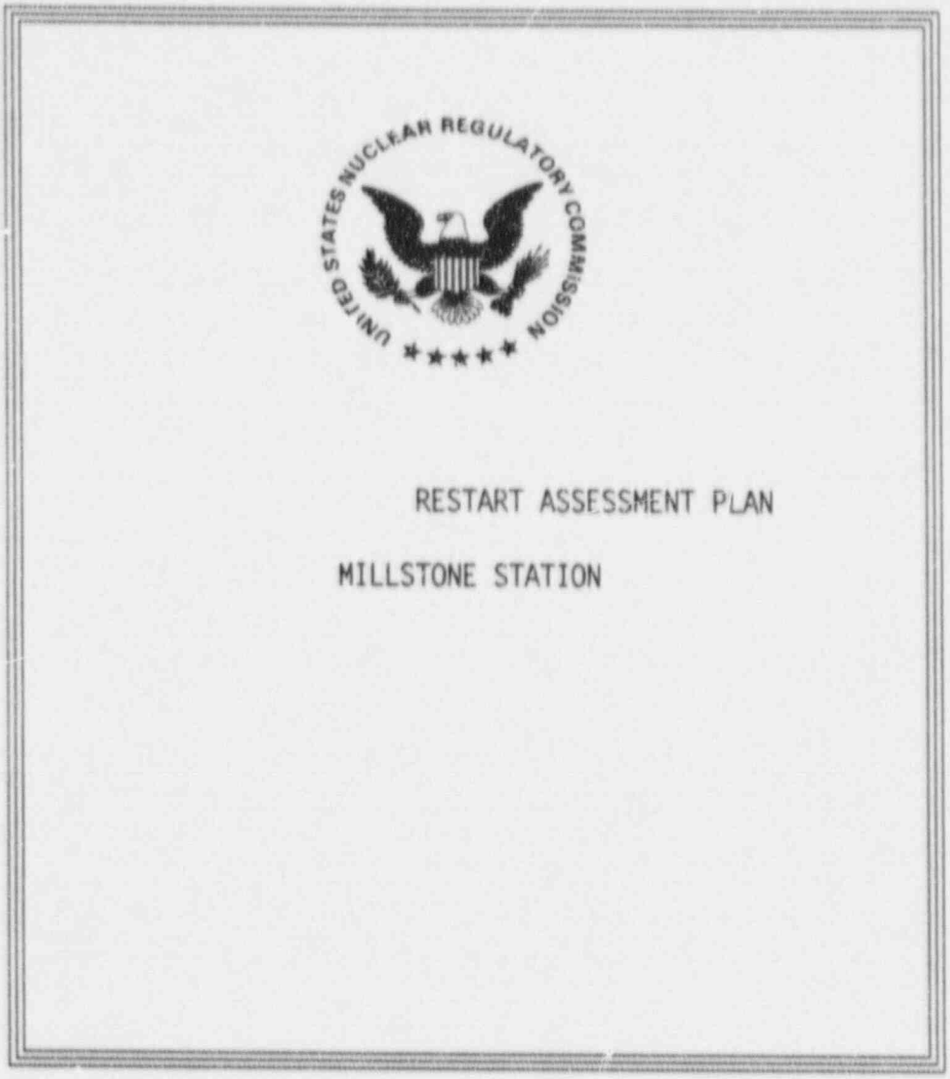

RESTART ASSESSMENT PLAN

MILLSTONE STATION

APPROVED:----------

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DATE: JULY 21, 1997

MILLSTONE
RESTART ASSESSMENT PLAN

1.0 BACKGROUND

The three Millstone units are shut down to formulate responses to a series of 10 CFR 50.54 (f) letters requiring them to affirm their compliance with the conditions of each unit's license and the regulations. The NRC performed a series of inspections at Units 2 and 3 with a 20-person Special Inspection Team (SIT) to ascertain the extent of their compliance. Currently, the results of those inspections are under assessment by the team and NRC management. The licensee initially focussed on Unit 3 as the lead plant for restart. However, as a result of a licensee reorganization which occurred on October 1, 1996, each Millstone unit was assigned a recovery manager who was an executive on temporary loan from another nuclear utility. Resources originally assigned to Unit 3 from the other units were returned to their respective units. Each unit has been tasked with establishing their own restart plan and whichever unit is ready will apply to restart first. Hence this restart assessment plan has been expanded to include Manual Chapter (MC)-0350 evaluations (see paragraph 3.0) for all three units.

On June 28, 1996, the Executive Director for Operations (EDO) issued a letter to the licensee that stated the Commission had decided to make the three Millstone units a Category 3 on the Watch List and would vote on the restart of the Millstone units. It is the intent to implement the appropriate aspects of NRC Manual Chapter 0350, "Staff Guidelines for Restart Approval" for the restart of all three units. The NRC will schedule and implement its inspection program after the licensee has indicated that the individual activities necessary for restart are complete and ready for inspection.

