

January 26, 2006

Mr. Christopher M. Crane, President  
and Chief Executive Officer  
AmerGen Energy Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: CLINTON POWER STATION, UNIT 1 - ISSUANCE OF AMENDMENT FOR  
ADDITION OF OSCILLATION POWER RANGE MONITOR (TAC NO. MC6551)

Dear Mr. Crane:

The Commission has issued the enclosed Amendment No. 171 to Facility Operating License No. NPF-62 for Clinton Power Station, Unit 1. The amendment is in response to your application dated April 1, 2005, as supplemented by letter dated September 23, 2005.

The amendment adds technical specifications containing operability requirements for the Oscillation Power Range Monitor (OPRM), associated surveillance requirements, and a core operating limits report OPRM requirement.

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

Sincerely,

***/RA/***

Kahtan N. Jabbour, Senior Project Manager  
Plant Licensing Branch III-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-461

Enclosures: 1. Amendment No. 171 to NPF-62  
2. Safety Evaluation

cc w/encls: See next page

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AMERGEN ENERGY COMPANY, LLC

DOCKET NO. 50-461

CLINTON POWER STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 171  
License No. NPF-62

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by the AmerGen Energy Company, LLC (the licensee) dated April 1, 2005, as supplemented by letter dated September 23, 2005, 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

The Technical Specifications contained in Appendix A, as revised through Amendment No. 171, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days following startup from the February 2006 refueling outage.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Mindy S. Landau, Acting Chief  
Plant Licensing Branch III-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: January 26, 2006

ATTACHMENT TO LICENSE AMENDMENT NO. 171

FACILITY OPERATING LICENSE NO. NPF-62

DOCKET NO. 50-461

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by an amendment number and contain lines in the margin indicating the areas of change.

REMOVE

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3.4-1

3.4-2

3.4-3

3.4-4

3.4-5

5.0-18

5.0-19

INSERT

3.3-14a

3.3-14b

3.4-1

3.4-2

3.4-3

3.4-4

3.4-5

5.0-18

5.0-19

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 171 TO FACILITY OPERATING LICENSE NO. NPF-62,  
AMERGEN ENERGY COMPANY, LLC  
CLINTON POWER STATION, UNIT 1  
DOCKET NO. 50-461

## 1.0 INTRODUCTION

By application dated April 1, 2005, as supplemented by letter dated September 23, 2005, AmerGen Energy Company (the licensee) requested changes to the technical specifications (TSs) for Clinton Power Station, Unit 1 (CPS), to incorporate into the TSs the Oscillation Power Range Monitor (OPRM) instrumentation that will be declared operable. The supplement dated September 23, 2005, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on April 26, 2005 (70 FR 21452).

The OPRM provides an automatic "detect and suppress" action to replace the administrative controls currently in effect through operator training and manual actions. The proposed changes incorporate a new TS Section 3.3.1.3, "Oscillation Power Range Monitor (OPRM) Instrumentation," and revise Sections 3.4.1, "Recirculation Loops Operating," and 5.6.5, "Core Operating Limits Report (COLR)." The proposed TS Section 3.3.1.3 is added to give the OPRM limiting conditions for operation, applicability, action statement, completion time for actions, and system surveillance requirements. TS 5.6.5 is revised to add NEDO-32465-A, "BWR Owners' Group Reactor Stability Detect and Suppress Solutions Licensing Basis Methodology for Reload Applications" (August 1996), as a U.S. Nuclear Regulatory Commission (NRC) approved analytical method to determine the OPRM setpoints.

