

February 22, 1990

Docket No. 50-461

Mr. Dale L. Holtzscher
Acting 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 r/f	JZwolinski
LLuther	JHickman
JCraig	OGC
DHagan	EJordan
GHill(4)	WJones
ACRS(10)	EButcher
ARM/LFMB	GPA/PA
Plant File	

Dear Mr. Holtzscher:

SUBJECT: TECHNICAL SPECIFICATION CHANGE REQUEST TO REVISE THE DEFINITION OF CORE ALTERATION - CLINTON POWER STATION, UNIT NO. 1 (TAC NO. 73807)

The Commission has issued the enclosed Amendment No. ³² 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 June 30, 1989.

This amendment revises Technical Specification Sections 1.8 to change the definition of core alteration to exclude the normal movement of LPRMs or the under-vessel replacement of SRMs, IRMs, TIPs, or special moveable detectors from being considered a core alteration. Technical Specification Section 3.9.5 is also revised to remain consistent with the revised definition.

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

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. 32 to License No. NPF-62
2. Safety Evaluation

cc w/enclosures:

See next page

PDIII-2:LA

PDIII-2:PM

DOCUMENT: [AMEND4]

PDIII-2:PD

OGC CAS for EL 2-7-90

LLuther

JHickman:ta

JCraig

1/ /90

1/8/90

1/8/90

1/8/90

9003070075 900222
PDR ADDOCK 05000461
PDC

JFOI
1/ CP-1

February 22, 1990

Docket No. 50-461

Mr. Dale L. Holtzscher
Acting 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 r/f	JZwolinski
LLuther	JHickman
JCraig	OGC
DHagan	EJordan
GHill(4)	WJones
ACRS(10)	EButcher
ARM/LFMB	GPA/PA
Plant File	

Dear Mr. Holtzscher:

SUBJECT: TECHNICAL SPECIFICATION CHANGE REQUEST TO REVISE THE DEFINITION OF CORE ALTERATION - CLINTON POWER STATION, UNIT NO. 1 (TAC NO. 73807)

The Commission has issued the enclosed Amendment No. 32 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 June 30, 1989.

This amendment revises Technical Specification Sections 1.8 to change the definition of core alteration to exclude the normal movement of LPRMs or the under-vessel replacement of SRMs, IRMs, TIPs, or special moveable detectors from being considered a core alteration. Technical Specification Section 3.9.5 is also revised to remain consistent with the revised definition.

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

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. 32 to License No. NPF-62
2. Safety Evaluation

cc w/enclosures:

See next page

PDIII-2:LA

PDIII-2:PM

PDIII-2:PD

OGC *CS for EL 2-7-90*

LLuther *[Signature]*

JHickman:ta

JCraig

1/ /90

1/10/90

1/8/90

1/18/90

[Handwritten Signature]
DOCUMENT [AMEND4]



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

February 22, 1990

Docket No. 50-461

Mr. Dale L. Holtzscher
Acting Manager - Licensing and Safety
Clinton Power Station
P. O. Box 678
Mail Code V920
Clinton, Illinois 61727

Dear Mr. Holtzscher:

SUBJECT: TECHNICAL SPECIFICATION CHANGE REQUEST TO REVISE THE DEFINITION
OF CORE ALTERATION - CLINTON POWER STATION, UNIT NO. 1
(TAC NO. 73807)

The Commission has issued the enclosed Amendment No. 32 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 June 30, 1989.

This amendment revises Technical Specification Sections 1.8 to change the definition of core alteration to exclude the normal movement of LPRMs or the under-vessel replacement of SRMs, IRMs, TIPS, or special moveable detectors from being considered a core alteration. Technical Specification Section 3.9.5 is also revised to remain consistent with the revised definition.

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

Sincerely,

A handwritten signature in black ink, appearing to read "John B. Hickman".

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. 32 to License No. NPF-62
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. Frank A. Spangenberg
Illinois Power Company

Clinton Power Station
Unit 1

cc:

Mr. J. S. Perry
Vice President
Clinton Power Station
P. O. Box 678
Clinton, Illinois, 61727

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

Mr. R. D. Freeman
Manager-Nuclear Station Engineering Dept.
Clinton Power Station
P. O. 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, Bldg. #4
Glen Ellyn, Illinois 60137

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. 32
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 30, 1989, 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.