The NRC has been dealing with Northeast Utilities on broader performance issues which go beyond the 10 CFR 50.54(f) concerns. These broader concerns are considered contributory causes for the current poor performance, which the 10 CFR 50.54(f) issues are a subset. These issues have been formalized by the licensee in a program titled "Improving Station Performance" (ISP) and are topics that will be addressed by the licensee and reviewed by the NRC Millstone Restart Assessment Panel. A meeting was conducted on April 30, 1996, and disclosed that the licensee was not adequately managing the program or tracking progress.

The salient concerns embodied in the ISP include leadership, communications (employee concerns), the corrective action program, procedural adherence and procedure upgrades, work planning and control, and operational enhancements. The NRC Restart Assessment Plan will focus on the broader issues of the ISP and licensee self-assessments and management oversight, recognizing the necessity to ensure adequate closure of the 10 CFR 50.54(f) process. The NRC plan for inspection of the Improving Station Performance issues is discussed in more detail in Section 3 of this plan.

On November 3, 1996, the agency established the Special Projects Office (SPO) to consolidate NRC efforts under a single Senior Executive Service (SES) manager, who reports to the Director of the Office of Nuclear Reactor Regulation (NRR). The Director, SPO assumed the authority and responsibilities of the Regional Administrator and the Associate Director of Projects.

2.0 10 CFR 50.54(f) Activities

Each Millstone unit has been requested to submit information describing actions taken to ensure that future operations will be conducted in accordance with the terms and conditions of the operating license, the Commission's regulations, and the Final Safety Analysis Report. In a May 21, 1996, letter, the NRC requested Northeast Utilities (NU) to provide for each unit its plan for completing the licensing bases reviews.

To aid in NRC understanding of how deficiencies were identified and dispositioned, the NRC's May 21, 1996, letter also requested that NU provide for each Millstone unit a comprehensive list of design and configuration deficiencies and information related to how each deficiency was identified and will be dispositioned.

On August 14, 1996, the NRC issued a Confirmatory Order establishing an Independent Corrective Action Verification Program (ICAVP). The independent effort will verify the adequacy of NU's efforts to establish adequate design bases and design controls, including translation of the design bases into operating procedures and maintenance and testing practices, verification of system performance, and implementation of modifications since issuance of the initial facility operating licenses. The NRC oversight of the ICAVP and activities will be in addition to the activities described in this Restart Assessment Plan. The results from this program will be incorporated into this restart plan and considered a significant part of the decision regarding recommended restart. The deficiencies found by the licensee as a result of the 50.54(f) letters will be evaluated by the Millstone Restart Assessment Panel to identify restart issues.

3.0 MC 0350 Process

Millstone Unit 1 entered a routine refueling outage on November 3, 1995. On December 13, 1995, the NRC sent a 10 CFR 50.54(f) letter requiring the licensee to certify compliance with the regulatory requirements before restarting the unit. At the January 1996 Senior Management Meeting, the site was placed on the "Watch List" for various reasons, including a concern for regulatory compliance. Subsequently, Millstone Units 2 and 3 were sent similar letters which required responses before restart.

The NRC Inspection Manual, Manual Chapter (MC) –0350, "Staff Guidelines For

Restart Approval", provides guidelines and a list of tasks and activities that must be considered before a plant that has been shutdown for cause can restart. Because of NRC concerns relating to the licensee's management effectiveness, the appropriate aspects of MC 0350 will be applied to the restart of Units 1, 2, and 3 to ensure applicable requirements have been met (Enclosure (4).

The Director, SPO, in coordination with the Deputy Executive Director for Regulatory Programs, and the Director of NRR, will make a recommendation regarding restart. NRR and the SPO will inform the Commission of the staff's and licensee's restart activities through Commission papers, or communications to the EDO. The Commission will then vote on whether to approve the restart of each Millstone unit.

3.1 SPECIAL PROJECTS OFFICE

The SPO was created on November 3, 1996, to oversee the restart of the Millstone units. The plan was to consolidate the NRC resources devoted to the restart efforts under one SES manager. The office is organized into three primary elements, licensing, inspection, and independent corrective action oversight. The Licensing Branch will administer the typical licensing actions performed in NRR; the Inspection Branch will implement the inspection programs, normally managed from the region, and the Independent Corrective Action Verification Program Oversight Branch will oversee the licensee's licensing and design bases review process.

Within the SPO, the Restart Assessment Panel (RAP) will meet to assess the licensee's performance and their progress in completing the designated restart activities. The RAP is composed of the Director, SPO (chairman); the Deputy Directors of Licensing, Inspections, and Independent Corrective Actions Verification Program Oversight; the Project Managers for the three Millstone units; the Inspection Branch Chief, the Senior Resident Inspectors for the three Millstone units, and the appointed Division of Reactor Safety representative. The function of the Millstone RAP is described in MC-0350.

