

February 7, 1991

Docket No. 50-461

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

Dear Mr. Spangenberg:

SUBJECT: ENVIRONMENTAL ASSESSMENT - CLINTON NUCLEAR POWER STATION,  
UNIT NO. 1 (TAC NO. 79378)

Enclosed for your information is a copy of an "Environmental Assessment and Finding of No Significant Impact." The Environmental Assessment relates to your request dated January 18, 1991.

The Environmental Assessment has been sent to the Office of the Federal Register for publication.

Sincerely,

Original Signed By:

Anthony T. Gody, Jr., Project Manager  
Project Directorate III-3  
Division of Reactor Projects - III/IV/V  
Office of Nuclear Reactor Regulation

Enclosure:  
Environmental Assessment

cc w/enclosure:  
See next page

DISTRIBUTION

Docket File	NRC & Local PDRs	PDIII-3 Reading	BBoger	JZwolinski
PKreutzer	OGC	EJordan	ACRS(10)	AGodyJr
GPA/PA	PDIII-3 Gray	Region III, DRP		

PDIII-3/LA	PDIII-3/PM	OGC	PDIII-3/PD
PKreutzer	AGodyjr:rc	<i>[Signature]</i>	JHannon
2/6/91	2/6/91	2/6/91	2/7/91

DOCUMENT NAME: EA LTR 79378

9102180139 910207  
PDR ADOCK 05000461  
P PDR

120024

*[Handwritten: QF01 11]*

*[Handwritten: CP-1]*



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

February 7, 1991

Docket No. 50-461

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

Dear Mr. Spangenberg:

SUBJECT: ENVIRONMENTAL ASSESSMENT - CLINTON NUCLEAR POWER STATION,  
UNIT NO. 1 (TAC NO. 79378)

Enclosed for your information is a copy of an "Environmental Assessment and Finding of No Significant Impact." The Environmental Assessment relates to your request dated January 18, 1991.

The Environmental Assessment has been sent to the Office of the Federal Register for publication.

Sincerely,

A handwritten signature in cursive script, reading "Anthony T. Gody, Jr.", is positioned above the typed name.

Anthony T. Gody, Jr., Project Manager  
Project Directorate III-3  
Division of Reactor Projects - III/IV/V  
Office of Nuclear Reactor Regulation

Enclosure:  
Environmental Assessment

cc w/enclosure:  
See next page

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 67727

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

Mr. L. Larson  
Project Manager  
General Electric Company  
175 Curtner Avenue, N/C 395  
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 COMMISSIONILLINOIS POWER COMPANY, ET AL.CLINTON POWER STATION, UNIT NO. 1DOCKET NO. 50-461ENVIRONMENTAL ASSESSMENT AND FINDING OFNO SIGNIFICANT IMPACT

The U. S. Nuclear Regulatory Commission (the Commission) is considering issuance of a temporary exemption from the requirements of Appendix J to 10 CFR Part 50 to Illinois Power Company\*, (the licensee), for the Clinton Power Station, Unit No. 1, located in Harp Township, DeWitt County, Illinois.

ENVIRONMENTAL ASSESSMENTIdentification of Proposed Action

The proposed action would grant a temporary exemption from requirements contained in Sections III.B.3 and III.C.3 of Appendix J to 10 CFR Part 50, which states, in part, that "...the combined leakage rate for all [containment] penetrations and valves subject to Type B and C tests shall be less than 0.60 La."

The proposed action is in accordance with the licensee's request for a temporary exemption dated January 18, 1991.

---

\*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.

The Need for the Proposed Action

The proposed exemption is needed because the requirements of Sections III.B.3 and III.C.3 of Appendix J to 10 CFR Part 50 would not be satisfactorily met if the current air leakage of feedwater containment isolation valves 1B21-F032A(B) were to be included in the overall Integrated Leak Rate Test (ILRT) total.

The two feedwater containment penetrations for which this exemption is needed consist of two check valves and a remote-manual motor-operated gate valve (gate valve) in series.

