March 6, 1995

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Mr. Richard F. Phares
Director - Licensing
Clinton Power Station
P. O. Box 678
Mail Code V920
Clinton, Illinois 61727

SUBJECT: ISSUANCE OF AMENDMENT NO. 97 TO FACILITY OPERATING LICENSE NO. NPF-62 - CLINTON POWER STATION, UNIT 1 (TAC NO. M89683)

Dear Mr. Phares:

The U. S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment No. 97 to Facility Operating License No. NPF-62 for the Clinton Power Station, Unit No. 1. The amendment is in response to your application dated June 13, 1994 (U-602272).

The amendment modifies Clinton Power Station Technical Specification 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)," by changing the frequency of leak testing for the 36-inch supply and exhaust containment ventilation isolation valves. The valves, which were previously leak-tested once every six months, will now be tested in accordance with 10 CFR 50, Appendix J. In the event the valves are opened, they must be leak-tested within 92 days.

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

Douglas V. Pickett, Senior Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-461

Enclosures: 1. Amendment No. 97 to NPF-62
2. Safety Evaluation

cc w/encls: See next page

*See Previous Concurrence #95-043 NTO

DOCUMENT NAME: G:\PD33SECY\TAC89683.AMD

OFFICE	LA:PDIII-3	PM:PDIII-3	BC:SCSB	BC:OTSB	OGC	PD:PDIII-3
NAME	MRushbrook	DPickett:bm	RLobel*	CGrimes	CHOLLER	LNorrholm
DATE	2/13/95	2/14/95	2/10/95	2/16/95	2/28/95	3/3/95

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

March 6, 1995

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Director - Licensing
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Mr. Richard F. Phares
Illinois Power Company

Clinton Power Station
Unit No. 1

cc:

Mr. John Cook
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

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

Mr. R. T. Hill
Licensing Services Manager
General Electric Company
175 Curtner Avenue, M/C 481
San Jose, California 95125

Regional Administrator, Region III
801 Warrenville Road
Lisle, Illinois 60532-4351

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

Mr. J. W. Blattner
Project Manager
Sargent & Lundy Engineers
55 East Monroe Street
Chicago, Illinois 60603

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

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. 97
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 June 13, 1994, 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. 97 , 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

Douglas V. Pickett, Senior Project Manager
Project Directorate III-3
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: March 6, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 97

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.

Remove Pages	Insert Pages
3.6-17	3.6-17

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.1.3.4	Verify the isolation time of each power operated and each automatic PCIV, except MSIVs, is within limits.	In accordance with the Inservice Testing Program
SR 3.6.1.3.5	----------NOTE---------- Only required to be met in MODES 1, 2, and 3. ---------- Perform leakage rate testing for each primary containment purge valve with resilient seals.	Once within 92 days after opening the valve AND -----NOTE------ SR 3.0.2 is not applicable ---------- In accordance with 10 CFR 50, Appendix J, as modified by approved exemptions
SR 3.6.1.3.6	Verify the isolation time of each MSIV is $\geq$ 3 seconds and $\leq$ 5 seconds.	In accordance with the Inservice Testing Program
SR 3.6.1.3.7	Verify each automatic PCIV actuates to the isolation position on an actual or simulated isolation signal.	18 months

(continued)

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 97 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

The Clinton Power Station (CPS) Containment Building Ventilation and Purge System consists of a 36-inch primary containment building ventilation system and a 12-inch containment purge system. The 36-inch ventilation system isolation valves are butterfly valves equipped with resilient seals. System operation is typically restricted to shutdown conditions. The 12-inch purge system is normally in operation when the plant is at power.

The CPS technical specifications for the 36-inch ventilation system isolation valves were originally written to reflect operating experience of resilient seals. Resilient seals have been known to degrade more rapidly than valves without such seals. Therefore, increased testing of these valves was considered necessary in order to detect signs of degradation. The staff's original Safety Evaluation Report required periodic testing of once every three months for active valves and once every six months for inactive valves. Since the licensee was planning to perform ASME stroke testing every three months, the CPS technical specifications were originally written to require leak tests at least once every 92 days with an upper leakage limit of 0.01 L_a.

Operating experience at the Clinton Station has subsequently demonstrated that there is no need to operate the 36-inch ventilation system during operating Modes 1, 2, and 3. In addition, by letter dated September 27, 1990, the licensee requested to defer stroke testing of the 36-inch isolation valves from quarterly to once every cold shutdown. These actions have significantly reduced the number of times that the valves are being cycled. The net result of valve testing during the last two operating cycles has been that resilient seal degradation is not occurring when the valves remain closed.