3.2 MILLSTONE OPERATIONAL READINESS PLAN

On July 2, 1996, NU submitted the Unit 3 Operational Readiness Plan, which was discussed at the July 24, 1996, meeting and updated at the August 19, 1996, meeting. However, the licensee has replaced all of the line managers (President, Vice Presidents, and two of the three unit directors) in the recent past. With this replacement, the submitted plans for Unit 3 and the proposed plans for Units 1 and 2 are being changed substantially. The RAP will review these plans and hold periodic meetings with NU, open to the public, to discuss the schedule for implementation and coordination of NRC restart activities.

The deficiency lists associated with the restart plans for each unit, which will be

updated periodically by the licensee, includes restart and deferred items, and will be audited by the NRC to verify the acceptability of the criteria used to defer items from the restart list.

3.3 CORRECTIVE ACTION PROGRAM

The NU corrective action program has been weak in ensuring comprehensive and effective corrective actions. There are many instances of narrowly focused corrective actions that failed to embrace all aspects of the underlying problem. Additionally, the licensee has failed to follow up on corrective actions to ensure they were effective. Consequently, the RAP has determined that any restart effort should examine the current state of the licensees corrective action program. Because of the large number of Adverse Condition Reports (ACR) being identified by the licensee's staff, the resident and regional inspection staff will concentrate on issues for each unit identified by the ACR process and audit the licensees corrective actions for completeness. The staff is periodically selecting ACRs for review, based on the licensee's assigned level of importance, or their risk significance, as perceived by the resident staff. Additionally, other ACR's will be examined to provide a spectrum of safety significant and lessor risk issues. These selected ACRs will be added to the SIL for each unit, which are Enclosures 1, 2, and 3 to this plan. The intent is to primarily assess the corrective action program while dealing with the safety significant technical issues. Examination of the corrective action program needs to review the Action Requests (AR) from the Action Item Tracking and Trending System (AITTS) program, which is an extension of the ACR process, and commitments regarding violations and inspection items. Further, a significant input to assessing the licensee's corrective action program is derived from the normal inspection program where valuable insights regarding the effectiveness of corrective actions are routinely collected from the technical safety inspections.

Additionally, the NRC Independent Corrective Action Verification Oversight Branch will assess the licensee's corrective actions for degraded and non-conforming conditions. Finally, the Operational Safety Team Inspection (OSTI) will audit portions of the corrective action process during the course of its activities.

Demonstration of improvements in the process will be judged by the completeness of the licensee's corrective actions for each of the inspected ACR's. There must be a high ratio of successfully completed ACR's to the total population inspected. There should only be minor comments regarding the processing, evaluation, directed corrective actions and closure of an issue.

3.4 WORK PLANNING AND CONTROLS (C.4.)[1]

Work planning and controls are other areas that the licensee has shown a weakness. The ability to plan, control, and complete work is fundamental to achieving adequate corrective actions. Effective work planning and controls are prerequisites for reducing and managing backlogs. Weak work planning and control was demonstrated during the Unit 2 outage, wherein, tagging boundary violations resulted in an extensive effort by the licensee to correct. Work control and planning were also issues at Unit 1, which resulted in a management meeting.

There will be a complete review of the Automated Work Order (AWO) process by the resident or regional staffs. The automated work order process is an integral part of the work planning and control system and is instrumental in establishing the scope of the work, providing the appropriate procedures, and establishing the tagging boundaries. Consequently, the Unit 1 resident staff has been directed to use the available initiative inspection hours to do a comprehensive inspection of the AWO process, which is a site-wide process.

The OSTI will assess the engineering and maintenance backlogs during its operational readiness inspection. The OSTI will determine if there are safety significant issues that must be resolved before restart.

3.5 PROCEDURE UPGRADE PROGRAM (C.3.3.e)

The quality and adherence to procedures has been a chronic problem at the Millstone site. The issue was an element in "Improving Station Performance" and was one of the subjects of discussion at the periodic meetings between NU and the NRC. In response to NRC concerns, the licensee developed the Procedure Upgrade Program in the early 1990's to improve station procedures.

The resident inspectors will relate procedural inspection findings back to the procedural upgrade program (PUP), identifying whether the procedures reviewed during the course of an inspection have been upgraded and characterize the quality of the document. This will establish a basis for assessing the effectiveness of the licensee's PUP. The NRC staff will develop an inspection plan for examining selected portions of each unit's individual efforts.

3.6 OVERSIGHT (C.1.4.)

The licensee has identified its oversight function as deficient through self-assessments and external and internal audits and as a contributing factor in the licensee's declining performance. The report of Assessment of Past Ineffectiveness

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[1] Reference to applicable MC-0350 section

of Independent Oversight by the Yankee Atomic Electric Company (YAEC), examined the failure of Quality Assessment Services, the Independent Safety Evaluation Group, and the Nuclear Review Board (NRB) to identify the deficient FSAR control process and the radioactive waste conditions. They found that management did not support these functions adequately.

In addition, the Joint Utilities Management Association (JUMA) issued its report on July 17, 1996. One conclusion was that the quality assurance (QA) program audits, surveillances, and inspections were not effective in the implementation of their mission and resolution of identified problems. In addition, the JUMA audit found that recommendations for improving QA effectiveness identified in previous QA internal and external assessments have not been addressed.

