March 29, 1993

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

DISTRIBUTION:
Docket File
NRC & Local PDRs
PDIII-2 p/f
J. Roe
J. Zwolinski
J. Dyer
C. Moore
D. Pickett
D. Hagan
G. Hill (2)
W. Jones
C. Grimes
ACRS (10)
OPA
OC/LFDCB
B. Clayton RIII
OGC

Dear Mr. Spangenberg:

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. M85234)

The U. S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment No. 70 to Facility Operating License No. NPF-62 for the Clinton Power Station, Unit No. 1. The amendment is in response to your application dated December 15, 1992 (U-602074).

The amendment adds a requirement to Technical Specification (TS) 3/4.4.4, "Chemistry," to perform an engineering evaluation prior to plant restart of the impact on the reactor coolant system of chemistry parameters exceeding their limit for specified time periods during plant shutdown conditions.

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. 70 to NPF-62
2. Safety Evaluation

cc w/enclosures:
see next page

OFC	LA:PDIII-2	PM:PDIII-2	D:PDIII-2	OGC	BC:EMCB
NAME	CMOORE	DPICKETT	JDYER	EHOLLER	JSTROSNIDER
DATE	12/21/93	12/24/93	3/29/93	3/2/93	2/26/93

cc:

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

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

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

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

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

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

ILLINOIS POWER COMPANY

SOYLAND POWER COOPERATIVE, INC.

DOCKET NO. 50-461

CLINTON POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 70
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 December 15, 1992, 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.

(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. 70 , 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

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: March 29, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 70

FACILITY OPERATING LICENSE NO. NPF-62

DOCKET NO. 50-461

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

Remove Pages	Insert Pages
*3/4 4-15	*3/4 4-15
3/4 4-16	3/4 4-16

TABLE 3.4.3.2-1

REACTOR COOLANT SYSTEM PRESSURE ISOLATION VALVES

VALVE NUMBER	SYSTEM
1E12F041A	LPCI from RHRA Testable Chk
1E12F041B	LPCI from RHRB Testable Chk
1E12F041C	LPCI from RHRC Testable Chk
1E12F042A	LPCI from RHRA Shutoff
1E12F042B	LPCI from RHRB Shutoff
1E12F042C	LPCI from RHRC Shutoff
1E12F023	RHR B Supp to Rx Head Spray
1E21F005	LPCS Inj Isol
1E21F006	LPCS Inj Testable Chk
1E22F004	HPCS Inj Isol
1E22F005	HPCS Testable Chk
1E51F066	RCIC Pmp Disch to Rx Testable Check
1E51F013	RCIC Pmp Disch to Rx Otbd Isol
1E12F008	RHR Shutdown Cooling Supply
1E12F009	RHR Shutdown Cooling Supply
1E12F053A	RHR Shutdown Cooling Return
1E12F053B	RHR Shutdown Cooling Return
1E12F050A	RHR Shutdown Cooling Return
1E12F050B	RHR Shutdown Cooling Return

3/4.4.4 CHEMISTRY

LIMITING CONDITION FOR OPERATION

3.4.4 The chemistry of the reactor coolant system shall be maintained within the limits specified in Table 3.4.4-1.

APPLICABILITY: At all times.

ACTION:

a. In OPERATIONAL CONDITION 1:

1. With the conductivity, chloride concentration, or pH exceeding the limit specified in Table 3.4.4-1 for less than 72 hours during one continuous time interval and, for conductivity and chloride concentration, for less than 336 hours per year, but with the conductivity less than 10 μmho/cm at 25°C and with the chloride concentration less than 0.5 ppm, this need not be reported to the Commission and the provisions of Specification 3.0.4 are not applicable.

2. With the conductivity, chloride concentration, or pH exceeding the limit specified in Table 3.4.4-1 for more than 72 hours during one continuous time interval or with the conductivity and chloride concentration exceeding the limit specified in Table 3.4.4-1, for more than 336 hours per year, be in at least STARTUP within the next 6 hours.