## 2.0 REGULATORY EVALUATION

Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Appendix A, General Design Criterion (GDC) 10, "Reactor Design," requires that the reactor core and associated coolant, control, and protection systems must be designed with appropriate margins to assure that specified acceptable fuel design limits are not exceeded during any condition of normal operation, including the effects of anticipated operational occurrences. GDC 12, "Suppression of Reactor Power Oscillations," requires that the reactor core and associated coolant, control, and protection systems be designed to assure that power oscillations which can result in conditions exceeding specified acceptable fuel design limits are not possible or can be reliably and readily detected and suppressed. The OPRM system provides compliance with GDCs 10 and 12 by detecting the onset of oscillations and initiating a reactor scram to suppress the oscillations. This assures that the fuel design safety limit (SL) will not be violated for anticipated oscillations.

The OPRM is a protection system and, as such, is required to meet GDC 20, "Protection system functions." GDC 20 requires the protection system to be designed (1) to initiate automatically the operation of appropriate systems including the reactivity control systems, to assure that specified acceptable fuel design limits are not exceeded as a result of anticipated operational occurrences, and (2) to sense accident conditions and to initiate the operation of systems and components important to safety.

The OPRM instrumentation satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii) for establishing a limiting condition for operation for each structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design-basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The OPRM provides the long-term stability corrective actions requested by the NRC-issued Generic Letter (GL) 94-02, "Long-Term Solutions and Upgrade of Interim Operating Recommendations for Thermal-Hydraulic Instabilities in Boiling Water Reactors."

The staff evaluation of the acceptability of the OPRM instrumentation is also based on 10 CFR 50.55a(h), "Protection and Safety Systems (IEEE [Institute of Electrical and Electronics Engineers] Standard 279)."

### 3.0 TECHNICAL EVALUATION

#### 3.1 Background

Under certain conditions, boiling-water reactor (BWR) cores may exhibit thermal-hydraulic (T-H) instabilities. These instabilities are characterized by periodic power and flow oscillations. If the oscillations become large enough, the fuel cladding integrity minimum critical power ratio (MCPR) SL and the requirements of GDCs 10 and 12 may be challenged. Based on this possibility, CPS is currently operating with the interim corrective actions (ICAs) described in the licensee's response to GL 94-02. The ICAs include restrictions on plant operation and procedural requirements for operator action in response to instability events.

The requirements of the ICAs and the existing TSs limit the probability of an instability event by restricting the duration of any entry into the regions of the power-flow map most susceptible to instability under the anticipated entry conditions. Actions are also required by the ICAs when conditions consistent with the onset of T-H oscillations are observed. These actions result in the suppression of conditions required for an instability event, and thereby prevent any potential challenge to the MCPR SL.

Implementation of the proposed TS revisions would allow the reactor protection system (RPS) trip function of the OPRM system to be enabled consistent with the Asea Brown Boveri Combustion Engineering (ABB-CE) Option III long-term solution for the T-H instability issue. The OPRM RPS trip function would provide automatic detection and suppression of conditions that might result in a T-H instability event and would allow elimination of the ICAs. As a result, the burden on the control room operators would be reduced.

The OPRM was installed at CPS in 1999, and is currently being operated in the “indicate only” mode to evaluate the system’s performance. The existing ICAs provide an acceptable method of ensuring an adequate margin to the MCPR SL until the OPRM RPS trip function is enabled.

The function of the OPRM is to detect core power oscillations and trip (scram) the plant if the magnitude of the oscillations exceeds the setpoint. The OPRM system consists of four OPRM channels and each OPRM channel consists of two OPRM modules either of which can initiate the trip signal for that channel. Each OPRM module receives input from 16 or 17 local power range monitors (LPRMs) in adjacent areas of the core. Each module also receives input from the other OPRM module in the trip channel, as well as from the RPS average power range monitor (APRM) power and flow signals to automatically enable the trip function of the OPRM module. Using a smaller group of LPRMs to monitor instantaneous flux provides better resolution for detecting local oscillations than APRMs alone. The LPRM signals are grouped together so that the resulting OPRM response provides adequate coverage of anticipated oscillation modes. Upon detecting conditions consistent with the possibility that local oscillations in core power will lead to a T-H instability, the OPRM initiates a reactor scram through the existing RPS trip logic. This OPRM capability assures protection of the MCPR SL during all anticipated core-wide and regional T-H instability events.

