September 13, 2006

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

SUBJECT: OYSTER CREEK NUCLEAR GENERATING STATION - ISSUANCE OF AMENDMENT RE: REQUEST TO INCREASE SAFETY VALVE AS-FOUND SETPOINT TOLERANCE FROM 1 PERCENT TO 3 PERCENT (TAC NO. MC9149)

Dear Mr. Crane:

The Commission has issued the enclosed Amendment No. 261 to Facility Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station (Oyster Creek), in response to your application dated December 2, 2005.

The amendment revises the Oyster Creek Technical Specifications to increase the allowable as-found main steam safety valve code safety function lift setpoint tolerance from ±1% to ±3%.

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

Sincerely,

/RA/

G. Edward Miller, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-219

Enclosure:
1. Amendment No. 261 to DPR-16
2. Safety Evaluation

cc w/encls: See next page

September 13, 2006

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

SUBJECT: OYSTER CREEK NUCLEAR GENERATING STATION - ISSUANCE OF AMENDMENT RE: REQUEST TO INCREASE SAFETY VALVE AS-FOUND SETPOINT TOLERANCE FROM 1 PERCENT TO 3 PERCENT (TAC NO. MC9149)

Dear Mr. Crane:

The Commission has issued the enclosed Amendment No. 261 to Facility Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station (Oyster Creek), in response to your application dated December 2, 2005.

The amendment revises the Oyster Creek Technical Specifications to increase the allowable as-found main steam safety valve code safety function lift setpoint tolerance from ±1% to ±3%.

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

Sincerely,

/RA/
G. Edward Miller, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-219

Enclosure:
1. Amendment No. 261 to DPR-16
2. Safety Evaluation

cc w/encls: See next page

DISTRIBUTION:

PUBLIC	RidsOgcRp	RidsNrrDorl
LPLI-2 R/F	GHill (2)	RidsNrrDorlLpl1-2
WBeckner	RidsNrrPMGMiller	RidsNrrLACRaynor
RidsAcrsAcnwMailCenter	RidsRgn1MailCenter	

Package Accession Number: **ML062260023**
Amendment Accession Number: **ML062260027**
TS(s) Accession Number: **ML06**

OFFICE	LPLI-2/PM	LPLI-2/LA	DSS/SCVB/BC	DSS/SBWB/BC	DCI/CPTB/BC(A)	OGC	LPLI-2/BC (A)
NAME	GEMiller	CRaynor	RDennig	GCranston	TLiu	SUttal	BPoole
DATE	8/22/06	8/22/06	8/23/06	7/26/06	7/26/06	9/05/06	9/07/2006

OFFICIAL RECORD COPY

AMERGEN ENERGY COMPANY, LLC

DOCKET NO. 50-219

OYSTER CREEK NUCLEAR GENERATING STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 261
License No. DPR-16

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by AmerGen Energy Company, LLC, (the licensee), dated December 2, 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 Facility Operating License is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment.

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 261, are hereby incorporated in the license. AmerGen Energy Company, LLC, 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 60 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Brooke D. Poole, Acting Chief
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical Specifications

Date of Issuance: September 13, 2006

ATTACHMENT TO LICENSE AMENDMENT NO. 261

FACILITY OPERATING LICENSE NO. DPR-16

DOCKET NO. 50-219

Replace the following pages of the Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	Insert
2.3-2	2.3-2
4.3-1	4.3-1

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 261

TO FACILITY OPERATING LICENSE NO. DPR-16

AMERGEN ENERGY COMPANY, LCC

OYSTER CREEK NUCLEAR GENERATING STATION

DOCKET NO. 50-219

1.0 INTRODUCTION

By application dated December 2, 2005, AmerGen Energy Company, LLC (AmerGen or the licensee) requested changes to the Facility Operating License for the Oyster Creek Nuclear Generating Station (Oyster Creek). The proposed amendment would revise the Oyster Creek Technical Specifications (TSs) to increase the allowable as-found main steam safety valve (MSSV) code safety function lift setpoint tolerance from ±1% to ±3%. AmerGen has indicated that, historically, there have been instances where one or more of the MSSVs were found to have as-found setpoints outside of the current TS limit of ±1%. This change would align the Oyster Creek TSs with Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) and reduce the number of non-safety significant Licensee Event Reports written due to TS violations caused by setpoint drift.