The NRC assessment of the nuclear oversight function is addressed as part of the RAP's review of the ISP program and through insights gained from the normal inspection program. In addition, the NRC will perform a special inspection of the oversight function using the services of its Human Factors Assessment group. Late in the restart process for each unit, there will be an inspection to evaluate the effectiveness of the oversight groups and management's utilization of the oversight process. There should be positive indications that the oversight function has been made an integral part of the licensee's management team assessment process. The oversight function should result in meaningful findings, have access to line management, and provide assessments of process and program effectiveness through periodic reports. There should be evidence that the reports are forwarded to the responsible manager and that they have dealt with the contents appropriately. Oversight should be adequately staffed with qualified and experienced personnel. The audit and surveillance programs need to be clearly defined, proceduralized, and implemented with established schedules.

3.7 ENFORCEMENT

Outstanding enforcement items will be reviewed by the resident inspectors to determine if any issues require closure before plant restart. The agency is currently accumulating escalated enforcement items concerning the spent fuel pool and design bases issues which may require licensee response before recommending restart of each unit. There are also potential enforcement items that will result from the efforts of the Office of Investigations, the allegation process review group, the Office of the Inspector General, the Special Inspection Team, routine resident and regional inspection efforts, and the 10 CFR 2.026 petition process.

A Pre-decisional Enforcement Conference was held with the licensee on December 5, 1996, to discuss 64 individual apparent violations. The licensee did not contest any of the violations at the conference, and the staff is in the process of

finalizing the enforcement package. Once enforcement actions have been taken, the NRC will evaluate the licensee's corrective action to those enforcement actions which are determined to impact restart of each unit.

3.8 EMPLOYEE CONCERNS

The Millstone site has had a chronic problem in dealing effectively with employee concerns. The NRC continues to receive an inordinate quantity of allegations from the staff at the Millstone site. The current series of 10 CFR 50.54(f) letters were initiated due to NRC concerns regarding design basis issues at Millstone, as well as an allegation, and a subsequent Millstone 10 CFR 2.206 petition, dealing with the Unit 1 spent fuel pool. The NRC has issued two enforcement actions for harassment and intimidation to NU in the past three years and has a current escalated enforcement action pending.

The NRC initiated two task groups to examine the Northeast Utilities handling of employee concerns, and the recent layoffs that affected several previous allegers. The task group examined NU's handling of employee concerns and identified a number of root causes for the licensee's problems in this area. The task group also concluded that past problems and their root causes still remain. Subsequently, the NRC issued an order, dated October 24, 1996, requiring NU to establish a comprehensive program to address employee concerns, and hire an independent party to oversee the implementation of the program. The output from these two task groups and the licensee's response to the order will be reviewed for restart issues.

3.9 SIGNIFICANT ISSUES LIST

The technique to be used for the restart will be to reach agreement with the licensee on its restart issues list, have it impose controls on adding or deferring items from the list, have the resident inspectors review the list to ensure it includes issues of interest to the NRC, and have the residents review the deferred list to ensure appropriate rationales for deferral have been documented (see item B.4.3. of MC 0350). As a result of the 10 CFR 50.54(f) activities, the licensee initially determined that, for all three Millstone units, hundreds of items did not meet criteria for inclusion as a restart item. The resident inspectors, augmented by headquarters staff, are reviewing these lists periodically and confirming that the licensee is performing an adequate assessment of the discrepancies. This process will be used in the restart assessment of each unit. The RAP will determine that licensee's restart issues list includes appropriate restart items from the licensee's programs such as ACR, AR (AITTS), engineering work requests, and commitments.

The enclosed NRC Significant Issues Lists for all Millstone units (Enclosure 1, 2 and 3) contain some of the items that are being used to audit and evaluate licensee programs such as the corrective action process and significant safety/regulatory technical issues.

Restart issues will meet at least one of the following criteria:

1. Resolution of the issue is required to ensure safe operation of the facility to include satisfaction of the technical specifications or licensing basis.

2. Inspection of the issue will provide an insight to an identified programmatic deficiency such as the corrective action system.

3. Inspection of the issue will provide assessment of management effectiveness or personnel performance.

3.10 RESTART INSPECTION

Selected portions of NRC MC-93802, "Operational Safety Team Inspection," will provide the framework for a team inspection of each unit during the restart process. The procedure scope will be modified to address the pertinent issues at Millstone. The inspection will cover self-assessments by the licensee, the licensee's implementation of its startup plan, control room observations during the approach to criticality and power ascension, selected systems readiness inspection and observation of management oversight.

The resident inspectors will provide close monitoring of each unit during mode changes to ensure compliance with each unit's technical specifications and FSAR design bases.