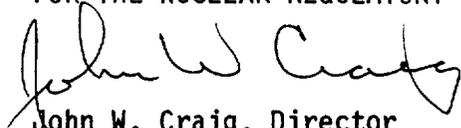
9003070077 900222
PDR ADOCK 05000461
P PDC

Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 32, 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: February 22, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 32

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

1-2

3/4 9-7

Insert

1-2

3/4 9-7

DEFINITIONS

CONTAINMENT AND REACTOR VESSEL ISOLATION CONTROL SYSTEM RESPONSE TIME

1.7 The CONTAINMENT AND REACTOR VESSEL ISOLATION AND CONTROL SYSTEM (CRVICS) RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its isolation actuation setpoint at the channel sensor until the isolation valves travel to their required positions. Times shall include diesel generator starting and sequence loading delays where applicable. The response time may be measured by any series of sequential, overlapping or total steps such that the entire response time is measured.

CORE ALTERATION

1.8 CORE ALTERATION shall be the addition, removal, relocation or movement of fuel, sources, or reactivity controls within the reactor pressure vessel with the vessel head removed and fuel in the vessel. Movement, including undervessel replacement, of the SRMs, IRMs, LPRMs, TIPs, or special movable detectors is not considered a CORE ALTERATION. Suspension of CORE ALTERATIONS shall not preclude completion of the movement of a component to a safe conservative position.

CORE OPERATING LIMITS REPORT

1.9 The CORE OPERATING LIMITS REPORT is the Clinton-specific document that provides core operating limits for the current operating reload cycle. These cycle-specific core operating limits shall be determined for each reload cycle in accordance with Specification 6.9.1.9. Plant operation within these operating limits is addressed in individual Specifications.

CRITICAL POWER RATIO

1.10 The CRITICAL POWER RATIO (CPR) shall be the ratio of that power in the assembly which is calculated by application of an approved General Electric Critical Power correlation to cause some point in the assembly to experience boiling transition, divided by the actual assembly operating power.

DOSE EQUIVALENT I-131

1.11 DOSE EQUIVALENT I-131 shall be that concentration of I-131, microcuries per gram, which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in Table III of TID-14844, "Calculation of Distance Factors for Power and Test Reactor Sites."

DRYWELL INTEGRITY

1.12 DRYWELL INTEGRITY shall exist when:

- a. All drywell penetrations required to be closed during accident conditions are either:
 1. Capable of being closed by an OPERABLE drywell automatic isolation system or
 2. Closed by at least one manual valve, blind flange, or deactivated automatic valve secured in its closed position, except as provided in Table 3.6.4-1 of Specification 3.6.4.
- b. The drywell equipment hatch is closed and sealed.
- c. The drywell airlock is OPERABLE pursuant to Specification 3.6.2.3.

REFUELING OPERATIONS

3/4.9.5 COMMUNICATIONS

LIMITING CONDITION FOR OPERATION

3.9.5 Direct communication shall be maintained between the control room and refueling platform personnel.

APPLICABILITY: OPERATIONAL CONDITION 5, during CORE ALTERATIONS*.

ACTION:

When direct communication between the control room and refueling platform personnel cannot be maintained, immediately suspend CORE ALTERATIONS.

SURVEILLANCE REQUIREMENTS

4.9.5 Direct communication between the control room and refueling platform personnel shall be demonstrated within one hour prior to the start of and at least once per 12 hours during CORE ALTERATIONS.*

*Except movement of control rods with their normal drive system.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 32 TO FACILITY OPERATING LICENSE NO. NPF-62
CLINTON POWER STATION, UNIT NO. 1
ILLINOIS POWER COMPANY ET AL.
DOCKET NO. 50-461

1.0 INTRODUCTION

By letter dated June 30, 1989, 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 revise Technical Specification Section 1.8 to change the definition of core alteration to exclude the normal movement of LPRMs or the undervessel replacement of SRMs, IRMs, LPRMs, TIPS, or special moveable detectors from being considered a core alteration. Technical Specification Section 3.9.5 would also be revised to remain consistent with the revised definition.