2.0 REGULATORY EVALUATION

The *Code of Federal Regulations* (10 CFR) Section 50.36, "Technical Specifications," paragraph (c)(1)(ii)(A) specifies, among other things: "Where a limiting safety system setting is specified for a variable on which a safety limit has been placed, the setting must be so chosen that automatic protective action will correct the abnormal situation before a safety limit is exceeded."

The Standard Technical Specifications (STS) were developed based on the criteria in 10 CFR 50.36(c)(2)(ii). Existing limiting conditions for operation and related surveillance requirements (SRs) included as TS requirements which satisfy any of the criteria specified in 10 CFR 50.36(c)(2)(ii) must be retained in the TSs. The Nuclear Regulatory Commission (NRC or the Commission) encourages the licensee to upgrade their TSs to be consistent with those criteria and conforming, to the extent practical and consistent with the licensing basis for the plant, to the current STS.

3.0 TECHNICAL EVALUATION

3.1 Description of Proposed Change

Currently, Oyster Creek TS Section 2.3.F, "Reactor High Pressure, Safety Valve Initiation," and TS 4.3.E, "Reactor Coolant," require that all MSSVs be operable with a lift setting of 1212 psig ±1% for the first set of MSSVs, and 1221 psig ±1% for the second set of MSSVs. The licensee proposed to change the MSSV setpoint tolerance from the current requirements of ±1% to ±3% (i.e., from 12 psig to 36 psig). No change is proposed to the as-left setting, which is to be ±1% of the specified nominal lift setpoint prior to reinstallation in the plant. Additionally, a change is included to delete a reference to a subsection of the ASME Code which no longer exists.

Additionally, the Bases for this SR would be revised to reflect these changes.

3.2 Description of System

There are 14 safety and relief valves on the 24-inch main steam headers inside the drywell at Oyster Creek. Nine are spring-loaded safety valves and discharge directly into the drywell. The remaining five are electromatic relief valves (ERVs), controlled automatically by reactor pressure switches, automatic depressurization system (ADS) signals, or manually from the control room, and discharge to the suppression pool. The ERVs are the main components of the ADS, whereas the spring-loaded safety valves (or MSSVs) typically do not open on any pressure transient except those resulting from main steamline isolation with scram failure, failure of the ERVs, or failure of the turbine bypass valves.

The nine MSSVs provide reactor vessel overpressure protection for plant operations at the licensed core thermal power level of 1930 megawatts thermal (MWt). The MSSVs are designed to limit the reactor vessel pressure to 110% of the design pressure during a main steam isolation valve (MSIV) closure with reactor scram on high neutron flux. The MSSVs are located on the main steamlines between the reactor vessel and the first isolation valve within the drywell. All nine MSSVs are required to be operable.

The ±1% allowable as-found MSSV code safety function lift setpoint tolerance currently specified in TS 2.3.F and TS 4.3 for Oyster Creek is based on the acceptance criteria originally defined by the ASME Code Section I. ASME Code Section I was used for the design of Oyster Creek's reactor pressure vessel (note that for newer plants, ASME Code Section III was used). The use of ±1% allowable as-found MSSV safety function lift setpoint tolerance in plant TSs has been a generic industry issue. Nuclear power plant licensees have experienced difficulty in meeting the typical ±1% setpoint for MSSVs. As a result, the Boiling-Water Reactor Owners' Group (BWROG) developed NEDC-31753P, "BWROG In-Service Pressure Relief Technical Specification Revision Licensing Topical Report," to support the use of ±3% setpoint tolerance, which is consistent with the ASME Operations and Maintenance (OM) Code requirements (formally Section XI requirements). NEDC-31753P was reviewed and approved by the NRC as documented in its safety evaluation report (SER) dated March 8, 1993. In its SER, the NRC determined that it is acceptable for licensees to submit TS amendment requests to revise the safety relief valve (SRV) code safety function lift setpoint tolerance to ±3%, provided that the setpoints for those SRVs tested are restored to ±1% prior to reinstallation. The NRC also

indicated in its SER that licensees planning to implement TS changes to increase the SRV setpoint tolerances should provide the following plant-specific analyses:

