

October 26, 2001

Dr. Jill Lipoti
Assistant Director
Radiation Protection Programs
Division of Environmental Safety, Health
and Analytical Programs
Department of Environmental Protection
State of New Jersey
P.O. Box 415
Trenton, New Jersey 08625-0415

Dear Dr. Lipoti:

I am responding to your letter dated October 3, 2001, regarding the comments and concerns of the New Jersey (NJ) Bureau of Nuclear Engineering (BNE) with respect to a license amendment request for the Hope Creek Generating Station (HCGS). The license amendment, as requested by PSEG Nuclear LLC (PSEG), would eliminate the Main Steam Isolation Valve (MSIV) Sealing System (MSIVSS) and would increase the allowable leak rate for the MSIVs.

As noted in your letter, the NJ BNE provided comments to the Nuclear Regulatory Commission (NRC) regarding this license amendment request in a letter dated September 14, 2001. This letter was submitted following a telephone call on September 12, 2001, by Mr. Rick Ennis, the NRC's Project Manager for HCGS, to Mr. Rich Pinney of your staff, in which Mr. Ennis asked if the BNE had any comments on the proposed amendment. On September 18, 2001, Mr. Ennis called Mr. Pinney to clarify the comments in BNE's letter dated September 14, 2001.

On October 1, 2001, Mr. Ennis called Mr. Pinney to inform him of the impending issuance of the amendment and stated that BNE's comments had been addressed in the associated Safety Evaluation. During this conversation, Mr. Ennis stated that the amendment was scheduled to be issued by October 5, 2001. Mr. Pinney did not indicate that the BNE wanted to see the specific comment resolution or further discuss the comments prior to issuance of the amendment.

Your letter dated October 3, 2001, addressed to the NRC's Office of State and Tribal Programs, requested an opportunity to view the information supporting the resolution of BNE's comments, and to have a discussion about the issues prior to the issuance of the amendment. Unfortunately, the NRC staff in the Office of Nuclear Reactor Regulation (NRR) did not receive the letter before issuing the amendment on October 3, 2001. As I discussed with you in a telephone call on October 5, 2001, we were not aware of BNE's desire to further discuss its concerns prior to issuance of the amendment. At least one issue has surfaced regarding communication which, in part, contributed to this misunderstanding. The communication problem appears to be that BNE believed that the amendment was going to be issued on October 5 rather than by October 5. In the future, we encourage you to contact the DLPM Project Manager directly, or other DLPM staff (i.e., Section Chief, Project Director, or Division Director), if you have comments or concerns about proposed license amendment requests.

Your letters dated September 14 and October 3, 2001, expressed a concern that deletion of the MSIVSS would create an unmonitored, unfiltered release pathway. In addition, during our telephone conversation on October 5, 2001, you expressed a concern that implementation of the amendment could allow an increased dose to the public (during accident conditions) compared to the pre-amendment licensing basis. Details addressing these concerns are provided in Enclosure 1 to this letter.

During the telephone call on October 5, 2001, you also asked if there was any formal appeal process following NRC issuance of a license amendment. The regulations concerning public comments and State consultation related to an application for a license amendment are described in 10 CFR 50.91. In addition, the public is given notice of the opportunity for a hearing. However, these regulations pertain to the time period prior to issuance of a proposed amendment. After issuance of a license amendment, 10 CFR 2.206 allows the public to request enforcement-type action by the NRC. Under the regulations in 10 CFR 2.206, any person may file a request with the Executive Director for Operations to institute a proceeding pursuant to 10 CFR 2.202 to modify, suspend, or revoke a license, or for such other enforcement-type action that may be proper. The request must specify the enforcement action requested and set forth the facts that constitute the basis for the request, which usually focuses on why it is believed an NRC regulation is not being met. More information on this process is described in Enclosure 2, "Public Petition Process."

If the issue does not involve enforcement, but rather brings into question the adequacy of the Commission's rules and regulations, then any person may submit to the Commission a petition for rulemaking pursuant to 10 CFR 2.802. The petition should provide the technical and safety basis for the proposed rulemaking.

