

May 24, 1990

Docket No. 50-461

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

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Dear Mr. Spangenberg:

SUBJECT: TECHNICAL SPECIFICATION CHANGE REQUEST TO ADD AN ACTION FOR  
THE ADS ACCUMULATOR LOW PRESSURE ALARM SYSTEM FOR THE CLINTON  
POWER STATION, UNIT 1 (TAC NO. 66553)

The Commission has issued the enclosed Amendment No. 36 to Facility Operating License No. NPF-62 for the Clinton Power Station, Unit No. 1. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated October 30, 1987.

This amendment consists of the addition of an ACTION to Technical Specification 3.5.1 for an inoperable Automatic Depressurization Systems (ADS) low pressure alarm system instrumentation channel(s).

A copy of our Safety Evaluation is also enclosed. Notice of Issuance is being filed with the Office of the Federal Register for publication.

Sincerely,

/s/

John B. Hickman, Project Manager  
Project Directorate III-2  
Division of Reactor Projects - III,  
IV, V and Special Projects  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 36 to License No. NPF-62
2. Safety Evaluation
3. Notice of Issuance

cc w/enclosures:  
See next page

*SEE PREVIOUS CONCURRENCE			
PD3/2:LA	PD3/2:PM	OGC	PD3/2:D
*LLUTHER	*JHICKMAN/bj	*MYoung	*JCRAIG
04/11/90	04/17/90	04/27/90	04/18/90

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

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See next page

Mr. Frank A. Spangenberg  
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Clinton Power Station  
Unit 1

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



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

ILLINOIS POWER COMPANY, ET AL.

DOCKET NO. 50-461

CLINTON POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 36  
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 October 30, 1987, 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:

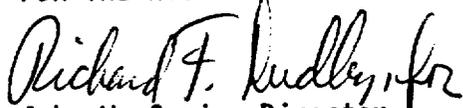
\*Illinois Power Company is authorized to act as agent for Soyland Power Cooperative, Inc. and has exclusive responsibility and control over the physical construction, operation and maintenance of the facility.

Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 36, 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



John W. Craig, Director  
Project Directorate III-2  
Division of Reactor Projects - III,  
IV, V and Special Projects

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: May 24, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 36

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 pages are identified by amendment number and contain vertical lines indicating the area of change.

Remove

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3/4 5-4

Insert

3/4 5-3

3/4 5-4

## EMERGENCY CORE COOLING SYSTEMS

### ECCS -OPERATING

#### LIMITING CONDITION FOR OPERATION (Continued)

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##### 3.5.1 ACTION (Continued):

- e. For ECCS Divisions I and II, provided that ECCS Division III is OPERABLE and Divisions I and II are otherwise OPERABLE:
  - 1. With one of the above required ADS valves inoperable, restore the inoperable ADS valve to OPERABLE status within 14 days or be in at least HOT SHUTDOWN within the next 12 hours and reduce reactor steam dome pressure to  $\leq$  100 psig within the next 24 hours.
  - 2. With two or more of the above required ADS valves inoperable, be in at least HOT SHUTDOWN within 12 hours and reduce reactor steam dome pressure to  $\leq$  100 psig within the next 24 hours.
- f. With an ADS accumulator low pressure alarm system instrumentation channel(s) inoperable:
  - 1. Determine the associated ADS accumulator system pressure from alternate indication and verify that ADS accumulator pressure is greater than or equal to 140 psig at least once per 12 hours,
  - 2. Restore the inoperable ADS accumulator low pressure alarm system instrumentation channel(s) to OPERABLE status within 30 days or submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause of the malfunction and the plans for restoring the instrument(s) to OPERABLE status,
  - 3. The provisions of Specification 3.0.4 are not applicable.
- g. In the event an ECCS system is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date. The current value of the usage factor for each affected safety injection nozzle shall be provided in this Special Report whenever its value exceeds 0.70.