1. Transient analysis, using NRC-approved methods, of abnormal (anticipated) operational occurrences as described in NEDC-31753P, utilizing a ±3% setpoint tolerance for the safety mode of the SRVs (MSSV for Oyster Creek). [Note that the Oyster Creek Updated Final Safety Analysis Report (UFSAR) designates these events as abnormal operational transients (AOTs)].

2. Analysis of the design-basis overpressure event using the ±3% tolerance limit for the SRV setpoints to confirm that the vessel pressure does not exceed ASME Code upset limits.

3. Plant-specific analyses described in Items 1 and 2 should assure that the number of SRVs included in the analyses corresponds to the number of valves required to be operable in the TSs.

4. Re-evaluation of the performance of high-pressure systems (pump capacity, discharge pressure, etc.), motor-operated valves, and vessel instrumentation and associated piping considering the ±3% tolerance limit.

5. Evaluation of the ±3% tolerance on any plant-specific alternate operating modes (e.g., increased core flow, extended operating domain, etc.).

6. Evaluation of the effects of the ±3% tolerance limit on the containment response during loss-of-coolant accidents (LOCAs) and the hydrodynamic loads on the SRV discharge lines and containment.

3.3 Analysis of AOTs

The licensee evaluated the effects of pressurization transients on the fuel thermal limits to determine whether the increase in MSSV code safety function lift setpoint tolerance from ±1% to ±3% would be acceptable. The minimum critical power ratio (MCPR) and fuel thermal-mechanical limits were considered in this evaluation. The licensee has identified the turbine trip no bypass (TTNBP) as the limiting event. The TTNBP event was evaluated to determine the impact of the MSSV code safety function lift setpoint tolerance change on thermal limits. The results are based on the reload analysis for Oyster Creek Cycle 20. However, the licensee stated that because the general trends and characteristics (e.g., time of MCPR and peak nodal power vs. time of MSSV opening) of the TTNBP and other AOTs do not change from cycle to cycle, the conclusions are generic and apply to future operating cycles.

According to the licensee, the AOT analyses for Oyster Creek conservatively do not credit the opening of the MSSVs and the results of the analyses demonstrate that the MCPR and peak nodal power both occur prior to the time that any MSSV would be expected to open. Based on these results, the licensee concluded that increasing the MSSV setpoint to +3% above nominal will not affect the calculated thermal limit results. For a decrease in MSSV opening pressure of -3% below the nominal setpoint, the licensee states the results of the analysis continue to demonstrate that the MCPR and peak nodal power both occur prior to the time that any MSSV would be expected to open. Based on these results, the licensee concluded that decreasing

the MSSV setpoint to -3% below nominal will not affect the calculated thermal limit results if the MSSVs are assumed to open.

The NRC staff reviewed the licensee's evaluation of the effects of the increased MSSV setpoint tolerance on AOTs. Given that the calculated thermal limit results continue to demonstrate that the MCPR and peak nodal power occur prior to the time that any MSSV would be expected to open, the increase in MSSV code safety function lift setpoint from ±1% to ±3% is acceptable for AOT events.

3.4 Reactor Vessel Overpressure Protection

The ASME Code requires that the peak vessel pressure remain less than 110% of the vessel design pressure. The design pressure of the Oyster Creek reactor vessel is 1250 psig; therefore, 110% of the design pressure is 1375 psig. TS Safety Limit 2.2, "Reactor Coolant System Pressure," requires that the reactor coolant system pressure not exceed 1375 psig. The licensee identified the limiting overpressure event is the MSIV closure with flux scram event. This event assumes the failure of the MSIV limit switch (more than 10% closed) scram function. The reactor scram is initiated by the high neutron flux caused by the reactor vessel pressurization and the resultant collapse of moderator voids within the reactor core.