I trust that this letter is responsive to your concerns. We regret the misunderstanding regarding the issuance of the amendment and assure you that it is our intent to work with the States to understand all their concerns fully prior to acting on an amendment. If you have any additional questions or need further information, please do not hesitate to contact me.

Sincerely,

/RA/

John A. Zwolinski, Director
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Enclosures: 1. BNE Concerns
2. Public Petition Process

Your letters dated September 14 and October 3, 2001, expressed a concern that deletion of the MSIVSS would create an unmonitored, unfiltered release pathway. In addition, during our telephone conversation on October 5, 2001, you expressed a concern that implementation of the amendment could allow an increased dose to the public (during accident conditions) compared to the pre-amendment licensing basis. Details addressing these concerns are provided in Enclosure 1 to this letter.

During the telephone call on October 5, 2001, you also asked if there was any formal appeal process following NRC issuance of a license amendment. The regulations concerning public comments and State consultation related to an application for a license amendment are described in 10 CFR 50.91. In addition, the public is given notice of the opportunity for a hearing. However, these regulations pertain to the time period prior to issuance of a proposed amendment. After issuance of a license amendment, 10 CFR 2.206 allows the public to request enforcement-type action by the NRC. Under the regulations in 10 CFR 2.206, any person may file a request with the Executive Director for Operations to institute a proceeding pursuant to 10 CFR 2.202 to modify, suspend, or revoke a license, or for such other enforcement-type action that may be proper. The request must specify the enforcement action requested and set forth the facts that constitute the basis for the request, which usually focuses on why it is believed an NRC regulation is not being met. More information on this process is described in Enclosure 2, "Public Petition Process."

If the issue does not involve enforcement, but rather brings into question the adequacy of the Commission's rules and regulations, then any person may submit to the Commission a petition for rulemaking pursuant to 10 CFR 2.802. The petition should provide the technical and safety basis for the proposed rulemaking.

I trust that this letter is responsive to your concerns. We regret the misunderstanding regarding the issuance of the amendment and assure you that it is our intent to work with the States to understand all their concerns fully prior to acting on an amendment. If you have any additional questions or need further information, please do not hesitate to contact me.

Sincerely,
/RA/
 John A. Zwolinski, Director
 Division of Licensing Project Management
 Office of Nuclear Reactor Regulation

- Enclosures: 1. BNE Concerns
 2. Public Petition Process

DISTRIBUTION:

PUBLIC	TGorham	PLohaus, STP	OGC
BSheron	(EDO#GT20010449)	SBurns	OPA
WTravers	KJohnson	KCyr	OCA
WKane	LCox	MReinhart	TClark
CPaperiello	JZwolinski/TMarsh	JLee	GMeyer, RI
PNorry	EAdensam	SDroggitis	HMiller, RI
JCraig	JClifford	REnnis	
SCollins/JJohnson	PDI-2 R/F		

ACCESSION NUMBER: ML012880482 INCOMING NUMBER: ML012850141 PACKAGE NUMBER: ML012880498

*See previous concurrence **Verbal concurrence

OFFICE	PDI-2/PM	PDI-2/LA	SPSB/SC*	OGC*	STP/D*	Region I**
NAME	RFretz for REnnis	THarris for TClark	MReinhart	JMoore	PLohaus	RBarkley for GMeyer
DATE	10/26/01	10/26/01	10/17/01	10/24/01	10/17/01	10/16/01
OFFICE	PDI-2/SC	PDI/D*	TECH ED*	DLPM/D		
NAME	JClifford	EAdensam	PKleene	JZwolinski		
DATE	10/26/01	10/25/01	10/17/01	10/26/01		