The OPRM system logic configuration conforms to the existing 1-out-of-2-taken-twice logic configuration of the RPS. Each module executes the algorithms on the LPRM signals based on the configuration for that channel and generates alarms and trips. The assigned locations of modules are consistent with the RPS and the neutron monitoring system separation requirements. The system design accounts for isolator accuracy, instrument and system response times, system performance requirements, and addresses redundancy, diversity, separation, and electrical isolation requirements.

The OPRM trip function is enabled when the rated thermal power (RTP) is greater than or equal to 21.6 percent and the recirculating drive flow is less than or equal to the value corresponding to approximately 60 percent of rated core flow. The OPRM provides annunciation to alert the operator when the system is enabled and also provides a pre-trip alarm upon detecting an imminent onset of local core power oscillations. The purpose of this alarm is to alert the plant operator to the plant condition in time for compensatory actions to suppress the conditions for an instability event. Each OPRM module uses three separate algorithms to detect and mitigate core power oscillations. The three algorithms are the period-based detection algorithm (PBDA), the amplitude-based algorithm, and the growth-rate algorithm. The PBDA algorithm actuates the RPS trip upon detecting oscillations of a certain period and amplitude, and is the only algorithm that is credited in the analysis of the capability of the OPRM system to protect the MCPR limit. The remaining two algorithms provide defense-in-depth and additional protection for T-H instability events.

### 3.2 Conformance With the Generic Topical Reports

In its submittal, the licensee stated that the implementation of the proposed changes will reduce the reliance on the operators because the OPRM system automatically protects against an MCPR SL violation during conditions that could lead to T-H instability. In addition, the licensee states that the proposed changes will not cause any degradation in the existing APRM, LPRM, and RPS systems or adversely impact the design basis and operation of any interfacing

equipment (i.e., APRM, RPS, recirculation flow unit, and LPRM systems). The staff has previously reviewed the design and effectiveness of the OPRM system and has approved the system for meeting the regulatory requirements to detect and suppress conditions that could lead to a T-H instability. The staff's approval of the OPRM system is documented in safety evaluation reports (SERs) for the following topical reports: (1) NEDO-32465-A, "BWROG Reactor Core Stability Detect and Suppress Solutions Licensing Basis Methodology and Reload Applications," August 1996, (2) NEDO-31960-A, "BWROG Long-Term Stability Solutions Licensing Methodology," November 1995, (3) NEDO-31960-A, Supplement 1, "BWROG Long Term Stability Solutions Licensing Methodology," November 1995, and (4) CENPD-400-P-A, Revision 1, "Generic Topical Report for the ABB Option III Oscillation Power Range Monitor (OPRM)," May 1995.

The staff's SER approving CENPD-400-P-A requires licensees to address the following six issues in their plant-specific submittals for implementing the ABB-CE Option III OPRM system as a permanent long-term solution for the T-H stability issue and to identify and justify any deviations from CENPD-400-P-A and its associated SER.

1. Confirm the applicability of CENPD-400-P, including clarifications and reconciled differences between the specific plant design and the topical report design descriptions.

In its submittal the licensee stated that the CPS installation and implementation of the OPRM are consistent with CENPD-400-P. Based on its review of the information, the staff concludes that the licensee has adequately addressed this issue.

2. Confirm the applicability of the Boiling Water Reactor Owners Group (BWROG) topical reports that address the OPRM and associated instability function, setpoints, and margins.

The BWROG topical reports which address the OPRM and associated instability functions, setpoints, and margins, are NEDO-31960, the supplement to NEDO-31960, and NEDO-32465. In its submittals, the licensee addressed the five issues discussed in the following paragraphs to confirm the applicability of NEDO-31960, the supplement to NEDO-31960, and NEDO-32465 for implementation of the Option III OPRM system at CPS.

