

May 13, 1993

Docket No. 50-461

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

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Dear Mr. Spangenberg:

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. M85814)

The U. S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 74 to Facility Operating License No. NPF-62 for the Clinton Power Station, Unit No. 1. The amendment is in response to your application dated February 11, 1993 (U-602093).

The amendment revises Clinton Power Station Technical Specification 3/4.3.4.2, "End-Of-Cycle Recirculation Pump Trip System Instrumentation," to change the frequency for measuring the breaker arc suppression time from once every 18 months to once every 60 months.

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

Original Signed By:

Douglas V. Pickett, Project Manager
Project Directorate III-2
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 74 to NPF-62
2. Safety Evaluation

cc w/enclosures:
see next page

LA: PD32:DRPW
CMoore
4/8/93

PM: PD32:DRPW
DPickett/rc
4/20/93

D: PD32:DRPW
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CSS # 93-56

DOCUMENT NAME: CL85814.AMD

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DOCUMENT NAME: CL85814.AMD

Mr. Frank A. Spangenberg
Illinois Power Company

Clinton Power Station
Unit No. 1

cc:

Mr. J. S. Perry
Vice President
Clinton Power Station
Post Office Box 678
Clinton, Illinois 61727

Illinois Department
of Nuclear Safety
Office of Nuclear Facility Safety
1035 Outer Park Drive
Springfield, Illinois 62704

Mr. J. A. Miller
Manager Nuclear Station
Engineering Department
Clinton Power Station
Post Office Box 678
Clinton, Illinois 61727

Mr. Donald Schopfer
Project Manager
Sargent & Lundy Engineers
55 East Monroe Street
Chicago, Illinois 60603

Sheldon Zabel, Esquire
Schiff, Hardin & Waite
7200 Sears Tower
233 Wacker Drive
Chicago, Illinois 60606

Resident Inspector
U.S. Nuclear Regulatory Commission
RR#3, Box 229 A
Clinton, Illinois 61727

Ms. K. K. Berry
Licensing Services Manager
General Electric Company
175 Curtner Avenue, M/C 382
San Jose, California 95125

Regional Administrator, Region III
799 Roosevelt Road, Building 4
Glen Ellyn, Illinois 60137

Chairman of DeWitt County
c/o County Clerk's Office
DeWitt County Courthouse
Clinton, Illinois 61727

Mr. Robert Neumann
Office of Public Counsel
State of Illinois Center
100 W. Randolph, Suite 11-300
Chicago, Illinois 60601



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

ILLINOIS POWER COMPANY, ET AL.

DOCKET NO. 50-461

CLINTON POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 74
License No. NPF-62

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Illinois Power Company* (IP), and Soyland Power Cooperative, Inc. (the licensees) dated February 11, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment 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;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-62 is hereby amended to read as follows:

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

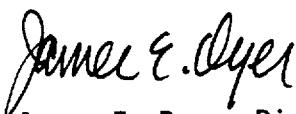
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(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 74 , are hereby incorporated into this license. Illinois Power Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



James E. Dyer, Director
Project Directorate III-2
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 13, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 74

FACILITY OPERATING LICENSE NO. NPF-62

DOCKET NO. 50-461

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised page is identified by amendment number and contains a vertical line indicating the area of change. The corresponding overleaf page, as indicated by an asterisk, is provided to maintain document completeness.

Remove Pages

3/4 3-53
*3/4 3-54

Insert Pages

3/4 3-53
*3/4 3-54

INSTRUMENTATION

END-OF-CYCLE RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION

SURVEILLANCE REQUIREMENTS (Continued)

4.3.4.2.3 The END-OF-CYCLE RECIRCULATION PUMP TRIP SYSTEM RESPONSE TIME of each trip function shown in Table 3.3.4.2-3 shall be demonstrated to be within its limit at least once per 18 months. Each test shall include at least the logic of one type of channel input, turbine control valve fast closure or turbine stop valve closure, such that both types of channel inputs are tested at least once per 36 months. The measured time shall be added to the most recent breaker arc suppression time and the resulting END-OF-CYCLE RECIRCULATION PUMP TRIP SYSTEM RESPONSE TIME shall be verified to be within its limits.

4.3.4.2.4 The time interval necessary for breaker arc suppression from energization of the recirculation pump circuit breaker trip coil shall be measured at least once per 60 months.

TABLE 3.3.4.2-1

END-OF-CYCLE RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP FUNCTION (a)</u>
1. Turbine Stop Valve - Closure	4(b)
2. Turbine Control Valve-Fast Closure	4(b)

(a) A channel may be placed in an inoperable status for up to 6 hours for required surveillance provided at least two OPERABLE channels are monitoring that parameter.