2.0 EVALUATION

As currently defined in the Clinton Technical Specifications:

"CORE ALTERATION shall be the addition, removal, relocation or movement of fuel, sources, incore instruments or reactivity controls within the reactor pressure vessel with the vessel head removed and fuel in the vessel. Normal movement of the SRMs, IRMs, or TIPS, or special moveable detectors, is not considered a CORE ALTERATION. Suspension of CORE ALTERATIONS shall not preclude completion of the movement of a component to a safe conservative position."

The definition of core alteration is used as a specific identified condition in the Applicability Section of a number of Technical Specification Limiting Conditions for Operation (LCOs). These LCOs impose appropriate additional requirements and conditions on the plant.

The current definition of core alteration includes the normal movement of the local power range monitors (LPRMs) as being a core alteration. However, Clinton is a BWR/6 which incorporated certain design changes compared to earlier boiling water reactors. One of these changes is the introduction of a thimble/dry tube that houses the LPRM strings. The thimble is contained in a housing constrained by an assembly situated below the core plate and which provides a sealing surface under the reactor vessel. The thimbles are welded to the vessel and extend to the access area below the vessel. Thus, LPRMs may be replaced or removed from below the reactor vessel in the same manner as

other incore instruments (SRMs, IRMs, etc.) without the removal of the reactor vessel head or movement of the fuel or other vessel intervals. The LPRMs are only removed from the core when they are being replaced and they have no normal drive mechanisms. Discussions with General Electric indicated that removal and insertion of an LPRM has a negligible impact on core reactivity. Based on the above discussion, the movement of the LPRMs would have no more impact on plant safety than the normal movement of the other incore instruments.

The current definition of core alteration defines the normal movement of the SRMs, IRMs, TIPs, or special moveable detectors as not being a core alteration. Various licensees have interpreted "normal" as including and not including the undervessel replacement of the various moveable detectors. The "normal" movement of the moveable incore detectors (SRMs, IRMs, and TIPs) includes the withdrawal of the detector to a point well below the bottom of active fuel. With respect to the core, the configuration that exists when a moveable detector is withdrawn is essentially equivalent to that which exists when a moveable detector is withdrawn further and removed for replacement. The removal of the moveable detectors for replacement, therefore, has no additional effect on core configuration or reactivity as compared to "normal" withdrawal. In the specific case of the LPRMs, they have no normal drive mechanism and are only moved when they are removed from the core for replacement. Although the availability of the moveable detectors would be affected differently in the two cases, the availability of the moveable detectors is supported by the Technical Specifications dedicated to ensuring the operability of the specific detector. Based on the above discussion, there is no specific reason that the replacement of the moveable detectors should be restricted by the LCOs governing core alteration and therefore included in the definition of core alteration.

With the two modifications to the definition of core alteration discussed above, the words "incore instrument" should be removed from the first sentence that defines core alteration. This is necessary to remain consistent with the second sentence which will state that the movement of the SRMs, IRMs, LPRMs, TIPs, or special moveable detectors (the incore instruments) is not considered a core alteration.

Also to remain consistent with the revised definition, Technical Specification Section 3.9.5 should be revised to delete the note that provides an exception for incore instrumentation movement from the core alteration applicability. The modification to the definition of core alteration will delete incore instrumentation movement from being considered a core alteration for all the Clinton Technical Specifications.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves changes to requirements with respect to the installation or use of components located within the restricted area as defined in 10 CFR Part 20, and a change in surveillance requirements for the facility. The 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this 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 nor environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 CONCLUSION

The staff has reviewed the proposed change to Technical Specification Section 1.8 to exclude the normal movement of LPRMs or the undervessel replacement of SRMs, IRMs, LPRMs, TIPs, or special moveable detectors from being defined as a core alteration, and the proposed change to Technical Specification Section 3.9.5 to remain consistent with the revised definition. Based on this review, the staff concludes that the changes are consistent with changes that have been made for other BWR-6 facilities and clarifies the applicability and scope of the definition of core alteration with respect to the movement of fuel, sources, or reactivity control components versus movement of incore instrumentation.

The NRC staff has concluded, based on its review of 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, (3) 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: February 22, 1990