#### SURVEILLANCE REQUIREMENTS

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- 4.5.1 ECCS Divisions I, II, and III shall be demonstrated OPERABLE by:
  - a. At least once per 31 days for the LPCS, LPCI, and HPCS systems:
    - 1. Verifying by venting at the high point vents that the system piping from the pump discharge valve to the system isolation valve is filled with water.

EMERGENCY CORE COOLING SYSTEMS  
ECCS - OPERATING  
SURVEILLANCE REQUIREMENTS (Continued)

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4.5.1 (Continued)

2. Verifying that each valve (manual, power operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct\* position.
- b. Verifying that when tested pursuant to Specification 4.0.5 each:
    1. LPCS pump develops a flow of at least 5010 gpm with a pump differential pressure greater than or equal to 276 psid.
    2. LPCI pump develops a flow of at least 5050 gpm with a pump differential pressure greater than or equal to 113 psid.
    3. HPCS pump develops a flow of at least 5010 gpm with a pump differential pressure greater than or equal to 363 psid.
  - c. For the LPCS, LPCI, and HPCS systems, at least once per 18 months performing a system functional test which includes simulated automatic actuation of the system throughout its emergency operating sequence and verifying that each automatic valve in the flow path actuates to its correct position. Actual injection of coolant into the reactor vessel may be excluded from this test.
  - d. For the HPCS system, at least once per 18 months, verifying that the suction is automatically transferred from the RCIC storage tank to the suppression pool on a RCIC storage tank low water level signal and on a suppression pool high water level signal.
  - e. For the ADS by:
    1. At least once per 31 days, performing a CHANNEL FUNCTIONAL TEST of the accumulator low pressure alarm system.
    2. At least once per 18 months, performing a system functional test which includes simulated automatic actuation of the system throughout its emergency operating sequence, but excluding actual valve actuation.
    3. At least once per 18 months, manually opening each ADS valve when the reactor steam dome pressure is greater than or equal to 100 psig\*\* and observing that:
      - a. The control valve or bypass valve position responds accordingly, or
      - b. There is a corresponding change in the measured steam flow, or
      - c. The acoustic tail-pipe monitor alarms.
    4. At least once per 18 months, performing a CHANNEL CALIBRATION of the accumulator low pressure alarm system and verifying an alarm setpoint of  $\geq$  140 psig on decreasing pressure.

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\*Except that an automatic valve capable of automatic return to its ECCS position when an ECCS signal is present may be in position for another mode of operation.

\*\*The provisions of Specification 4.0.4 are not applicable provided the surveillance is performed within 12 hours after reactor steam pressure is adequate to perform the test.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 36 TO FACILITY OPERATING LICENSE NO. NPF-62

CLINTON POWER STATION, UNIT NO. 1

ILLINOIS POWER COMPANY

DOCKET NO. 50-461

1.0 INTRODUCTION

By letter dated October 30, 1987, the Illinois Power Company (IP), et al. (the licensees) requested an amendment to Facility Operating License No. NPF-62 for the Clinton Power Station, Unit 1. The proposed amendment would add an ACTION to Technical Specification 3.5.1 for an inoperable Automatic Depressurization System (ADS) low pressure alarm system instrumentation channel(s).

2.0 EVALUATION

At Clinton, the automatic depressurization system (ADS) uses selected safety/relief valves (SRVs) for depressurization of the reactor. The purpose of the air accumulators for the ADS is to provide the SRVs that are in the ADS with sufficient air supply to cycle the valves open should the normal ADS air supply fail. The ADS accumulators are designed to provide two SRV actuations at 70% of drywell design pressure, which is equivalent to five actuations at atmospheric pressure. The air accumulators and associated equipment and instrumentation are designed to perform their safety function in an accident environment for 100 days following an accident. Air leakage from the accumulators must be accounted for in order to assure that the inventory of compressed air in the accumulators is available for their safety function.

Section 3/4.5 of the Clinton Technical Specifications contains Surveillance Requirements for the ADS accumulators low pressure alarm system. However, there is no ACTION included in the Limiting Conditions for Operation Section of the specification that addresses the alarms. The ACTIONS currently specified only address inoperability of the ADS valves themselves. Inoperability of an ADS accumulator low pressure alarm system does not necessarily constitute inoperability of the associated ADS valves.