3. With the conductivity exceeding 10 μmho/cm at 25°C or chloride concentration exceeding 0.5 ppm, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

b. In OPERATIONAL CONDITIONS 2 and 3 with the conductivity, chloride concentration or pH exceeding the limit specified in Table 3.4.4-1 for more than 48 hours during one continuous time interval, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

c. At all other times:

1. With the:

a. Conductivity or pH exceeding the limit specified in Table 3.4.4-1, restore the conductivity and pH to within the limit within 72 hours, or

b. Chloride concentration exceeding the limit specified in Table 3.4.4-1 restore the chloride concentration to within the limit within 24 hours, or

perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the reactor coolant system. Determine that the structural integrity of the reactor coolant system remains acceptable for continued operation prior to proceeding to OPERATIONAL CONDITION 3.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 70 TO FACILITY OPERATING LICENSE NO. NPF-62

ILLINOIS POWER COMPANY

SOYLAND POWER COOPERATIVE, INC.

CLINTON POWER STATION, UNIT NO. 1

DOCKET NO. 50-461

1.0 INTRODUCTION

The Standard Technical Specifications (STS) developed for boiling water reactors (BWR) describes reactor coolant system chemistry limits for conductivity, chloride concentration, and pH for each Operational Condition. The purpose of this specification is to prevent damage to materials in contact with the reactor coolant system and to ensure that the structural integrity of the reactor coolant system is maintained. Action statements are provided to ensure that appropriate actions are taken when a chemistry parameter exceeds its specified limit. When chemistry parameters exceed limits during Operational Conditions 1, 2, or 3, shutdown actions are required. Similarly, when such limits are exceeded during Operational Conditions 4 or 5, an engineering evaluation is required to ensure structural integrity prior to plant restart.

Due to a formatting error when developing the Clinton Power Station (CPS) Technical Specifications (TS), TS 3.4.4 ACTION c.1.a does not specify any action if conductivity or pH limits are exceeded during Operational Conditions 4 or 5. While ACTION c.1.b permits an engineering evaluation to verify structural integrity of the reactor coolant system if chloride concentration exceeds prescribed limits, ACTION c.1.a does not address similar actions.

By letter dated December 15, 1992, the Illinois Power Company (IP, the licensee), requested an amendment to Facility Operating License No. NPF-62 for the CPS. The proposed amendment would add a requirement to perform an engineering evaluation prior to plant restart of the impact on the reactor coolant system structural integrity if the reactor coolant system conductivity or pH exceeded their limit for specified time periods during plant shutdown conditions.

2.0 EVALUATION

A comparison of the CPS TSs with recently licensed BWR facilities identifies an inconsistency regarding specification 3/4.4.4, "Chemistry." TS 3/4.4.4 identifies reactor coolant system limits for chloride concentration,

conductivity, and pH for the different Operational Conditions. The inconsistency involves actions to be taken during Operational Conditions 4 and 5 when chemistry limits are exceeded.

The draft STS for BWRs require an engineering evaluation to be performed to verify the structural integrity of the reactor coolant system prior to plant restart in the event that chemistry parameters exceed the TS limits. However, the CPS TSs were formatted in such a manner that an engineering evaluation was only required if the chloride concentration exceeded prescribed limits. No actions are stated if conductivity or pH limits are exceeded during shutdown conditions.

The licensee's letter states that chemical decontamination of the Reactor Recirculation and Reactor Water Cleanup Systems is planned for the next refueling outage. This is currently scheduled for September 1993. Should the decontamination process result in conductivity or pH limits being exceeded for more than 72 hours during Operational Conditions 4 or 5, the current TSs could not be met.

The licensee's proposal is to make a formatting change so that the CPS TSs are similar to the draft STS. The change will require an engineering evaluation prior to plant restart if any of the chemistry limits of TS 3.4.4 are exceeded during plant shutdown for more than the prescribed time limits. The change does not alter the current chemistry limitations of the reactor coolant system nor does it alter the engineering evaluation that is to be performed.

The staff concurs that the intended action statement was to apply to all three chemistry parameters during shutdown conditions. Correction of this formatting error will introduce new conditions that will require an engineering evaluation and will provide appropriate action statements for the TSs. Therefore, based on our review, the staff finds the proposed change 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 requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. 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 7000). 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: March 29, 1993