- (a) All three algorithms described in NEDO-31960 and Supplement 1 should be used in Option III or III-A. These three algorithms are the high LPRM oscillation amplitude, the high-low detection algorithm, and the period-based algorithm.

The licensee confirmed that all three algorithms are included in the Option III design. Only the PBDA is used to demonstrate protection of the MCPR SL for anticipated reactor instabilities. The other two algorithms are included as defense-in-depth features. Only the PBDA is required for TS operability of the OPRM instrumentation. This is acceptable because an approved methodology is used and all three algorithms are included in the Option III design.

- (b) The validity of the scram setpoints selected should be demonstrated by analysis. These analyses may be performed for a generic representative plant when

applicable, but should include an uncertainty treatment that accounts for the number of failed sensors permitted by the TSs of the plant's applicant.

The licensee stated that the methodology as described in NEDO-32465-A was followed for the PBDA including the analysis of sensor failure in the OPRM system, the cycle-specific analysis for the applicability of the scram setpoints, and the OPRM system operability. This is acceptable because the procedures specified in the approved methodology are used.

- (c) Implementation of Option III will require that the selected bypass region outside of which the detect and suppress action is deactivated be defined in the TSs.

The licensee confirmed that this region is included in surveillance requirement (SR) 3.3.1.3.4. The exclusion region methodology (safety analyses contained in NEDO-31960) would define a curved region on the power to flow operating map cutting across the corner of the map near the intersection of the natural circulation line and the highest flow control line. The staff finds this acceptable because the proposed exclusion region in conjunction with SR 3.3.1.3.4 is consistent with the boundaries discussed in NEDO-32465-A, Section 2.2.

- (d) If the algorithms detect oscillations, an automatic protective action should be initiated. This action may be a full scram or a selected rod insert (SRI).

The licensee confirmed that the automatic protective action of the OPRMs at CPS will be a full reactor scram, rather than an SRI. The staff finds this acceptable because the action is in compliance with GDCs 10 and 12.

- (e) The LPRM groupings defined in NEDO-31960-A to provide input to Option III algorithms are acceptable for the intended oscillation detection function. These LPRM groupings are the oscillation power range monitor for Option III.

The licensee stated that the LPRM assignments in Appendix D of NEDO-32465-A are identified as examples of the expected LPRM assignments that a licensee may choose without identifying the configuration which is used at CPS. The staff has reviewed the licensee's description and finds it acceptable because the configuration chosen is provided as one of the examples in NEDO-32465-A and NEDO-31960-A. However, the final configuration should be documented.

The staff finds that the licensee has adequately demonstrated the applicability of the topical reports by addressing the actions identified in the staff's SERs approving the topical reports.

3. Provide a plant-specific TS for the OPRM functions consistent with CENPD-400-P, Appendix A.

In its submittal, the licensee stated that the proposed TS is consistent with CENPD-400-P, Appendix A, except for the following deviations:

- a. A note has been added to SR 3.3.1.3.3 to state that the trip setpoint for this function is specified in the COLR. The staff finds this acceptable as this setpoint must be revised every refueling outage based on the reload analysis which the staff reviews for acceptability.
- b. SR 3.3.1.3.5 verifies that the OPRM system is not bypassed with reactor power  $\leq$  25 percent RTP and recirculation drive flow  $<$  60 percent of rated recirculation drive flow. The 60 percent value is consistent with the value in topical report. However, the 25 percent value is the plant-specific value and is based on the 20 percent power uprate. To preserve the same level of protection against the occurrence of a T-H instability, the instability exclusion region boundaries were unchanged with respect to absolute power level. Since the reactor core flow did not change with the power uprate, its value did not change. However, the 30 percent RTP value was reduced by the ratio of 100 percent/120 percent, reducing the power portion of the enabled region to 25 percent RTP. Based on this, the staff finds the proposed deviation acceptable.