3.11 PLANT PERFORMANCE REVIEW

On March 19, 1997, the Millstone Oversight Team conducted a Plant Performance Review (PPR). The PPR was used to identify the issues that needed to be inspected for the Millstone station. The review identified several issues that warrant NRC inspection before plant restart of the unit. The unit specific issues, as well as station wide issues identified by the PPR, are contained in the SIL for each unit as inspection items.

3.12 LICENSING ISSUES

Each Millstone unit plans to submit or has submitted licensing issues (amendments, unresolved safety questions, relief requests, etc.) which will impact the restart process. The SPO Licensing Branch will disposition each applicable issue prior to restart. The status of NRR actions concerning each issue is documented in Enclosure (5) of this plan.

Enclosures:

(1) Significant Items List - Millstone Unit 1
(2) Significant Items List - Millstone Unit 2
(3) Significant Items List - Millstone Unit 3
(4) MC-0350 - Restart Approval Checklist - All Millstone Units
(5) Licensing Amendment Requests

ENCLOSURE 1

MILLSTONE RESTART ASSESSMENT PLAN ENCLOSURE (1)

Millstone Unit 1 Significant Items List

	REFERENCE	MILLSTONE UNIT 1 INSPECTION ITEM	RESP	STATUS
1	ACR:01148	FSAR Adequacy for Restart	SPO (L)	
2	ACR:01535	While de-watering spent resin, the waste temperature in the liner raised from 90 to 310°F	DRS	
3	ORDER Hannon Report ACR:M1-96-0921 EA: 96-59 MC 0350 C.1.4.e, C.5.d, C.2.2.b	Employee Concerns Program •Senior management has created difficult working environment	SPO (L)	
4	MC 0350 C.5.e	Review enforcement and unresolved items for restart issues	SPO (I)	
5	MC 0350 C.5.f	Review allegations for restart issues	SPO(I) SPO(L)	
6		Review all operability determinations and by-pass jumpers before restart	SPO (I)	
7	LER: 96-22 URI: 92-30-2	Fatigue cycle open items	DRS	
8	MC 350 C.3.1.1; EEI: 96-05-15, 97-03-01 (02)(03); VIO: 96-09-20	Security Issues - Corrective Action	DRS	
9		Review licensee event reports for restart issues	SPO (I)	
10	ACR: 05373, M1-97-0358	Material, Equipment and Parts List (MEPL) Program	SPO(L) DRS	
11	ACR: 96-1068, 7245	RPS System •Scram solenoid pilot valve replacement	SPO (I)	
12	LER: 96-48 GL 96-01 ACR: M1-97-045	Overlap testing of RPS/ESF	DRS	

	REFERENCE	MILLSTONE UNIT 1 INSPECTION ITEM	RESP	STATUS
13	TI 2515/109 URI:94-005-02,94-005-04,95-001-01,96-005-05 LER:96-52 ACR: 03689, M1-97-0397, 0384, 6988	Motor Operated Valves (GL 89-10)	DRS	
14	ACR:M1-96-0992 LER: 96-18 VIO:95-007-02 LER: 96-42	Surveillances Program Review	SPO (I)	
15	ACR:10790 (U-3)	Control/Use of Vendor Information	DRS	
16	ACR:M1-96-0915,M1-97-0240, 0241 EEI:96-003-01 LER: 97-001 MC 0350 C.2.2.c	Radwaste recovery/configuration. •Insufficient management support for maintenance of radwaste •RW effluent isolation valve QA classification	DRS	
17	EEI: 96-09-05, 97-02-01; URI:97-02-02; 95-81-01; IR: 96-04 ACR: M1-96-0922, 7007, 13318, M1-96-0823, M1-96-1035, M1-97-0342, 0343 MC 0350 C.1.1, C.1.3, C.1.4.d, C.2.1.h, C.3.1.d	Corrective Action Program Effectiveness •Review licensee corrective action programs for effectiveness to include ACP's. •Corrective actions have been ineffective in resolving problems	SPO (I) SPO (O)	Update IR:97-02
18		Review 0737 action items for completion and adequacy	SPO (I)	
19		Review engineering backlogs for restart issues	SPO (I)	
20	ORDER MC0350 C.5.d	Implementation of CMP/ICAVP corrective actions.	SPO (O)	