By letter dated June 13, 1994, the licensee stated that the current technical specifications requiring leak testing once every 92 days are overly conservative. (It should be noted that in Amendment No. 95 issued on December 2, 1994, the staff changed the frequency of testing these valves to once every 184 days.) Based on plant operating experience, the licensee proposed a test frequency in accordance with 10 CFR 50, Appendix J. In addition, in the event that the valves would be cycled during plant operation, the licensee proposed that the valves would be locally leak-tested within 92 days.

2.0 EVALUATION

When the CPS technical specifications were being developed, the staff was concerned about the durability of resilient seals on large purge system isolation valves. In addition, it was not known how frequently the Mark III containment plants would need to operate the 36-inch purge system. Due to the significant post-LOCA radiological consequences that could occur due to excessive leakage from these valves, the staff determined that it was important to monitor for any degradation. As stated above, the staff's SER stated that appropriate leak testing of these valves would be once every six months for inactive valves, and once every three months for active valves. Therefore, the CPS technical specifications were written to permit some limited use of the 36-inch ventilation system at power, provided that the valves were leak-tested once every 92 days, and that the individual valve leakage did not exceed 0.01 L_a.

The 36-inch supply and exhaust isolation valves (1VR001A & B and 1VQ004A & B) are associated with containment penetrations 1MC-101 and 1MC-102, respectively. Prior to startup from a refueling outage, the valves are leak-tested and caution-tagged closed for the duration of the operating cycle. Since the second refueling outage when the ASME stroke testing was deferred to cold shutdown conditions, these valves have not been cycled during plant operation. However, the licensee has continued to perform leak tests once every 92 days, as required by the technical specifications.

Operating experience at CPS has shown that if the valves are not cycled, no mechanism is introduced to significantly change the valve leakage rate. This is evidenced by the "as-found" local leak rate tests performed for these two containment penetrations. (This test is separate from that described above and assists maintenance staff in determining potential outage work.) During cycle 3, the measured leak rate for penetration 1MC-101 did not change at all, except for the test performed just prior to the third refueling outage when the leak rate decreased. During cycle 4, the measured leak rate for penetration 1MC-101 did not vary more than 250 sccm (approximately 8%) from the leak rate measured at the end of the third refueling outage. Regarding penetration 1MC-102, the leak rate did not vary more than 50 sccm (approximately 15%) during cycle 3. In addition, during cycle 4, the measured leak rate from penetration 1MC-102 remained below the value measured at the end of the third refueling outage, and was measured to be exactly the same for three consecutive test intervals.

Based on the test data discussed above, the licensee has demonstrated that the leakage characteristics for these valves remain basically unchanged, provided that the valves are not cycled. Since cycling the valves provides a mechanism for seal degradation, the licensee has proposed leak testing within 92 days following the opening of a 36-inch supply or exhaust isolation valve.

The licensee has no preventive maintenance plans for periodic replacement of the resilient seals. The valves are located indoors in mild environments, and will not be subject to harsh temperatures or radiation fields. Due to this mild environment, the licensee's equipment qualification manual, which is

based on vendor recommendations, lists the lifetime of the resilient seals for the full 40-year duration of the plant. In actual practice, the licensee trends leakage rates for these 36" valves and, as a result of this information, the licensee previously replaced the seal of one valve.

The technical specifications originally had an individual leakage limit of 0.01 L_a for each valve. While the improved technical specifications, which were issued in Amendment No. 95 on December 2, 1994, no longer list an individual leakage limit, the licensee still maintains this limit in owner controlled documents. Discussions with the licensee indicate that they have no plans to modify or delete this limit.

The staff concurs with the licensee's assessment that the leakage characteristics of the valves will not significantly change once the valves are known to be leak-tight and they remain in the closed position. The licensee's proposal does not change the safety function of these valves or the individual leakage limits. While the frequency of testing will be decreased from once every 92 days to once every refueling cycle, this would appear to be sufficient to identify long-term seal degradation provided the valves are not opened. As previously discussed, if the valves are opened, a separate leakage test will be conducted within 92 days. Therefore, based on the above information, the staff finds the licensee's proposal to be 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 and changes surveillance requirements. 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 (59 FR 49427). 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 6, 1995