As part of the standard reload licensing analysis for Cycle 20, General Electric (GE) has performed an analysis of this event assuming 102% core thermal power, maximum licensed core flow (limiting condition), and end-of-cycle nuclear dynamic parameters for Cycle 20. This analysis also assumes that all of the ERVs fail. The setpoint of each of the MSSVs was assumed to be +3% above the nominal setpoint. The NRC-approved GE thermal hydraulic and nuclear kinetics coupled transient code ODYN was used to obtain the system response and peak calculated vessel pressure. The peak calculated reactor vessel (bottom head) pressure is 1335 psig, which is below the ASME Code limit of 1375 psig. The reactor vessel overpressure protection event is reanalyzed each reload to verify that the ASME Code overpressure protection criterion continues to be met.

The NRC staff reviewed the licensee's evaluation of the effects of the increased MSSV setpoint tolerance on reactor vessel overpressure protection. Given that this analysis assumed the setpoint of each MSSV to be 3% above the nominal setpoint, the increase in MSSV code safety function lift setpoint from ±1% to ±3% is acceptable for reactor vessel overpressure protection.

3.5 Number of MSSVs

Oyster Creek has a total of nine MSSVs. All MSSVs are required to be operational per TS 4.3.E. The results of the previously-discussed analyses are based on nine operational MSSVs and no change to this number is required per this license amendment request.

Based on the discussion above, no change to the number of required MSSVs per TS 4.3.E is proposed for this license amendment request. Therefore, the NRC staff finds that the increase in MSSV code safety function lift setpoint from ±1% to ±3% is acceptable.

3.6 High Pressure System Performance

The licensee stated that the Oyster Creek design does not include a high-pressure inventory makeup system. Oyster Creek relies on its low pressure core spray system for inventory makeup, which is actuated at reactor pressures below approximately 285 psig. Therefore, the licensee concluded that changing the upper MSSV setpoint tolerance from +1% to +3% above the nominal setpoint does not impact performance of the low pressure inventory makeup system.

Changing the upper MSSV setpoint tolerance will increase the maximum reactor pressure in which high-pressure systems must operate, which could potentially cause a reduction in the performance capability of these systems. This section documents the evaluation of the impact of the proposed MSSV opening setpoint tolerance changes on the performance of the following high-pressure systems:

- Standby liquid control (SLC) system
- Emergency isolation condensers

This evaluation is based on the current design-basis requirements for these systems. Increasing MSSV opening pressure is limiting for system performance evaluations.

3.6.1 SLC System

The SLC system is designed to shut down the reactor from rated power conditions to cold shutdown in an event in which all or some of the control rods cannot be inserted during a postulated anticipated transient without scram (ATWS) event. The SLC system performs this function by injecting a liquid solution of sodium pentaborate into the reactor vessel. The rate of reactivity compensation provided by the SLC system is designed to exceed the rate of reactivity gain associated with the reactor cool-down from the full power condition. The system is not provided as a backup for reactor trip functions since most transient conditions that require reactor trip occur too rapidly to be controlled by the SLC system.

The SLC system consists of two redundant, parallel, reciprocating piston, positive displacement pumps. The system's maximum pressure is limited by the setpoint for the system relief valves located on the discharge line of each pump. Oyster Creek's SLC system pump relief valves have a setpoint of 1400 psig. The limiting overpressure event (MSIV closure with high flux scram) results in a maximum reactor vessel pressure of 1335 psig (as compared to 1320 psig for the previous cycle analysis assuming a 1% setpoint tolerance). This maximum overpressure value provides a 65 psi operating margin for the SLC system compared with the previous cycle (Cycle 19) operating margin of 80 psi. The licensee stated that the 15 psi reduction in the SLC system operating margin does not significantly impact the operability of the SLC system under overpressure conditions.