Staff Responses to BNE Concerns

Doses to Public

During a telephone conversation between the NRC (Mr. John Zwolinski) and the NJ BNE (Dr. Jill Lipoti) on October 5, 2001, the BNE expressed a concern that implementation of the amendment (HCGS Amendment No. 134, dated October 3, 2001) could allow an increased dose to the public (during accident conditions) compared to the pre-amendment licensing basis. It should be noted that the license amendment is based on full implementation of an alternate source term using the guidance in Regulatory Guide (RG) 1.183, "Alternate Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors." Full implementation revises the plant licensing basis to specify the alternate source term in place of the previous source term and establishes the total effective dose equivalent (TEDE) acceptance criteria in Section 50.67 of Title 10 of the *Code of Federal Regulations* (10 CFR 50.67), for evaluating the radiological aspects of the plant site, in lieu of the whole body and thyroid dose guidelines in 10 CFR 100.11. Therefore, a one-for-one comparison of the radiological consequences before and after the implementation of the amendment is not entirely appropriate. As such, the following table is provided, for informational purposes, as an aid in understanding the previous and current licensing basis with respect to the calculated radiological consequences at the Exclusion Area Boundary (EAB) and the Low Population Zone (LPZ) due to the postulated design-basis loss-of-coolant accident (LOCA) at HCGS.

Radiological Consequences for Postulated Design-Basis LOCA at HCGS

	Previous Licensing Basis ⁽¹⁾		Current Licensing Basis ⁽²⁾
	Whole Body (rem)	Thyroid (rem)	TEDE (rem)
EAB (2-hour dose)	0.642	76.7	2.30
LPZ (30-day dose)	0.0808	7.69	0.489
Dose Criteria ⁽³⁾	25	300	25

- (1) The previous licensing basis values for the EAB and LPZ are from HCGS Updated Final Safety Analysis Report, Table 15.6-16.
- (2) The current licensing basis values for the EAB and LPZ are from Attachment 12 of PSEG letter LRN-01-254 dated August 6, 2001.
- (3) The dose criteria for the previous licensing basis is from 10 CFR 100.11 and the criteria for the current licensing basis is from 10 CFR 50.67.

Unfiltered Release Pathway

The BNE letters dated September 14 and October 3, 2001, expressed a concern that deletion of the MSIVSS would create an unmonitored, unfiltered release pathway. As discussed in the NRC's Safety Evaluation for the amendment, this comment pertains specifically to the turbine building louver (TBL) release pathway. The licensee's analysis assumes that during post-LOCA conditions (with a concurrent loss of offsite power), MSIV leakage travels through the main steamlines, enters the turbine building, and then releases through openings (louvers) in the turbine building. Although deletion of the MSIVSS creates the potential for an unmonitored, unfiltered release pathway, the staff concluded that the proposed amendment was acceptable because the radiological consequences calculated by both the licensee and the staff for the postulated design-basis LOCA (total for all pathways including the TBL release pathway) were within the NRC's dose acceptance criteria specified in 10 CFR 50.67, and because the methods, major parameters, and assumptions used in the licensee's dose calculations were consistent with the guidelines provided in RG 1.183.

In addition to deletion of the MSIVSS, the license amendment approved a change to the HCGS Technical Specifications (TSs) to increase the allowable MSIV leak rate to a maximum of 250 standard cubic feet per hour (scfh) combined through all four main steamlines. This allowable MSIV leak rate is equivalent to a containment leak rate of approximately 2% per day. The 2% per day value is based on 250 scfh for 24 hours per day divided by the HCGS containment air volume of 306,000 scf. As discussed below, the staff believes that leakage at such a small rate will have a negligible impact on the risk associated with severe accidents at HCGS and plants of a similar design.

In NUREG-1493, "Performance-Based Containment Leak-Test Program," the staff analyzed the risk impacts of nuclear reactor containment leak tightness, including the effects of an increase in the allowable leak rate from the containment following severe reactor accidents. Figures 5-6 through 5-8 of NUREG-1493 present risk measures for Peach Bottom (both HCGS and Peach Bottom are designed with Mark I type containments) as a function of unmitigated containment leak rate. As shown in these figures, the containment leak rates without any fission product attenuation do not cause risk to increase significantly until the leak rates exceed 100% per day.

Further inspection of the figures in NUREG-1493 reveals that increasing the containment leak rate from the nominal 0.5% per day to 5% per day leads to a barely perceptible increase in total population exposure and that increasing the containment leak rate to 50% per day increases the total population exposure by less than 1%. Therefore, the staff believes that the contribution from the allowed MSIV leakage (i.e., approximately 2% per day) with or without the MSIVSS is negligible with respect to established risk measures and that the risk impact for HCGS and plants of a similar design is insignificant.