	REFERENCE	MILLSTONE UNIT 1 INSPECTION ITEM	RESP	STATUS
21	ACR: 03117 VIO:95-31-03/ EA:95-177-01 ACR: M1-97- 0323, 0417, LER: 94-20-01	•Single failure can disable both trains of emergency power source-LNP lockout relay •Review LNP integrated procedure and results •LNP post testing does not meet RG 1.41 Requirements	DRS	
22	URI:94-014-01 URI:96-004-07 ACR: 04167, M1-96- 0622, 1120	SRV's • setpoint drift resolution • accelerated testing • electric lift modification adequacy • electric lift setpoints not fully evaluated	DRS	
23	ACR: 6264, 05239, M1- 96-0928, M1- 96-0936, M1- 96-0345, M1- 96-1009; IFI/VIO 94-201-03 EEI:96-04-03 MC 0350 C.2.1.g,f C.3.2.f C.5.d, VIO. 97- 02-07	Configuration Management/Design Control Process (Part of ICAVP Phase I) •Review 50.54 issues for restart issues •Unit 1 design deficiencies and issues trends •Review open DBDP items for startup issues •Review station blackout self-assessment items for startup issues •Significant differences between design bases and as-built •Field changes to plant modifications not reviewed for cause	SPO (I)/SPO (O)	
24	ACR: 03428, M1-96-0280, M1-96-0728, M1-96-0913, M1-97-0221	Review FME • FME deficiencies trend for SFP and RX cavity • Debris identified in spent fuel pool • Adverse trend identified in Unit 1 FME program • Fuel Pool foreign material and storage controls • LP-24D stuck open due to foreign material	SPO (I)	
25	ACR: 07478, 05482 LER: 95-24	Inadequate design modifications • installed wrong material (pressure rating) for LLRT connections	DRS	
26	ACR: 03822	Current CWDs do not show modifications to equipment	SPO (I)	

	REFERENCE	MILLSTONE UNIT 1 INSPECTION ITEM	RESP	STATUS
27	ACR: 06483 LER:96-31,96-17 URI:96-004-06	Fuse control program inadequate	DRS	
28	ACR: 12663	LOCA analysis does not account for instrument uncertainty during surveillance testing	DRS	
29	PPR E.1 MC 0350 C.3.3.d	Operator acceptance of degraded conditions, lack of ownership, O.D.'s accept degraded conditions, temporary mods, etc.	SPO (I)	
30	ACR:M1-96-0343,M1-96-0923 M1-96-1057; PPR E.2 EEI:96-08-01 MC 0350 C.2.1	Work Planning and Control •Audit the AWO process •Significant long standing work management weaknesses •Failure to completely implement and document recommendations of AWO task force report of 1/1995 •Troubleshooting	SPO (I)	
31	PPR E.2 VIO:96-001-02,94-031-01; MC 0350 C.4.h	Post maintenance testing/maintenance F/U inspection	SPO (I)/DRS	
32	URI:96-005-04	Rework	SPO (I)	
33	LER:96-40,96-49,96-51 IFI:96-005-06 EEI:96-08-03 URI:96-08-04, 96-08-05,97-01-04 ACR:07454, M1-96-0696, M1-97-0345, 0412, ,M1-96-0843	Seismic Issues •Seismic review seismic modifications (FWCI, A-46, 79-02/79-14, NUSOER) •Seismic II/I •Verify resolution of A-46 outliers •CRD operability •SEP Topic III-6 Close out	DRS	Update IR: 97-01

	REFERENCE	MILLSTONE UNIT 1 INSPECTION ITEM	RESP	STATUS
34	IR: 95-82 IFI:96-004-02 LER: 96-013 ACR:M1-96-646,M1-97-0040,0016,0053,0057,0058,0082,0035, M1-97-0355, 0356, 0456, 0392, URI:97-01-01	Spent Fuel Pool •SFP Cleanup •Review resolution of Spent Fuel Pool issues •Assess and disposition numerous open items in IR95-82 •Unanalyzed condition due to indeterminate boraflex degradation •Load drop analysis (Fuel)	DRS	
35		Review Reg Guide 1.97 modifications	DRS	
36	ACR:M1-96-0106	NRC Information Notices IENS have incomplete or inaccurate responses	SPO (I)	
37	ACR:M1-96-0247 URI:96-006-02	Control rod blades in spent fuel pool lifted inadvertently with tri-nuc filter	SPO (I)	Update IR:97-02
38	ACR:M1-96-0545 LER: 96-27 EEI:96-04-05	Ineffective program to monitor and control fasteners	DRS	
39	ACR:M1-96-0564	Adverse trend identified in the control of contracted services	DRS	
40	ACR:M1-96-0614	M&TE program is ineffective	SPO (I)	Update IR:97-01
41	ACR:M1-96-0716 M1-97-0188	Process for controlling distribution and use of documents (procedures) is ineffective	SPO (I)	
42	ACR:M1-93-0810	Potential deviation from tech specs when changes made to Unit 1 organizational structure	SPO (I)	
43	ACR:M1-96-0848,M1-97-0071 NU letter B16195. 2/10/97 MC 0350 C.3.1.m C.2.2.g C.2.2.h	Emergency Preparedness Program (Including Organization/Staffing/Dose Assessment Capability)	DRS	
44	ACR:M1-96-0876	Equipment Environmental Qualification (EEQ) Program	DRS	