The situation was identified after performing extensive refurbishing on the outboard feedwater containment isolation check valves (1B21-F032A(B)) during the current refueling outage. Although the F032A(B) check valves passed a 1000 psig water test performed in accordance with Section XI of the ASME Code, they failed an air test pursuant to Appendix J.

In a discussion with the licensee on January 8, 1991, the staff indicated that this penetration leakage should be calculated utilizing the check valve with the highest leakage rate. Prior to the January 8, 1991 discussion, the licensee calculated the feedwater penetration leakage based on the valve with the second highest leakage. Utilizing this methodology, the licensee took credit for the shut gate valve and assumed the valve with the lowest leakage failed to open. A conservative calculation of penetration leakage would include the two boundaries left for containment isolation. This would result in a penetration leakage calculation equal to the leakage of the valve with the lowest individual leakage of the two remaining boundaries. The staff indicated to the licensee that the gate valves should not be counted as part of the containment boundary, at least for the time it is open, because they do not respond to an automatic containment isolation signal.

The design of the 1B21-F032A(B) check valve differs from the design of the inboard check valve (1B21-F010A(B)), in that the F032A(B) check valve utilizes a tilting disc and hard seat while the F010A(B) check valve utilizes a soft seat design. The soft seat design of the F010A(B) check valves makes it easier for these valves to pass the Appendix J air test. The licensee stated in its request that a permanent and effective solution (most likely involving changes to the current design) is required to consistently obtain acceptable air leakage results for the F032A(B) check valves. The licensee has also indicated that several months would be required to identify and evaluate the alternatives, adopt the best alternative, procure the required materials, and implement the needed changes.

Based on the above discussion and the licensee's commitment to address the F032A(B) check valve air leakage problem adequately, the staff has determined that there is sufficient need for the proposed action.

#### Environmental Impacts of the Proposed Action

The Commission's staff has determined that granting the proposed exemption would not significantly increase the probability or amount of expected containment leakage and that containment integrity would thus be maintained. Consequently, the probability of accidents would not be increased, nor would the post-accident radiological releases be greater than previously determined. Neither would the proposed exemption otherwise affect radiological plant effluents. Therefore, the Commission's staff concludes that there are no significant radiological environmental impacts associated with the proposed exemption.

With regard to potential nonradiological impacts, the proposed exemption involves a change to surveillance and testing requirements.

It does not affect nonradiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed exemption.

#### Alternative to the Proposed Action

Since the Commission concluded that there are no significant environmental impacts associated with the proposed action, any alternatives would have either no or greater environmental impact.

The principal alternative would be to deny the requested exemption. This would not reduce the environmental impacts attributed to the facility but would result in a prolonged and costly extension to the current refueling outage.

#### Alternative Use of Resources

This action does not involve the use of any resources not previously considered in the "Final Environmental Statement Related to the Operation of Clinton Power Station, Unit No. 1," dated May 1982.

#### Agencies and Persons Consulted

The NRC staff reviewed the licensee's request and did not consult other agencies or persons.

#### FINDING OF NO SIGNIFICANT IMPACT

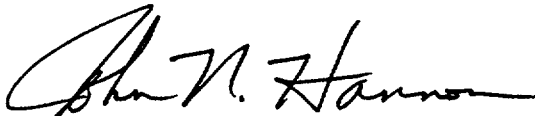
The Commission has determined not to prepare an environmental impact statement for the proposed exemption.

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 application for exemption dated January 18, 1991, which is available for public inspection at the Commission's Public Document Room, 2120 L Street, N.W., Washington, D.C. 20555 and at the Vespasian Warner Public Library, 120 West Johnson Street, Clinton, Illinois 61727.

Dated at Rockville, Maryland, this                      day of                      1991.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "John N. Hannon". The signature is fluid and cursive, with a long horizontal stroke extending to the left.

John N. Hannon, Director  
Project Directorate III-3  
Division of Reactor Projects III/IV/V  
Office of Nuclear Reactor Regulation