Based on the above, although deletion of the MSIVSS creates the potential for an unmonitored, unfiltered release pathway (i.e., TBL release pathway), the TS limit on maximum allowable MSIV leakage (i.e., 250 scfh) is such that: (1) NRC's dose criteria will continue to be met; and (2) the risk to the public as a result of this amendment is negligible.

Public Petition Process (NUREG/BR-0200, Rev. 4)

Introduction

The U.S. Nuclear Regulatory Commission (NRC) was established in 1975 to protect public health and safety in the civilian use of nuclear power and materials in the United States. As part of its responsibilities, NRC assesses all potential health and safety issues related to licensed activities and encourages members of the public to bring safety issues to its attention.

Section 2.206 of Title 10 of the *Code of Federal Regulations* (10 CFR 2.206) describes the petition process—the primary mechanism for the public to request enforcement action by NRC in a public process.* This process permits anyone to petition NRC to take enforcement action related to NRC licensees or licensed activities. Depending on the results of its evaluation, NRC could modify, suspend, or revoke an NRC-issued license or take any other appropriate enforcement action to resolve a problem. Requests that raise health and safety issues without requesting enforcement action are reviewed by means other than the 2.206 process.

In its effort to improve public confidence, the NRC periodically reassesses the 2.206 petition process to enhance its effectiveness, timeliness and credibility. As part of these reassessments, other stakeholders through public meetings and workshops, surveys and Federal Register notices, as well as from its own staff experience. Specific improvements to the 2.206 process resulting from these initiatives include:

- Offering petitioners two opportunities to discuss the petition with the NRC's petition review board (PRB). The first is to allow the petitioner to provide elaboration and clarification of the petition before the PRB meets to discuss the petition. The second opportunity comes after the PRB has discussed the merits of the petition and allows the petitioner to comment on the PRB's recommendations regarding acceptance of the petition and any requests for immediate action.
- Offering an opportunity for a staff-petitioner-licensee meeting to discuss the details of the issue during the course of the review.
- Providing better, more frequent communications between the staff and petitioner throughout the process.
- Providing copies of all pertinent petition-related correspondence and other documents to the petitioners.
- Providing a copy of the proposed director's decision on the petition, both to the petitioner and the affected licensee for comments, and considering such comments before issuing the decision in final form.

*The NRC also has an allegation process in which individuals who raise potential safety concerns for NRC review are afforded a degree of protection of their identity. Other processes for public involvement are listed at the end of this pamphlet.

The Petition Process

The 2.206 process provides a simple, effective mechanism for anyone to request enforcement action and obtain NRC's prompt, thorough, and objective evaluation of underlying safety issues. It is separate and distinct from the processes for rulemaking and licensing, although they too allow the public to raise safety concerns to NRC.

Under the 2.206 process, the petitioner submits a request in writing to NRC's Executive Director for Operations, identifying the affected licensee or licensed activity, the requested enforcement action to be taken, and the facts the petitioner believes provide sufficient grounds for NRC to take enforcement action. Unsupported assertions of "safety problems," general opposition to nuclear power, or identification of safety issues without seeking enforcement action are not considered sufficient grounds for consideration as a 2.206 petition.

After receiving a request, NRC determines whether the request qualifies as a 2.206 petition. If the request is accepted for review as a 2.206 petition, the NRC sends an acknowledgment letter to the petitioner and a copy to the appropriate licensee and publishes a notice in the *Federal Register*. If the request is not accepted, NRC notifies the petitioner of its decision and indicates that the petitioner's underlying safety concerns will be considered outside the 2.206 process.

On the basis of an evaluation of the petition, the appropriate office director issues a decision and, if warranted, NRC takes appropriate enforcement action. Throughout the evaluation process, NRC sends copies of all pertinent correspondence to the petitioner and the affected licensee. NRC places all related correspondence in its Public Document Room (PDR) in Rockville, Maryland, and in the agency document control system. However, the agency withholds information that would compromise an investigation or ongoing enforcement action relating to issues in the petition. The NRC also sends the petitioner other information such as pertinent generic letters and bulletins.