	REFERENCE	MILLSTONE UNIT 1 INSPECTION ITEM	RESP	STATUS
45	ACR:M1-96-0638	Components in control rod drive system (suction filters and associated piping, valves and fittings) may not meet the original design requirements	DRS	
46	ACR:M1-96-0924	Insufficient personnel for key leadership programs	SPO (I)	
47	ACR:M1-96-0925 MC 0350 C.4.i	PM tasks on plant equipment not performed	SPO (I)	
48	ACR:M1-96-0926 MC 0350 C.2.1.a	Management direction insufficient for system engineering	DRS	
49	ACR:M1-06-0927 MC 0350 C.2.1	System and design engineering work management weaknesses	SPO (O)	
50	ACR:M1-96-0929 MC 0350 C.3.1.e	Training for engineering personnel not effectively implemented	SPO	
51	ACR:M1-96-0933	Improvements needed in TLD process and program	DRS	
52	ACR:M1-96-0934,M1-96-0936 IFI:96-004-16	Chemistry Issues •Adverse chemistry conditions increase potential for corrosion •Weaknesses in chemistry monitoring, trending and evaluation	DRS	
53	URI: 96-12-01 ACR:M1-96-0909,M1-96-0910 MC 0350: C.3.1.k, C.3.3.e, C.3.3.f, C.2.2.d, C.2.1.b URI:97-01-02	Procedure Adequacy/Procedure Upgrade Program • Operating procedure deficiencies hinder operators • Deviation from operations procedures during simulator transients • Verify off-normal and general operating procedures revisions/adequacy •EOP's	SPO (I)	
54	ACR:M1-96-0911	Component and system degradation during plant shutdown	SPO (I)	
55	ACR:M1-96-0912	Degraded instrument air system quality	SPO (I)	

	REFERENCE	MILLSTONE UNIT 1 INSPECTION ITEM	RESP	STATUS
56	VIO:95-007-04 EEI:97-02-05,06 ACR:9536, M1-96-0155,M1-97-0367,M1-97-0349; LER: 96-46	Appendix J resolution •Inadequate testing •Implementation of Appendix J modifications •Verify the basis for not Appendix "J" testing the ECCS suction valves •Adequacy of the basis for the shutdown cooling system classification as a closed loop system	DRS	Update IR:97-02
57	LER: 96-026, 96-012, 95-024; ACR:M1-96-1104; URI:97-01-05;EEI:97-02-11	LLRT Program Review •Feedwater system configuration not allow complete drain, accept LLRT •Containment isolation check valve fails inform LLRT •Historical LLRT results/repeat failures of MSIVs, MSIV drains, FWIVs	DRS	Update IR: 97-02
58		•Review ILRT (required due to the replacement of inboard containment isolation valves LP-14A & LP-14B)	DRS	
59	ACR:M1-96-0995, 97-0177, 97-0637 DEV:94-023-05 VIO:95-31-04-EA:95-177-02 VIO:95-44-02 EEI:96-08-02, 95-82-03 LER:96-11, 96-62	SBGT issues resolution •Implementation of a low flow isolation modification •Resolution of all outstanding issues that could affect operability (ACR 03735, 08248, 03403, 03402) •Technical Specification restriction to prevent the use of both standby gas trains when venting the drywell •Use of a dedicated operator while venting the drywell via SGTS •Draw down time criteria/testing during a LNP	DRS	
60	URI:95-31-01 ACR:7001, 8735	Verify resolution of ATWS issues, lack of LCO and turning off the ATWS system to perform battery voltage adjustments	SPO (I)	
61	LER: 96-58	Verify resolution of IPEEE walkdown issues •Determine the need for the licensee to complete the IPEEE	DRS/SPO (L)	
62	ACR:M1-97-0219,M1-97-0330	Verify implementation of setpoint changes identified by the setpoint verification program •Incorrect RPS setpoints •Yarways - 7" Error Low Low Water Level Calculation	DRS	
63		Verify HELB program completion	DRS	

	REFERENCE	MILLSTONE UNIT 1 INSPECTION ITEM	RESP	STATUS
64		Verify drywell temperature profile, PDCR completion and closeout necessary to update the plant design basis	DRS	
65	URI:93-24-04 IFI:96-001-03	Fire Protection/Appendix R Programs •Review fire detection and suppression system code compliance issues resolution •Appendix R equipment, test, maintenance program, and surveillance program	DRS	
66		Review commitment modification program for startup issues	SPO (I)	
67	ACR:M1-96-0938, 97-0795	Core reload •Error in LOCA model input data for GE11 fuel •SIL 581 •The LOCA results are expected to reduce the operating margin for MAPLHGR below the normal value (10%) •3D monicore heat baiance error correction •Review reload 15/core design for cycle 16 including the PDCR, safety evaluation and reload report.	DRS	
68		Core spray suction valves receives a seal-in accident signal and can not be shut for leak isolation during an accident	SPO (I)	
69		SD valves (1, 2A, 2B) may not close under HELB conditions if open with greater than 300 degrees Rx water temperature	SPO (I)	
70		Review relief valve reliability ACR trend	DRS	
71		10 CFR 50.59 Process Modifica ions installed prior to NRC approval and sometimes before the TSAR submitted. (shutdown cooling, SRVs)	SPO (L)	
72	ACR: 8254	Isolation condenser thermal shock operability/service life issue	DRS	
73		Leaker fuel bundle root cause	SPO (I)	
74	IN: 96-07	CRD scram solenoid pilot valve elastomer degradation	SPO (I)	