Based on its review of the information provided in the submittals, the staff finds that the licensee has established the OPRM TSs in accordance with the requirements of the topical reports except for the deviations identified above. Based on its review, the staff concludes that the deviations are acceptable and meet the requirements of 10 CFR 50.36.

4. Confirm that the plant-specific environmental (temperature, humidity, radiation, electromagnetic and seismic) conditions are enveloped by the OPRM equipment environmental qualification values.

In its submittal, the licensee stated that the OPRM is designed to meet the temperature, radiation, and seismic environmental conditions at CPS. At CPS, OPRM equipment is installed in the main control room and is qualified to perform its intended design functions continuously in the control room environment, except at the lower end of the control room humidity range. The OPRM equipment is qualified to 30 percent relative humidity whereas the CPS humidity could go as low as 5 percent on a temporary basis. The licensee has analyzed the effect of low humidity on OPRM equipment, and has determined that it will continue to operate properly if relative humidity is temporarily below 30 percent. The OPRM system is designed to provide a high degree of immunity from electromagnetic interference/radio frequency interference (EMI/RFI). The licensee further stated that equipment for the proposed OPRM trip has been qualified for EMI and RFI susceptibility. In response to the staff's request to identify the EMI/RFI level to which these components are qualified, the licensee confirmed in its September 23, 2005, letter, that the site specific EMI/RFI level at the installed OPRM location is enveloped by the test level, and testing meets the EPRI [Electric Power research Institute] TR-102323 requirements. Based on its review of the licensee's submittals, and the licensee's statement that OPRM system testing meets the EPRI TR-102323 requirements, the staff finds that the licensee has satisfactorily addressed this issue.

5. Confirm that administrative controls are provided for manually bypassing OPRM channels or protective functions and for controlling access to the OPRM functions.

In its submittal, the licensee stated that the OPRM implementation at CPS is consistent with the staff's SER for CENPD-400-P. Plant administrative control procedures will be provided for placing individual OPRM modules in manual bypass. When the OPRM modules are not in manual bypass, the OPRM protective function is automatically bypassed or automatically activated when the reactor power and recirculation flow in the appropriate regions of the reactor power/flow map require automatic bypass or activation. The main control room sequence of event recorder or indicating lights are activated if the OPRM has been manually bypassed or deliberately rendered inoperable. Based on its review, the staff finds that the licensee has adequately addressed this issue.

6. Confirm that any changes to the plant operator's main control room panel have received human factor reviews per plant-specific procedures.

In its submittal, the licensee stated that for OPRM implementation, the OPRM instrumentation and associated components, controls, and annunciators were evaluated for acceptability and conformance to human engineering design principles and were found acceptable. There are procedural requirements for placing an OPRM module in bypass and for verifying restoration. Keylock access is necessary to manually bypass an OPRM module, and changes to the OPRM software require both keylock access and a password. Based on its review, the staff finds that the licensee has adequately addressed this issue.

The licensee's above-described responses to the 6 issues in the staff SER for CENPD-400-P are acceptable. The OPRM system at CPS is currently operating under the ICAs described in the licensee's response to NRC GL 94-02. The ICAs include restrictions on plant operation and procedural requirements for operator actions in response to T-H instability events. Since the OPRM system trip function will provide reliable detection and suppression of conditions leading to T-H instability events coupled with the OPRM TS requirements, operation of the plant in regions of the power/flow map potentially susceptible to T-H instability can be permitted. Therefore, the staff concludes that current TS requirements which limit plant operation in these regions of the power/flow map are unnecessary and can be deleted.

In its submittals, the licensee stated that the capability of the OPRM to maintain the margin of safety associated with the MCPR SL for instability events has been demonstrated by a plant-specific analysis based on the staff-approved methodology described in NEDO-32645-A and that this capability will be verified as part of the cycle-specific core reload analysis for future operating cycles. On this basis, the staff concludes that OPRM system at CPS will continue to meet GDC 10 and 12 and therefore, it is acceptable to the staff.