(b) This function shall be automatically bypassed when turbine first stage pressure is less than the value of turbine first stage pressure corresponding to 40% of RATED THERMAL POWER.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 74 TO FACILITY OPERATING LICENSE NO. NPF-62

ILLINOIS POWER COMPANY, ET AL.

CLINTON POWER STATION, UNIT NO. 1

DOCKET NO. 50-461

1.0 INTRODUCTION

By letter dated February 11, 1993, Illinois Power Company, et al. (IP, the licensee) proposed to amend Facility Operating License No. NPF-62. The amendment would revise the Clinton Power Station Technical Specification (TS) 3/4.3.4.2, "End-Of-Cycle Recirculation Pump Trip System Instrumentation." The End-Of-Cycle Recirculation Pump Trip (EOC-RPT) shifts the recirculation pumps from fast to slow speed upon signals from the Reactor Protection System logic. This shift is provided to insert negative reactivity by using voids in the event of a turbine stop valve closure (turbine trip) or control valve fast closure (generator load reject) scram. The need for the additional negative reactivity in excess of that normally inserted on a scram is because of end-of-cycle reactivity considerations. Flux shapes at the end-of-cycle are such that the control rods may not be able to ensure that thermal limits are maintained by inserting sufficient reactivity during the first few feet of rod travel upon a scram caused by turbine control valve fast closure or turbine stop valve closure. The EOC-RPT function ensures sufficient negative reactivity is inserted by another means. While the EOC-RPT is only needed near the end of the fuel operating cycle, the function is available for the entire fuel operating cycle.

The EOC-RPT system response time is defined as the time from initial movement of the associated turbine stop valves or turbine control valves to complete suppression of the electric arc between the fully open contacts of the recirculation pump circuit breakers. The increments that make up the system response time include: the time from initial valve movement to reaching the trip setpoint; the response time of the sensor; the response time of the system logic; and the time allotted for breaker arc suppression. The EOC-RPT system response time used in the accident analyses (i.e., 140 ms) is verified through periodic surveillances.

Clinton Power Station Technical Specification Surveillance Requirement 4.3.4.2.3 requires that the EOC-RPT system response time test be performed at least once every 18 months. By letter dated February 11, 1993, the licensee requested that the surveillance interval for measuring the breaker arc suppression time be increased from 18 months to 60 months.

2.0 EVALUATION

The current technical specifications require measuring the EOC-RPT system response time at least once every 18 months. While the licensee's proposal will still include verification of the overall system response time every 18 months, verification of the breaker arc suppression time (i.e., the time interval necessary for breaker arc suppression from energization of the recirculation pump circuit breaker trip coil) will only be performed every 60 months. The licensee proposes to measure the EOC-RPT system response time every 18 months and add it to the most recent breaker arc suppression time. The resulting response time will be verified to be within acceptable limits.

Part of the licensee's justification for this proposed change is based on the demonstrated reliability of the circuit breakers. Operational experience at the Clinton Power Station has demonstrated that the reactor recirculation pump breakers and their arc suppression function are reliable. The breakers are not routinely cycled and the short breaker arc suppression time does not appreciably change. In addition, the licensee's practice of maintaining the circuit breakers as recommended by the manufacturer should further ensure reliability.

The licensee's justification is also based on the potential impact to plant equipment and outage schedules. Measurement of the breaker arc suppression time requires the installation of special jumpers and instrumentation. Accommodating the breaker arc suppression measurement may require additional cycling of the reactor recirculation pumps and pump breakers; thus, increasing wear on these components, including the reactor recirculation pump seals (thereby increasing the potential for seal leakage). In addition, measurement of the EOC-RPT system response time at full power is not desirable resulting in testing being performed during plant outages.

The staff has previously considered the benefits of verifying the individual time increments of the EOC-RPT system response time. The staff agrees with the licensee that measuring the breaker arc suppression during every refueling outage is not necessary. Surveillance requirements found in the improved Standard Technical Specifications for the BWR/6 reactors, identify a 60 month interval for measuring the breaker arc suppression time. Thus, the proposed change will bring the Clinton Power Station Technical Specifications into agreement with the staff's improved Standard Technical Specifications.

Therefore, based on our review, the staff finds the licensee's proposal acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Illinois State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

This amendment changes a surveillance requirement. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding (58 FR 16862). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Douglas V. Pickett

Date: May 13, 1993