The as-built design at Clinton includes redundant instrumentation to determine the status of ADS accumulator pressure even with the Technical Specification required alarm inoperable. ADS accumulator header pressure (the process variable monitored by the primary instrument) can be periodically verified using the direct pressure instrument provided in the main control room. This instrument is also powered from a divisional safety-related power supply and was installed to the requirements of Regulatory Guide 1.97. In

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addition, a non-safety low pressure alarm from the individual accumulator pressure switches is also provided in the main control room.

The proposed action statement for inoperable ADS accumulator low pressure alarm system instrumentation would require verifying adequate pressure every 12 hours and restoring the alarm to operable within 30 days or to submit a Special Report to the NRC. In addition, the provisions of Specification 3.0.4 would not be applicable. The periodic verification in the proposed action would be on a frequent enough basis that a satisfactory assessment of ADS operability would be provided. Clinton Supplemental Safety Evaluation Report No. 5 reviewed a calculation that demonstrated the capability of the ADS accumulators to meet the ADS needs for a 7-day period without replenishment. The alternate verification is also consistent with action requirements that have been approved for similar facilities. The proposed compensatory action is therefore acceptable to the staff. The extended restoration period and the 3.0.4 exemption are also acceptable since the loss of the alarm does not affect ADS operability and there is satisfactory availability of backup instrumentation for determining ADS accumulator pressure status.

### 3.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an environmental assessment and finding of no significant impact has been prepared and published (55 FR 21277) in the Federal Register on May 23, 1990. Accordingly, based upon the environmental assessment, the Commission had determined that the issuance of this amendment will not have a significant effect on the quality of the human environment and that no environmental impact statement need be prepared.

### 4.0 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, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and the security nor to the health and safety of the public.

Principal Contributor: John B. Hickman, NRR/PDIII-2

Dated: May 24, 1990

UNITED STATES NUCLEAR REGULATORY COMMISSIONILLINOIS POWER COMPANY, ET AL.DOCKET NO. 50-461NOTICE OF ISSUANCE OF AMENDMENT TOFACILITY OPERATING LICENSE

The United States Nuclear Regulatory Commission (the Commission) has issued Amendment No. 36 to Facility Operating License No. NPF-62 issued to the Illinois Power Company (IP), and Soyland Power Cooperative, Inc. (the licensees), for operation of the Clinton Power Station, Unit 1, located in DeWitt County, Illinois.

This amendment consists of the addition of an ACTION to Technical Specification 3.5.1 for an inoperable Automatic Depressurization System (ADS) low pressure alarm system instrumentation channel(s).

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment.

Notice of Consideration of Issuance of Amendment and Opportunity for Prior Hearing in connection with this action was published in the FEDERAL REGISTER on February 18, 1988 (53 FR 4916). No request for hearing or petition for leave to intervene was filed following this notice.

The Commission has prepared an Environmental Assessment and Finding of No Significant Impact related to the action and has determined not to prepare an

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environmental impact statement. Based upon the Environmental Assessment, the Commission has concluded that the issuance of this amendment will not have a significant effect on the quality of the human environment.

For further details with respect to the action, see (1) the application for amendment dated October 30, 1987, (2) Amendment No. 36 to License No. NPF-62, and (3) the Environmental Assessment and Finding of No Significant Impact. All of these items are available for public inspection at the Commission's Public Document Room, 2120 L Street N.W., Washington, D.C.; and at Vespasian Warner Public Library, 120 West Johnson Street, Clinton, Illinois 61727. A copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Reactor Projects.

Dated at Rockville, Maryland this 24th day of May, 1990 .

FOR THE NUCLEAR REGULATORY COMMISSION



Richard F. Dudley, Acting Director  
Project Directorate III-2  
Division of Reactor Projects - III,  
IV, V and Special Projects  
Office of Nuclear Reactor Regulation