The analytical basis for ATWS credits the actuation of the ERVs, which would further reduce maximum reactor vessel pressure. In addition, the ATWS event is a low probability event for which the use of nominal system operating parameters for the event analysis have been accepted by the NRC. Since the nominal MSSV setpoints are not being changed, the licensee concluded that this proposed change does not affect the capability of the SLC system to mitigate the consequences of an ATWS event.

The NRC staff reviewed the licensee's evaluation of the effects of the increased MSSV setpoint tolerance on the SLC system. Given that the proposed change will maintain adequate operating margin for the SLC system, the performance of the SLC system would not be significantly impacted by increasing the MSSV setpoint tolerance to ±3% and, therefore, is acceptable.

3.6.2 Emergency Isolation Condensers

The NRC staff reviewed the licensee's evaluation of the effects of the increased MSSV setpoint tolerance on the performance of the motor-operated valves (MOVs) in high-pressure systems. The licensee determined that there are steam supply and condensate return MOVs in the emergency isolation condenser system which potentially could be affected by the increased MSSV tolerance of ±3%. Isolation of the emergency isolation condensers in the event of a line break inside the condenser is achieved through closure of the steam supply and the condensate return valves. This could result in a larger differential pressure blowdown across valves while closing, if a higher transient reactor pressure is assumed. However, the requirements for closure of these valves are based on a line break at nominal reactor operating pressure. Therefore, the performance of the emergency isolation condensers is not affected by this change.

The above evaluation demonstrates that the performance of the MOVs would not be impacted by increasing the MSSV setpoint tolerance to ±3% and that with respect to the emergency isolation condensers the proposed change is acceptable.

3.7 Alternate Operating Modes Evaluation

The licensee stated that Oyster Creek has evaluated the impact of the ±3% tolerance on plant-specific alternate operating modes. The alternate operating modes, including extended load line limit, increased core flow, and feedwater temperature reduction were considered in determining the most restrictive analytical conditions (i.e., most limiting operating mode) for performing the analysis associated with the proposed TS change. Therefore, the licensee concluded the impact of the ±3% tolerance on the plant-specific alternate operating modes has been explicitly addressed and determined to be acceptable.

The NRC staff reviewed the licensee's evaluation of the effects of the increased MSSV setpoint tolerance on the alternate modes of operation at Oyster Creek. Given that the alternate operating modes were evaluated and found acceptable for a setpoint tolerance of ±3%, the increase in MSSV code safety function lift setpoint from ±1% to ±3% is acceptable with respect to alternate operating modes.

3.8 Containment Response During LOCA and Hydrodynamic Loads on MSSV Discharge Lines and Containment

The increase in the MSSV setpoint tolerance to ±3% was assessed to determine the potential impact on the containment design limits. The two primary areas of concern for the containment structures are (1) the pressure and temperature response and (2) the containment hydrodynamic loads from the MSSV discharge lines.

MSSV actuation exerts pressure and drag loads on containment structures and these discharge loads are potentially affected by an increase in discharge flow associated with an increased MSSV setpoint tolerance.

3.8.1 Containment Pressure and Temperature Response

The most limiting event in terms of peak containment pressure is the design-basis accident (DBA) LOCA, a recirculation line discharge break (UFSAR Section 6.2.1.1.3). An increase in MSSV setpoint tolerance has no effect on this event because the vessel depressurizes without MSSV actuation. Therefore, the licensee concluded that there is no effect on the DBA-LOCA containment peak pressure due to MSSV setpoint tolerance increase.

