May 13, 2005

LICENSEE: PSEG NUCLEAR, LLC.

FACILITY: HOPE CREEK GENERATING STATION

SUBJECT: SUMMARY OF MARCH 15, 2005, CATEGORY 1 MEETING WITH PSEG NUCLEAR LLC, REGARDING FUTURE APPLICATION FOR EXTENDED POWER UPRATE OF HOPE CREEK GENERATING STATION

On March 15, 2005, the Nuclear Regulatory Commission (NRC) staff met with representatives of PSEG Nuclear, LLC (PSEG or the licensee), the licensee for the Hope Creek Nuclear Generating Station (Hope Creek), and General Electric (GE), the licensee's contractor. The purpose of the meeting was to discuss NRC staff expectations regarding content quality of applications for an extended power uprate (EPU). PSEG has announced its intention to seek NRC approval for an EPU for the Hope Creek facility. The March 15, 2005, discussion between the NRC staff and PSEG was intended to ensure that any future EPU application for Hope Creek provides a sufficient level of depth and breadth for the NRC staff to complete its review with only limited need for additional information from the licensee.

Topics discussed are listed in Enclosure 1. A copy of the licensee's presentation is provided in Enclosure 2. Following the licensee's presentation, open discussion was held regarding some of the agenda topics. Items discussed that are not covered by material in Enclosure 2 are summarized below, grouped by topic area:

Use of Review Standard, RS-001

The NRC staff noted that, per RS-001, applications should:

- follow the RS-001 template to the extent possible,
- identify all modifications or changes that require NRC approval in order to implement EPU, including those associated with operator actions and the plant licensing basis,
- provide a mark-up of the template regulatory evaluation section,
- list balance-of-plant areas that are not affected by the EPU and provide a sufficiently detailed explanation of why they are not affected,

Reactor Systems Topics

Large Transient Testing

The NRC staff indicated that PSEG should provide justification in their application if they chose not to perform large transient testing. The NRC staff stated all of the transients in Standard Review Plan 14.2.1 must be addressed if the topical report NEDC-33066P is not going to be used. The NRC staff asked if a quantitative risk versus benefit evaluation had been performed. The licensee responded that their risk versus benefit evaluation is qualitative.

Codes and Methods

In response to a question from the licensee regarding the acceptability of the GE Interim Process, the NRC staff noted that the staff's evaluation of the interim process is still in its initial stages. Hence, an application that merely states that the applicant will follow that process will have more uncertainty associated with its review schedule and ultimate approval. The staff expressed a preference that applications provide specific responses to the questions that were posed to the Vermont Yankee Nuclear Power Station in requests for additional information rather than merely commit to follow the still-to-be-reviewed GE process.

Mechanical and Materials Engineering Topics

Flow Induced Vibration (e.g., steam dryers and recirculation piping)

Some of the issues raised by the NRC staff concerning flow induced vibration were:

- Potential failures and effects modes should be analyzed based on Quad Cities experience and Exelon's extent of condition review.
- If PSEG decided not to use risk-informed inservice inspection, then vibration is another degradation mechanism that should be addressed.

The NRC staff indicated that they are specifically interested in reviewing the forcing function used in the flow-induced vibration analysis.

Structural Evaluation of Reactor Coolant Pressure Boundary (RCPB)

The NRC staff stated that the application should identify existing flaws with respect to RCPB, and provide an evaluation of how an EPU will affect the flaws, and provide a sufficient justification of the licensee's conclusion that the plant can be operated safely at EPU conditions.

Probabilistic Risk Assessment (PRA) Topics

PRA Scope and Quality

The NRC staff pointed out that RS-001 included Attachment 1 to Matrix 13, which covered the expected scope of the risk assessment. The staff suggested that PSEG examine the recent docketed Beaver Valley material on EPU. In addition, the staff stated that Attachment 1 includes risk from internal and external events, at power and shutdown, and PRA quality considerations.

Environmental Topics

Environmental Assessment Scope and Quality

The NRC staff stated that the application should address how an EPU will affect the electric shock potential with respect to transmission facility. In addition, the environmental impacts associated with the fuel cycle and transportation impacts and postulated accident doses should be evaluated. Additionally, the NRC staff indicated that a biological assessment should be provided if the last environmental report was written before the National Environmental Policy Act was implemented.