Based on the above discussion, the staff concludes that the licensee's proposed TS Bases are consistent with the referenced topical reports and with the removal of the ICAs.

### 3.3 Evaluation of Proposed TS Changes

- (1) Add TS Section 3.3.1.3, "Oscillation Power Range Monitor (OPRM) Instrumentation," to TS Section 3.3, "Instrumentation."

This section includes the following:

- (a) A new TS for the OPRM instrumentation, which includes the limiting condition for operation (LCO), Applicability, Actions and SRs necessary to define the operability of the OPRM channels, and the actions that must be taken by the plant operators when the instruments become inoperable. TS Section 3.3.1.3 requires four channels of the OPRM instrumentation to be operable when reactor power is  $\leq 21.6$  percent RTP. In addition, a note was added in the ACTIONS section which states that "Separate Condition entry is allowed for each channel."
  - (b) LCOs A, B and C have been added which are consistent with the referenced topical reports.
  - (c) SRs 3.3.1.3.1 through 3.3.1.3.6 have been added. There are some deviations from the referenced topical reports which are addressed in Section 3.2 of this safety evaluation. A note is added which states that "When a channel is placed in an inoperable status solely for performance of required Surveillance, entry into associated Conditions and Required Actions may be delayed for up to 6 hours provided the OPRM maintains trip capability." Also, a statement is added to SR 3.3.1.3.2 to state that the setpoints for the trip function are specified in the COLR.
  - (d) Pages B 3.3-39a through B 3.3-39k have been added to provide the Bases for TS Section 3.3.1.3.
- (2) Revise TS Section 3.4.1, "Recirculation Loop Operating"

The licensee proposed to delete Figure 3.4.1-1, "Power versus Flow," and associated references to the figure from the LCO 3.4.1, Actions B, C, D, and F, and SR 3.4.1.2, to revise/renumber Actions E and G, and to add new Condition C with associated Action C1.

The staff has reviewed the proposed changes and finds them acceptable because the manual operator actions specified in TS LCO 3.4.1 (and its associated Conditions B, C, D, and F; Actions B.1, C.1, D.1, F.1, G.1, and G.2; and SR 3.4.1.2) are no longer in use due to the automatic functions provided by the OPRM.

- (3) Revise TS Section 5.6.5, "Core Operating Limits Report (COLR)"

The licensee proposed to add: (1) a new TS 5.6.5.a.5 "Oscillation Power Range Monitor (OPRM) Instrumentation;" and (2) a reference was added in TS 5.6.5.b. which is NEDO 32465, "BWR Owners' Group Reactor Stability Detect and Suppress Solutions Licensing Basis Methodology for Reload Applications."

The staff has reviewed the proposed changes and finds them acceptable because NEDO-32465 is an approved licensing topical report to support the new proposed TS 3.3.1.3 for determining the setpoint values of the applicable operating limits for OPRMs in the COLR.

### 3.4 Summary

Based on its review of the licensee's submittals dated April 1 and September 23, 2005, the staff finds that the licensee's application for the OPRM implementation and the associated proposed TS changes are consistent with the staff SER approving CENPD-400-P and the appropriate guidance for design of digital instrumentation and control system modifications. The staff has concluded in the review of CENPD-400-P that the ABB-CE digital OPRM system functions and design meet the requirements of IEEE Std. 279-1971, 10 CFR 50.55(a)(h), and 10 CFR Part 50, Appendix B, for digital reactor protection system design.

### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Illinois State official was notified of the proposed issuance of the amendments. The State official had no comments.

### 5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or changes the surveillance requirements. The NRC staff has determined that the amendments involve 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 amendments involve no significant hazards consideration, and there has been no public comment on such finding (70 FR 21452). Accordingly, the amendments meet 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 amendments.

### 6.0 CONCLUSION

The Commission 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 amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: H. Garg  
T. Huang

Date: January 26, 2006

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