The most limiting event in terms of peak containment temperature is the main steamline break accident. Large steamline breaks result in a rapid depressurization that does not induce MSSV actuation. Smaller steamline breaks can result in high containment temperatures that can last for relatively long periods of time because the vessel remains at high pressure for a longer period of time than the DBA LOCA. Closure of the MSIVs during a small steamline break event may pressurize the vessel enough to actuate the MSSVs. For small steamline breaks with MSSV actuation the peak containment temperature occurs relatively late in the event following many MSSV actuations. The increased MSSV setpoint tolerance will result in a slight delay in initial MSSV actuation, and a higher discharge flow rate due to the higher vessel pressure. The total inventory loss from the vessel into the containment during MSSV actuations at higher pressures will be similar in magnitude because the MSSVs will be cycling at a different rate due to the higher opening pressure and increased flow rate at that pressure. The containment temperature is primarily dependent on reactor decay heat, which is not affected by an increase in the MSSV setpoint. Therefore, the licensee concluded that there is no effect on steamline break peak containment temperature due to MSSV setpoint tolerance increase.

The NRC staff reviewed the licensee's evaluation of the effects of the increased MSSV setpoint tolerance on containment pressure and temperature response. Given the relative independence of the containment pressure and temperature response to the increase in setpoint tolerance, the increase in MSSV code safety function lift setpoint from ±1% to ±3% is acceptable.

3.8.2 Hydrodynamic Loads on MSSV Discharge Lines and Containment

The NRC staff reviewed the licensee's evaluation of the effects of the increased MSSV setpoint tolerance on the structural integrity of the MSSV discharge lines and the containment structures. The MSSVs discharge into the branch of a full-size tee-pipe fitting and do not discharge directly into the torus. The increased MSSV setpoint tolerance has negligible impact on the torus hydrodynamic loads. The MSSV discharge tees are oriented such that steam jet impingement impact on the surrounding structures and components is avoided. Therefore, the small increase in MSSV discharge flow rate resulting from an increase in setpoint tolerance will have a negligible impact on containment structures and components.

Based on the demonstrated negligible impact on torus hydrodynamic loads, the NRC staff finds that the licensee has adequately addressed the effects of the increased MSSV setpoint tolerance to ±3% on the structural integrity of the MSSV discharge lines and the containment structures and, therefore, is acceptable.

The NRC staff reviewed the licensee's evaluation of the effects of the increased MSSV setpoint tolerance on the MSSV simmer margin, which is the difference between the normal operating system pressure and the MSSV setpoints. The licensee states that the MSSVs are designed to operate at 94% of their nominal setpoints without simmering (i.e., without beginning to open or leak). With the proposed ±3% setpoint tolerance, the MSSV would be operating at no less than 97% of their nominal setpoints. Therefore, the 94% design value continues to be bounding for the purpose of adequate simmer margin.

Given that adequate simmer margin will be maintained with the proposed change, the NRC staff finds that the licensee has adequately addressed the effects of increasing MSSV setpoint tolerance to ±3% and the proposed change is therefore acceptable.

3.9 Control Rod Drive (CRD) System

The CRD system performs two functions. The first function is the movement of the control rod blades to control reactor power during normal plant operations (e.g., startup, power, and shutdown). The second function is the rapid insertion of all control rods (scram) due to abnormal plant conditions. Increasing the allowable as-found MSSV code safety function lift setpoint tolerance from ±1% to ±3% does not change the normal reactor vessel operating pressure or the high reactor vessel pressure scram setpoint; therefore, the proposed increase in MSSV as-found setpoint tolerance will not impact the CRD system's capability of controlling reactor power during normal plant operations.

Increasing the allowable as-found MSSV setpoint tolerance will not change the reactor vessel pressure at which a scram is initiated but does have the potential for increasing the reactor pressure the CRD system is subjected to during the scram process. The CRD system is designed such that any increased reactor vessel pressure above atmospheric pressure aids in the insertion of the control rod blades during the scram process. The nitrogen accumulators are capable of executing a full scram at lower reactor pressures, and elevated reactor pressure may act as a supplementary force in driving the control rods. The potential for a higher MSSV setpoint drift may increase the rapidity of the scram function by increasing the maximum reactor pressure, while a potentially lower maximum pressure will not impair the ability of the CRD system to perform a scram. Given that the proposed change will not negatively impact the CRD scram performance, the NRC staff finds the proposed change acceptable with respect to the CRD system.