A list of meeting attendees is provided as Enclosure 3.

Please direct any inquiries to me at 301-415-1427 or dxc1@nrc.gov.

/RA/

Daniel S. Collins, Sr. Project Manager, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-354

Enclosures: 1. Agenda
2. PSEG Presentation Slides
3. Attendees

cc w/encls: See next page

AGENDA

MEETING BETWEEN THE NUCLEAR REGULATORY COMMISSION AND

PSEG NUCLEAR, LLC, REGARDING PENDING APPLICATION FOR EXTENDED POWER

UPRATE FOR HOPE CREEK GENERATING STATION

Opening Remarks and Introductions	1:00 - 1:05
General Topics Use of RS-001	1:05 - 1:25
Reactor Systems Topics MELLLA/MELLLA Plus Mixed Core Analyses Large Transient Testing	1:25 - 1:45
Containment Topics Containment Overpressure Considerations	1:45 - 2:05
Break	5 minutes
Mechanical and Materials Engineering Topics Flow Induced Vibration (e.g., steam dryers and recirculation piping) Structural Evaluation of Reactor Coolant Pressure Boundary	2:10 - 2:30
Probabilistic Risk Assessment Topics PRA Scope and Quality	2:30 - 2:50
Environmental Topics Environmental Assessment Scope and Quality	2:50 - 3:10
Break	10 minutes
Open Discussion	3:20 - 3:40
Questions and Answers	3:40 - 3:55
Summary	3:55 - 4:00

MARCH 15, 2005, HOPE CREEK EPU PRE-APPLICATION MEETING ATTENDEES

NRC

F. Akstulewicz	NRR/DSSA/SRXB
R. Caruso	ACRS
D. Collins	NRR/DLPM/PDI-2
L. Fields	NRR/DRIP/RLEP
C. Holden	NRR/DLPM/PDI
S. Laur	NRR/DSSA/SPSB
R. Lobel*	NRR/DSSA/SPSB
L. Marsh	NRR/DLPM
G. Miller	NRR/DLPM/PDI-2
T. Owusu	NRR/DLPM/PDI-2
P. Patnaik	NRR/DE/EMCB
W. Poertner*	NRR/DE/EMEB
D. Roberts*	NRR/DLPM/PDI-2
W. Ruland	NRR/DLPM/PDIII
T. Scarbrough*	NRR/DE/EMEB
J. Stang*	NRR/DLPM/PDIII
J. Tatum	NRR/DSSA/SPLB
S. Unikewicz*	NRR/DE/EMEB
C. Wu*	NRR/DEEMEB
S. Wu	NRR/DSSA/SRXB

*part-time attendance

PSEG

T. DelGaizo	S. Mannon
P. Duke	D. McHugh
J. Ferrante	R. Moore, Sr.
W. He	D. Notigan
K. Hutko	F. Safin

GE

P. Tran
E. Schrull

NJ (BNE)

D. Zannoni

PPL Susquehanna

J. Bartos
J. Geosits
M. Gorski
J. Oddo

Enclosure 3

Hope Creek Generating Station

cc:

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A list of meeting attendees is provided as Enclosure 3.

Please direct any inquiries to me at 301-415-1427 or dxc1@nrc.gov.

/RA/

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Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

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Enclosures: 1. Agenda
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cc w/encls: See next page

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OPA	GMatakas, RI	JJolicoeur, EDO RI	DScrenci, RI ORA	TOwusu
TMensah	OGC	ACRS	DCollins	

Meeting Summary: ML050950439 Package: ML050960141 Slides: ML050960117

OFFICE	PDI-2/GE	PDI-2/PM	PDI-2/LA	SPLB/	SRXB/SC
NAME	TOwusu	DCollins	CRaynor	JTatum	FAkstulewicz
DATE	4/15/05	4/18/05	4/15/05	4/19/05	4/22/05

OFFICE	EMEB	EMCB	SPSB	RLEP	PDI-2/SC
NAME	TScarbrough	PPatnaik	SLaur	LFields	DRoberts
DATE	4/20/05	4/20/05	4/20/05	4/27/05	5/12/05

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