The NRC notifies the petitioner of the petition's status every 60 days, or more frequently if a significant action occurs. Monthly updates on all pending 2.206 petitions are available on NRC's web site at <http://www.nrc.gov/NRC/PUBLIC/2206/index.html>, and in the PDR.

Petition Technical Review Meeting

A petition technical review meeting serves not only as a source of potentially valuable information for NRC to evaluate a 2.206 petition, but also affords the petitioner substantive involvement in the review and decision-making process through direct discussions with NRC and the licensee. Such a meeting will be held whenever the staff believes that it would be beneficial to the review of the petition. Note that the meeting can be offered at any time during NRC's review of a petition and is open to public observation.

Director's Decision

The NRC official response to a 2.206 petition is a written decision by the director of the appropriate office that addresses the concerns raised in the petition. The agency's goal is to issue a proposed decision for comment within 120 days from the date of the acknowledgment letter. However, additional time may be needed to conduct an investigation, complete an inspection, or analyze particularly complex technical issues. If the goal is not met, the NRC staff will promptly inform the petitioner of a schedule change.

The director's decision includes the professional staff's evaluation of all pertinent information from the petition, correspondence with the petitioner and the licensee, information from any meeting, results of any investigation or inspection, and any other documents related to petition issues. Following resolution of any comments received on the proposed decision, the director's decision is provided to the petitioner and the licensee, and is posted to NRC's web site and made available in the PDR. A notice of availability is published in the *Federal Register*.

Director's decisions may be issued as follows:

- A decision granting a petition, in full, explains the basis for the decision and grants the action requested in the petition (e.g., NRC issuing an order to modify, suspend, or revoke a license).
- A decision denying a petition, in full, provides the reason for the denial and discusses all matters raised in the petition.
- A decision granting a petition, in part, in cases where the NRC decides not to grant the action requested, but takes other appropriate enforcement action or directs the licensee to take certain actions that address the identified safety concerns.
- A partial director's decision may be issued by the NRC in cases where some of the issues associated with the petition can be completed promptly but significant schedule delays are anticipated before resolution of the entire petition. A final director's decision is issued at the conclusion of the effort.
- The Commission will not entertain requests for review of a director's decision. However, on its own, it may review a decision within 25 calendar days.

NRC Management Directive 8.11, "Review Process for 10 CFR 2.206 Petitions," contains more detailed information on citizen petitions. For a free copy of the directive, write to the Superintendent of Documents, U.S. Government Printing Office, P.O. Box 37082, Washington, DC 20013-7082, or call 202-512-1800.

Electronic Access

Those parts of the monthly status report on 2.206 petitions that are not of a sensitive nature, as well as recently issued director's decisions, and Management Directive 8.11, are placed on the NRC's web site at <http://www.nrc.gov/NRC/PUBLIC/2206/index.html> and in the agency's Public Document Room.

Other Processes for Public Involvement

In addition to the 2.206 petition process, NRC has several other ways that permit the public to express concerns on matters related to the NRC's regulatory activities.

- The NRC's *allegation process* affords individuals who raise safety concerns a degree of protection of their identity.
- Under the provisions of 10 CFR 2.802, NRC provides an opportunity for the public to petition the agency for a rulemaking.
- The NRC's *licensing process* offers members of the public, who are specifically affected by a licensing action, an opportunity to formally participate in licensing proceedings. This process applies not only to the initial licensing actions but also to license amendments and other activities such as decommissioning and license renewals.
- For major regulatory actions involving preparation of environmental impact statements, NRC offers separate opportunities for public participation in its *environmental proceedings*.
- The public can attend a number of *meetings* including open Commission and staff meetings, periodic media briefings by Regional Administrators, and special meetings held near affected facilities to inform local communities and respond to their questions.

More information on these activities can be found in NRC's pamphlet entitled, "Public Involvement in the Nuclear Regulatory Process," NUREG/BR-0215.

**Office of Public Affairs
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
Telephone 301-415-8200 or
1-800-368-5642**
