plant startup after the first refueling outage. Implementation of any corrective actions found acceptable by the staff shall be completed prior to plant startup after the first refueling outage.

(5) New Fuel Storage (Section 9.1.1, SER, SSER 6 and SSER 7)

IP shall store new fuel assemblies in accordance with the requirements specified in Attachment 2. Attachment 2 is hereby incorporated into this license.

(6) Plant Operation Experience (Section 13.1.2.1, SSER 5)

IP shall have a licensed senior operator on each shift who has had at least 6 months of hot operating experience on a same type plant, including at least 6 weeks at power levels greater than 20 percent of full power, and who has had BWR startup and shut-down experience. This license condition shall be effective for a period of 1 year from fuel load or until the attainment of a nominal 100 percent power level, whichever occurs later.

(7) Emergency Planning (Section 13.3, SSER 6)

In the event the NRC staff 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.

(8) Post-Fuel Loading Initial Test Program (Section 14, SER, SSER 5 and SSER 6)

Any changes to the initial test program described in Section 14 of the FSAR made in accordance with the provisions of 10 CFR 50.59 shall be reported in accordance with 50.59(b) within one month of such change.

(9) Emergency Response Capabilities (Generic Letter 82-33, Supplement 1 to NUREG-0737, Section 7.5.3.1, SSER 5, Section 7.5.3.2, SSER 6 and Section 18, SER and SSER 5)

- a. IP shall install and have operational separate Class 1E power sources on the fuel zone level channels and inform the staff that the fuel zone level instrument item has been environmentally qualified in accordance with the requirements of 10 CFR 50.49 prior to startup following the first refueling outage.
- b. IP shall submit a detailed control room design supplemental summary report by March 29, 1987 that addresses all the items identified in Section 18.3 of Supplement 5 to the SER.

(10) Partial Feedwater Heating (Section 15.1, SER, SSER 5, and SSER 7)

The facility shall not be operated with reduced feedwater temperature for the purpose of extending the normal fuel cycle. After the first operating cycle, the facility shall not be operated with a feedwater heating capacity which would result in a rated thermal power feedwater temperature less than 420°F unless analyses supporting such operation are submitted by the licensee and approved by the staff.

- D. The facility requires exemptions from certain requirements of 10 CFR Part 50 and 10 CFR Part 70. An exemption from the criticality alarm requirements of 10 CFR 70.24 was granted in an Amendment to the Special Nuclear Material License No. SNM-1886 dated November 27, 1985. This exemption is described in Section 9.1.1 of Supplement No. 6 to the SER. This previously granted exemption is continued in this operating license. The facility requires an exemption from the requirements of Appendix A to 10 CFR Part 50, General Design Criterion 61 described in Supplement 8 to the SER. This is an extension of a schedular exemption previously granted in the low power license. This schedular exemption would permit deferral of completion of preoperational testing of a portion of the Fuel Handling System until prior to off-loading fuel from the reactor vessel (Section 14, SSER 8). Two exemptions from the requirements of Appendix J to 10 CFR Part 50, described in Supplement No. 6 to the SER, are also required. These previously granted exemptions are continued in this operating license. These are: a) An exemption from the requirement of Paragraph III.D.2 (b)(ii) of Appendix J, substituting the seal leakage test at Pa of

paragraph III.D.2(b)(iii) for the entire airlock test at Pa of paragraph III.D.2(b)(ii) of Appendix J when no maintenance has been performed in the airlock that could affect its sealing capability (Section 6.2.6 of SSER 6); and (b) An exemption from the requirement of Paragraph III.C.3 of Appendix J, exempting the measured leakage rates from the main steam isolation valves from inclusion in the combined leak rate for the local leak rate tests (Section 6.2.6 of SSER 6). These exemptions are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. These exemptions are hereby granted. The special circumstances regarding each exemption are identified in the referenced section of the safety evaluation report and the supplements thereto. These exemptions are granted pursuant to 10 CFR 50.12. With these exemptions, 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. IP shall fully implement and maintain in effect all provisions of the physical security, guard training and qualifications, and safeguards contingency plans previously approved by the Commission and all amendments and revisions to such plans made pursuant to the authority under 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain safeguards information protected under 10 CFR 73.21, are entitled: "Clinton Power Station Physical Security Plan," with revisions submitted through January 17, 1986, "Clinton Power Station Guard Qualification and Training Plan," with revisions submitted through September 19, 1985; and "Clinton Power Station Safeguards Contingency Plan," with revisions submitted through September 20, 1985.
- F. IP shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report as amended, for the Clinton Power Station, Unit No. 1, and as approved in the Safety Evaluation Report (NUREG-0853) dated February 1982 and Supplement Nos. 1 thru 8 thereto subject to the following provision:
 - IP may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.
- G. Except as otherwise provided in the Technical Specifications or Environmental Protection Plan, IP shall report any violations of the requirements contained in Section 2.C of this license in the following manner: initial notification shall be made within 24 hours to the NRC Operations Center via the Emergency Notification System with written followup within thirty days in accordance with the procedures described in 10 CFR 50.73 (b), (c), and (e).

- H. The licensees 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.
- I. This license is effective as of the date of issuance and shall expire at midnight on September 29, 2026.

FOR THE NUCLEAR REGULATORY COMMISSION

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Attachments 1 and 2
- 2. Appendix A - Technical Specifications (NUREG-1235)
- 3. Appendix B - Environmental Protection Plan
- 4. Appendix C - Antitrust Conditions

Date of Issuance: