



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

March 2, 2005

Mr. William Levis
Senior Vice President and Chief Nuclear Officer
PSEG Nuclear LLC - N09
P. O. Box 236
Hancocks Bridge, NJ 08038

SUBJECT: ANNUAL ASSESSMENT LETTER - SALEM NUCLEAR GENERATING
STATION (REPORT 05000272/2005001 AND 05000311/2005001)

Dear Mr. Levis:

On February 7, 2005, the NRC staff completed its end-of-cycle plant performance assessment for the Salem Nuclear Generating Station. The end-of-cycle review for Salem involved the participation of the reactor technical divisions in evaluating performance indicators (PIs) for the most recent quarter and inspection results for the period from January 1 through December 31, 2004. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility so that you will have an opportunity to prepare for these inspections and to inform us of any planned inspections that may conflict with your plant activities. Overall, Salem Units 1 and 2 operated in a manner that preserved public health and safety and fully met all cornerstone objectives.

This performance review and enclosed inspection plan do not include physical protection information. A separate end-of-cycle performance review letter, designated and marked as "Exempt from Public Disclosure in accordance with 10 CFR 2.390," will include the physical protection review and resultant inspection plan.

Plant performance at Salem Unit 1 for the most recent quarter, as well as for the first three quarters of the assessment cycle, was within the Regulatory Response Column of the NRC Action Matrix, based on an inspection finding in the Mitigating System Cornerstone being classified as having low to moderate safety significance (White) and all PIs indicating performance at a level requiring no additional NRC oversight (Green). The White inspection finding involved inadequate corrective actions which resulted in an emergency diesel generator turbocharger failure in September 2002. Completion of the initial and supplemental inspections into the issue were delayed to allow PSEG time to complete their root cause evaluation and implement corrective actions. As described in an NRC supplemental inspection report dated January 30, 2004 [ADAMS Ref. ML040330012], the staff kept this finding open beyond four quarters pending completion of PSEG's extent of condition evaluation and until additional NRC inspection confirmed that final corrective actions had been implemented. The staff completed a follow-up supplemental inspection, documented in an inspection report dated November 8, 2004 [ADAMS Ref. ML043150524], and concluded that PSEG's extent of condition review and corrective actions were adequate to close the White finding.

Salem Unit 2 performance for the most recent quarter, as well as for the first three quarters of the assessment cycle, was within the Licensee Response Column of the NRC's Action Matrix, based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green). However, one PI (Unplanned Scrams per 7000 Critical Hours) is still under evaluation by the NRC staff to resolve applicability of a manual reactor trip that occurred during physics testing on November 23, 2003. A separate assessment follow-up letter may be issued, as appropriate, following completion of the staff's review.

The NRC's last four assessment letters [dated March 3, 2003, August 27, 2003, March 3, 2004, and August 30, 2004; ADAMS Refs. ML030620772, ML032390424, ML040630856, and ML042440233] documented a substantive cross-cutting issue in the area of problem identification and resolution (PI&R). The staff determined that the cross-cutting issue continued through calendar year 2004 based on the continuation of inspection findings and documented shortcomings within the PI&R area. During this assessment period, there were 14 inspection findings that were attributable, at least in part, to weaknesses in problem identification, problem evaluation and effectiveness of corrective actions. A few examples included PSEG personnel not identifying a degraded condition with a service water intake structure trash rack which ultimately led to the unavailability of a service water pump train; an inadequate evaluation of a feedwater regulating valve controller malfunction which led to a repeat reactor trip; and ineffective corrective actions for an unreliable control system which resulted in repetitive failures of the gas turbine generator. Based on these findings, the staff continues the substantive cross-cutting issue in the area of PI&R.

In addition, as discussed in the mid-cycle assessment letter dated August 30, 2004 [ADAMS Ref. ML042440233], the staff documented a substantive cross-cutting issue in the area of safety conscious work environment (SCWE) based on the results of the NRC's review of the work environment. The NRC conducted several management meetings with PSEG throughout the year to further monitor and evaluate the state of the work environment at the station. While we recognize that PSEG has taken significant steps to evaluate the station's work environment and initiated actions to begin addressing deep-seated causes, it is too early to assess whether or not the work environment at the station is significantly improving. As a result, the staff determined that the SCWE cross-cutting issue will continue, and the NRC will continue to monitor your progress.

The NRC plans to conduct Reactor Oversight Process baseline inspections at the Salem units. Further, in order to provide an appropriate level of NRC oversight for the Salem Units, in view of the substantive cross-cutting issue in SCWE and the longstanding cross-cutting issue in PI&R, the NRC's Executive Director for Operations (EDO) approved a deviation from the NRC's Action Matrix on August 23, 2004 [ADAMS Ref. ML042290139]. This deviation authorized the staff to provide a greater level of oversight for the Salem station than would typically be called for by the Regulatory Response Column of the Action Matrix including: (1) conduct of periodic management meetings and site visits; (2) elevation of the level of NRC management involvement in meetings, site visits, and correspondence; (3) establishment of an internal NRC coordination team, involving regional and headquarters experts in reactor oversight, SCWE and related performance attributes, to coordinate NRC review efforts and assist in evaluation of licensee self-assessment efforts; (4) review of PSEG's detailed improvement plans to identify SCWE and related performance attributes for further NRC inspection; and (5) enhancement of

existing baseline inspections by adjusting inspection scope, as necessary, to verify the effectiveness of licensee improvement efforts in these areas. The enhanced regulatory oversight established by the deviation memorandum will be used to monitor your progress in addressing the PI&R and SCWE cross-cutting issues. The NRC plans to continue with this heightened oversight until PSEG has concluded that substantial, sustainable progress has been made; and the NRC has completed a review, the results of which confirm PSEG's assessment results.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through September 30, 2006. In addition to the baseline inspection activities specified by the Reactor Oversight Process, the enclosed plan includes inspections of the reactor vessel head replacement activities scheduled for both Salem units; augmentation of existing inspections per the deviation memorandum; and additional inspections of the employee concerns program and SCWE improvement initiatives. The inspection plan is provided to minimize the resource impact on your staff and to allow for scheduling conflicts and personnel availability to be resolved in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last nine months of the inspection plan are tentative and may be revised at the mid-cycle review meeting.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

If circumstances arise which cause us to change this inspection plan, we will contact you to discuss the change as soon as possible. Please contact Mr. Eugene Cobey at 610-337-5171 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/RA/

Samuel J. Collins
Regional Administrator

Docket Nos. 50-272 50-311
License Nos. DPR-70, DPR-75

Enclosure: Salem Units 1 and 2 Inspection/ Activity Plan

cc w/encl:

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Institute of Nuclear Power Operations (INPO)

Mr. William Levis

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SISP Review Complete: EWC (Reviewer's Initials)

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Salem
Inspection / Activity Plan
03/01/2005 - 09/30/2006

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	71007 - SALEM U2 RX HEAD REPLACEMENT		2			
2	IP 71007	Reactor Vessel Head Replacement Inspection		01/31/2005	03/31/2005	Other Routine
	71152B - PROBLEM IDENTIFICATION AND RESOLUTION		7			
1, 2	IP 71152B	Identification and Resolution of Problems		02/28/2005	03/04/2005	Baseline Inspections
1, 2	IP 71152B	Identification and Resolution of Problems		03/14/2005	03/18/2005	Baseline Inspections
	OA - UNIT 2 RX HEAD REPLACE TRANSPORTATION		1			
2	IP 71007	Reactor Vessel Head Replacement Inspection		03/14/2005	03/17/2005	Other Routine
	7111108P - INSERVICE INSPECTION - U2		1			
2	IP 2515/160	Pzr Pene Nozzles & Strm Space Piping Connections in U.S. PWRs [NRC Bulletin 2004-01]		04/04/2005	04/08/2005	Safety Issues
2	IP 7111108P	Inservice Inspection Activities - PWR		04/04/2005	04/08/2005	Baseline Inspections
	71114 - EP PROGRAM INSP & PI VERIFICATION		1			
1, 2	IP 7111402	Alert and Notification System Testing		04/03/2005	04/07/2005	Baseline Inspections
1, 2	IP 7111403	Emergency Response Organization Augmentation Testing		04/03/2005	04/07/2005	Baseline Inspections
1, 2	IP 7111404	Emergency Action Level and Emergency Plan Changes		04/03/2005	04/07/2005	Baseline Inspections
1, 2	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies		04/03/2005	04/07/2005	Baseline Inspections
1, 2	IP 71151	Performance Indicator Verification		04/03/2005	04/07/2005	Baseline Inspections
	7111108P - INSERVICE INSPECTION - U2		1			
2	IP 7111108P	Inservice Inspection Activities - PWR		04/11/2005	04/15/2005	Baseline Inspections
	71121 - OCC RAD SAFETY		1			
2	IP 71007	Reactor Vessel Head Replacement Inspection		04/11/2005	04/15/2005	Other Routine
1, 2	IP 7112101	Access Control to Radiologically Significant Areas		04/11/2005	04/15/2005	Baseline Inspections
1, 2	IP 7112102	ALARA Planning and Controls		04/11/2005	04/15/2005	Baseline Inspections
1, 2	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		04/11/2005	04/15/2005	Baseline Inspections
	OA - U2 RVCH POST-INSTALL VERIF TESTING		1			
2	IP 71007	Reactor Vessel Head Replacement Inspection		04/27/2005	05/04/2005	Other Routine
	ECP - EMPLOYEE CONCERNS PROGRAM		2			
1, 2	IP 40001	Resolution Of Employee Concerns		05/16/2005	05/20/2005	Other Routine
	7112203 - PUB RAD SAFETY - REMF		1			
1, 2	IP 7112203	Radiological Environmental Monitoring Program		06/20/2005	06/24/2005	Baseline Inspections
	SCWE - SCWE TEAM INSPECTION		5			
1, 2	IP 71152	Identification and Resolution of Problems		06/20/2005	06/24/2005	Baseline Inspections
	7111111B - LO REQUAL INSPECTION		3			
1, 2	IP 7111111B	Licensed Operator Requalification Program		09/12/2005	09/16/2005	Baseline Inspections
1, 2	IP 7111111B	Licensed Operator Requalification Program		09/12/2005	09/23/2005	Baseline Inspections

This report does not include INPO and OUTAGE activities.

This report shows only on-site and announced inspection procedures.

Salem
Inspection / Activity Plan
03/01/2005 - 09/30/2006

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	71007 - SALEM U1 RX HEAD REPLACEMENT		1			
1	IP 71007	Reactor Vessel Head Replacement Inspection		09/12/2005	11/30/2005	Other Routine
	7111108P - INSERVICE INSPECTION - U1		2			
1	IP 7111108P	Inservice Inspection Activities - PWR		10/17/2005	10/21/2005	Baseline Inspections
	71121 - OCC RAD SAFETY		1			
1	IP 71007	Reactor Vessel Head Replacement Inspection		10/17/2005	10/21/2005	Other Routine
1, 2	IP 7112101	Access Control to Radiologically Significant Areas		10/17/2005	10/21/2005	Baseline Inspections
1, 2	IP 7112102	ALARA Planning and Controls		10/17/2005	10/21/2005	Baseline Inspections
1, 2	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		10/17/2005	10/21/2005	Baseline Inspections
1, 2	IP 71151	Performance Indicator Verification		10/17/2005	10/21/2005	Baseline Inspections
	1/9EXAM - OPERATOR LICENSING INITIAL EXAMS		1			
1	U01543	SALEM, UNIT 1&2 INITIAL EXAM (7/11-15/05)		12/12/2005	12/16/2005	Not Applicable
1	U01543	SALEM, UNIT 1&2 INITIAL EXAM (7/11-15/05)		01/09/2006	01/13/2006	Not Applicable
	7112202 - PUB RAD SAFETY - RADWASTE		1			
1, 2	IP 7112202	Radioactive Material Processing and Transportation		12/05/2005	12/16/2005	Baseline Inspections
1, 2	IP 71151	Performance Indicator Verification		12/05/2005	12/16/2005	Baseline Inspections
	7111112B - MAINTENANCE RULE		1			
1, 2	IP 7111112B	Maintenance Effectiveness		01/09/2006	01/13/2006	Baseline Inspections
	71121 - OCC RAD SAFETY		1			
1, 2	IP 7112101	Access Control to Radiologically Significant Areas		01/09/2006	01/13/2006	Baseline Inspections
1, 2	IP 7112102	ALARA Planning and Controls		01/09/2006	01/13/2006	Baseline Inspections
1, 2	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		01/09/2006	01/13/2006	Baseline Inspections
	TRI FIRE - TRIENNIAL FIRE PROTECTION INSPECTION		3			
1, 2	IP 7111105T	Fire Protection		01/23/2006	01/27/2006	Baseline Inspections
1, 2	IP 7111105T	Fire Protection		02/06/2006	02/10/2006	Baseline Inspections
	7112201 - PUB RAD SAFETY - RETS		1			
1, 2	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		02/06/2006	02/10/2006	Baseline Inspections
	SSDI - SSDI		6			
1, 2	IP 7111121	Safety System Design and Performance Capability		03/06/2006	03/10/2006	Baseline Inspections
1, 2	IP 7111121	Safety System Design and Performance Capability		03/20/2006	03/24/2006	Baseline Inspections
	7111401 - EXERCISE & EP PI VERIFICATION		1			
1, 2	IP 7111401	Exercise Evaluation		03/20/2006	03/24/2006	Baseline Inspections
1, 2	IP 71151	Performance Indicator Verification		03/20/2006	03/24/2006	Baseline Inspections
	71121 - OCC RAD SAFETY		1			
1, 2	IP 7112101	Access Control to Radiologically Significant Areas		05/08/2006	05/12/2006	Baseline Inspections

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03/01/2005 - 09/30/2006

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	71121	- OCC RAD SAFETY	1			
1, 2	IP 7112102	ALARA Planning and Controls		05/08/2006	05/12/2006	Baseline Inspections
1, 2	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		05/08/2006	05/12/2006	Baseline Inspections
	8/28+EXM	- OPERATOR LICENSING INITIAL EXAMS	3			
1	U01590	SALEM INITIAL EXAM (1/06)		07/31/2006	08/04/2006	Not Applicable
1	U01590	SALEM INITIAL EXAM (1/06)		08/28/2006	09/01/2006	Not Applicable
	7111107B	- HEAT SINK	2			
1, 2	IP 7111107B	Heat Sink Performance		08/14/2006	08/18/2006	Baseline Inspections