3.10 Additional Items

In addition to the requirements specified in the NRC staff's SER approving NEDC-31753P, the licensee also considered the effects of increasing the MSSV setpoint tolerance to ±3% on the CRD system, reactor vessel instrumentation system, and emergency procedure guidelines which are discussed below.

3.10.1 Reactor Vessel Instrumentation System

The components of the reactor vessel instrumentation system are designed to the same or greater pressure/temperature requirements as the reactor pressure vessel that have been evaluated as being acceptable for this proposed change. Normal plant operating parameters, which are unchanged by this proposed change, are used as inputs for instrument calibration.

The licensee stated that the lowest potential MSSV setpoint of 1176 psig (1212 psig - 3%) was evaluated and maintains significant margin over the highest ERV setpoint of 1105 psig, hence sufficient margin exists between the actuation of the ERVs and the lifting of the MSSVs.

The NRC staff reviewed the licensee's justification and concurs that, with the proposed change, adequate margin will be maintained over the highest ERV setpoint. Therefore, the proposed change is acceptable.

3.10.2 Emergency Procedure Guidelines

The licensee stated that the Emergency Procedure Guidelines (i.e., TRIP/SAMP Procedures) use nominal, realistic, and best estimate plant parameters for determining action levels. The nominal setpoints of the MSSVs are not impacted by the proposed TS changes. Therefore, the licensee stated that increasing the allowable MSSV as-found setpoint tolerance from ±1% to ±3% will not affect the Emergency Procedure Guidelines.

Based on the additional evaluations above, the NRC staff finds that the licensee has adequately addressed the effects of the increased MSSV setpoint tolerance to ±3% on the performances of the SLC and reactor vessel instrumentation systems and emergency procedure guidelines; therefore, the proposed change is acceptable.

3.11 Bases Pages

AmerGen included revised Bases pages with its December 2, 2005, submittal. The NRC staff reviewed the proposed changes and finds that they adequately reflect the proposed TS changes. Therefore, the NRC staff does not object to their inclusion in the Oyster Creek TSs.

4.0 STATE CONSULTATION

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

5.0 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. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluent that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has made a final finding that the amendment involves no significant hazards consideration. 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.

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

Principal Contributors: T. Ford
C. G. Hammer

Date: September 13, 2006

Oyster Creek Nuclear Generating Station

Site Vice President - Oyster Creek
Nuclear Generating Station
AmerGen Energy Company, LLC
P.O. Box 388
Forked River, NJ 08731

Senior Vice President of
Operations
AmerGen Energy Company, LLC
200 Exelon Way, KSA 3-N
Kennett Square, PA 19348

Kathryn M. Sutton, Esquire
Morgan, Lewis, & Bockius LLP
1111 Pennsylvania Avenue, NW
Washington, DC 20004

Kent Tosch, Chief
New Jersey Department of
Environmental Protection
Bureau of Nuclear Engineering
CN 415
Trenton, NJ 08625

Vice President - Licensing and
Regulatory Affairs
AmerGen Energy Company, LLC
4300 Winfield Road
Warrenville, IL 60555

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406-1415

Mayor of Lacey Township
818 West Lacey Road
Forked River, NJ 08731

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 445
Forked River, NJ 08731

Director - Licensing and Regulatory Affairs
AmerGen Energy Company, LLC
Correspondence Control
P.O. Box 160
Kennett Square, PA 19348

Manager Licensing - Oyster Creek
Exelon Generation Company, LLC
Correspondence Control
P.O. Box 160
Kennett Square, PA 19348

Regulatory Assurance Manager
Oyster Creek
AmerGen Energy Company, LLC
P.O. Box 388
Forked River, NJ 08731

Assistant General Counsel
AmerGen Energy Company, LLC
200 Exelon Way
Kennett Square, PA 19348

Ron Bellamy, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406-1415

Correspondence Control Desk
AmerGen Energy Company, LLC
200 Exelon Way, KSA 1—1
Kennett Square, PA 19348

Oyster Creek Nuclear Generating Station
Plant Manager
AmerGen Energy Company, LLC
P.O. Box 388
Forked River, NJ 08731