

April 4, 2002

Mr. Oliver D. Kingsley, President  
and Chief Nuclear Officer  
Exelon Nuclear  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, Illinois 60555

SUBJECT: CLINTON POWER STATION, UNIT 1 - ISSUANCE OF AMENDMENT  
(TAC NO. MB2053)

Dear Mr. Kingsley:

The U.S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment No. 148 to Facility Operating License No. NPF-62 for the Clinton Power Station, Unit 1. The amendment is in partial response to the application from AmerGen Energy Company, LLC, dated May 21, 2001.

The amendment revises the actions required if the refueling equipment interlocks become inoperable. The remaining requested change to revise the frequency of the refueling equipment interlock inputs channel functional test from 7 to 31 days will be addressed in separate correspondence.

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,

*/RA/*

Jon B. Hopkins, Senior Project Manager, Section 2  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-461

Enclosures: 1. Amendment No. 148 to NPF-62  
2. Safety Evaluation

cc w/encls: See next page

April 4, 2002

Distribution w/encls:

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<b>NAME</b>	<b>JHopkins</b>	<b>THarris</b>	<b>WBeckner</b>	<b>AHodgon</b>	<b>AMendiola</b>
<b>DATE</b>	<b>03/14/02</b>	<b>03/26/02</b>	<b>03/22/02</b>	<b>03/19/02</b>	<b>01/04/02</b>

OFFICIAL RECORD COPY

Oliver D. Kingsley

Clinton Power Station, Unit 1  
AmerGen Energy Company, LLC

cc:

John Skolds  
Chief Operating Officer  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, Illinois 60555

K. A. Ainger  
Director-Licensing  
Mid-West Regional Operating Group  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, Illinois 60555

William Bohlke  
Senior Vice President Nuclear Services  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, Illinois 60555

Robert Helfrich  
Senior Counsel, Nuclear  
Mid-West Regional Operating Group  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, Illinois 60555

John Cotton  
Senior Vice President - Operations  
Support  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, Illinois 60555

Document Control Desk-Licensing  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, Illinois 60555

Christopher Crane  
Senior Vice President - Mid-West  
Regional Operating Group  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, Illinois 60555

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

Jeffrey Benjamin  
Vice President - Licensing and  
Regulatory Affairs  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, Illinois 60555

J. M. Heffley  
Vice President  
Clinton Power Station  
RR 3, Box 228  
Clinton, IL 61727-9351

Robert J. Hovey  
Operations Vice President  
Mid-West Regional Operating Group  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, Illinois 60555

M. J. Pacilio  
Plant Manager  
Clinton Power Station  
RR 3, Box 228  
Clinton, IL 61727-9351

W. S. Iliff  
Regulatory Assurance Manager (Acting)  
Clinton Power Station  
RR 3, Box 228  
Clinton, IL 61727-9351

Oliver D. Kingsley

Clinton Power Station, Unit 1  
AmerGen Energy Company, LLC

cc:

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

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

Regional Administrator, Region III  
U.S. Nuclear Regulatory Commission  
801 Warrenville Road  
Lisle, IL 60532-4351

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

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

AMERGEN ENERGY COMPANY, LLC

DOCKET NO. 50-461

CLINTON POWER STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 148  
License No. NPF-62

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by AmerGen Energy Company, LLC (the licensee), dated May 21, 2001, 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:

(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. 148 are hereby incorporated into this license. AmerGen Energy Company, LLC 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 and shall be implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Anthony J. Mendiola, Chief, Section 2  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: April 4, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 148

FACILITY OPERATING LICENSE NO. NPF-62

DOCKET NO. 50-461

Replace the following page of the Appendix "A" Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove Pages

3.9-1

Insert Pages

3.9-1

3.9 REFUELING OPERATIONS

3.9.1 Refueling Equipment Interlocks

LCO 3.9.1 The refueling equipment interlocks shall be OPERABLE.

APPLICABILITY: During in-vessel fuel movement with equipment associated with the interlocks.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required refueling equipment interlocks inoperable.	A.1 Suspend in-vessel fuel movement with equipment associated with the inoperable interlocks(s).	Immediately
	<u>OR</u>	
	A.2.1 Insert a control rod withdrawal block	Immediately
	<u>AND</u>	
	A.2.2 Verify all control rods are fully inserted.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.9.1.1 Perform CHANNEL FUNCTION TEST on each of the following required refueling equipment interlock inputs:  a. All-rods-in,  b. Refuel platform position, and  c. Refuel platform main hoist, fuel loaded.	7 days

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 148 TO FACILITY OPERATING LICENSE NO. NPF-62  
AMERGEN ENERGY COMPANY, LLC  
CLINTON POWER STATION, UNIT 1  
DOCKET NO. 50-461

## 1.0 INTRODUCTION

By letter dated May 21, 2001, AmerGen Energy Company, LLC (the licensee), proposed an amendment to the Technical Specifications (TSs) for the Clinton Power Station. The proposed amendment revises the actions required if the refueling equipment interlocks become inoperable. The amendment request would allow in-vessel fuel movement to continue with inoperable refueling equipment interlocks, provided (1) control rod withdrawals are blocked and (2) all control rods are verified to be inserted. Additionally, the submittal included a request to revise the frequency of the refueling equipment interlock inputs channel functional test from 7 to 31 days. That change will be addressed in separate correspondence.

## 2.0 EVALUATION

The reactivity of boiling water reactor cores during refueling can be changed by either control rod withdrawals or fuel movement and TS 3.9.1, "Refueling Equipment Interlocks," enforces the objective that two activities that change the core reactivity should not be performed simultaneously. The refueling equipment interlocks prevent criticality during refueling operations. The interlocks act to prevent the operation of the refueling equipment or the withdrawal of control rods, when certain conditions are sensed by the interlock circuitry. This prevents inappropriate loading of fuel into the core with control rods withdrawn.

Current TSs require that, when refueling equipment interlocks become inoperable, in-vessel fuel movement with equipment associated with the interlocks be suspended. Suspension of in-vessel fuel movement also prevents the inappropriate loading of fuel into the core with control rods withdrawn. The licensee proposes to add alternative actions to the TSs in lieu of suspension of in-vessel fuel movement. The alternative actions would require that a control rod withdrawal block be inserted and verification that all control rods are fully inserted.

Control rods fully inserted maintain the reactor subcritical. The alternative actions prevent criticality during refueling operations by verifying all control rods fully inserted and by preventing withdrawal of any control rod; therefore, fuel will not be loaded into a cell in the core that has a control rod withdrawn.

The proposed change is not intended to voluntarily disable the refueling interlocks when they are performing satisfactorily or allow indefinite disabling of the interlocks. Rather, the alternate actions are to be performed in the event of an emergent failure, thereby providing operational flexibility under limited circumstances.

This amendment will not affect any requirements that involve the operability and reliability of the refueling equipment hardware. Any requirement that ensures that the refueling platform and the fuel grapple main hoist are operable and can perform their functions will remain in force. The amendment involves only the instrumentation and logic of the refueling equipment interlocks.

The Nuclear Regulatory Commission staff has evaluated the licensee's request to add alternative actions to TSs in the event of inoperable refueling equipment interlocks. The staff finds that the alternative actions will provide adequate protection against inadvertent criticality during in-vessel fuel movement if the refueling equipment interlocks become inoperable. Therefore, the requested change including the associated TS bases is 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 or changes a surveillance requirement. 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 (66 FR 66463). 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: J. Hopkins

Date: April 4, 2002