	REFERENCE	MILLSTONE UNIT 1 INSPECTION ITEM	RESP	STATUS
75	EEI:96-09-08, 96-04-04,97-02-08(09)(10); ACR:M1-96-0981, 02372,M1-96-1058,	Service water inspection (GL89-13) •Arcor issue resolution •SW and ESW system operability •LPCI system operability	DRS	Update IR:97-02
76	ACR 8250,M1-97-0331 URI:91-14-02 LER: 96-25 PIR:95-048 ACR:M1-96-0859,M1-97-0144 LER: 96-30	Electrical separation •Rx high level trip powered from the same source •Cable Separation in Switchgear	DRS/SPO (L)	
77	ACR:M1-96-0845 LER: 96-57	Seismic concern with 4KV breaker racked out	SPO (I)	
78	ACR: 07454 LER: 96-14,95-29,96-35 EEI: 96-09-06 URI:96-005-03,96-005-02	IGSCC Program weaknesses	DRS	
79	ACR:7304, 7402 LER:95-31 Numerous LERs	Review failure to meet technical specifications root cause and corrective actions	SPO (I)	
80	ACR:M1-96-1011	Review TRM for technical specification interpretations •Method to track conditional LCO's	SPO (I)	
81	URI:90-001-02	Seismic qualification of FWCI valve air supply	SPO (I)	
82	URI:90-001-03	FWCI test results	SPO (I)	
83	URI:91-081-04	Availability of short circuit/voltage drop calcs	DRS	
84	VIO:95-007-01	Control room habitability •Use of SCBAs	SPO (I)/SPO (L)	
85	URI:95-028-02	Refueling evolutions contrary to design basis	SPO (I)	
86	VIO:95-031-02	Cross connecting 480V safety related buses	SPO (I)	

	REFERENCE	MILLSTONE UNIT 1 INSPECTION ITEM	RESP	STATUS
87	URI:96-006-01 LER: 96-041, 96-043	Drywell fire/Technical Specifications violation	SPO (I)	
88	LER: 96-008	Nonconservative ATWS low low water level setpoint	SPO (I)	
89	LER: 96-015	Recirc pump flow mismatch surv not perf in accordance with TS	SPO (I)	
90	LER: 96-024	Temporary Modification to the scram air header pressure switch instrument not removed	SPO (I)	
91	LER: 96-032	Unqualified components in drywell preclude long term operability	SPO (I)	
92	LER: 96-036	Potential to bypass turbine stop valve wh- ~ required to be operable	SPO (I)	
93	LER: 96-037	Automatic depressurization system may not be single failure proof	SPO (I)	
94	LER: 96-029, 96-039 ACR: M1-97-0276, 0400	Inservice Inspection/Inservice Testing Programs	DRS	
95	LER: 96-045 ACR: M1-96-0088,0087	LPCI sys inop due to stuck open injection check valve	SPO (I)	
96	LER: 96-061, 96-050,97-04 ACR: M1-96-0941, M1-96-0550	LOCA concurrent with LNP loss DC power prevents closure of LPCI torus cooling valve •RWCU Valves	SPO (I)	
97	URI:95-81-01 EEI:96-006-04 ACR:M1-96-0454	NCR Program Ineffective	SPO (I) SPO (O)	
98	IR:96-12 URI:96-05-01,97-01-03 ACR:M1-96-1024,1025 M1-97-0117,0148, 0168,0223, 0259, 0398, 0437 MC 0350 C.3.1.e C.3.3.c	Operator Licensing and Training •LOIT/LOUT program requirement discrepancies	DRS	

	REFERENCE	MILLSTONE UNIT 1 INSPECTION ITEM	RESP	STATUS
99	EEI:96-01-01 LER:96-10	Inoperable Gas Turbine Fuel Pump	SPO (I)	
100	IFI:96-08-21 MC 0350 C.4.f	Material Condition Program	SPO (I)	
101	LER: 96-53, 96-54,96-65; 97-05 ACR: M1-96-1042,1060, 1059,M1-97-0242, 0424	Radiation Effluents Monitoring Program Review	DRS	
102	ACR:M1-97-0424 EEI: 96-09-07 LER: 96-55, 96-56, 96-60	EDG Air Start System Review	SPO (I)	
103	ACR: M1-97-0292, 0207, 0026; ACR: M1-96-1097	Use of "Non-Q" parts in "Q" applications	SPO (I)	
104	ACR: M1-97-0260	GT Air Start System Review	SPO (I)	
105	ACR: M1-97-0277,0794	Single failure vulnerability of FWCI/APR historical failure to meet ECCS acceptance criteria	SPO (I)	
106	ACR: M1-97-0200	Containment isolation valves exceed allowable stroke time	SPO (I)	
107		Review deferred restart items list (50.54 (f) Response)	SPO (I)	
108		Quality Assurance and Oversight Program	SPO (I) NRR	

ENCLOSURE 2

MILLSTONE RESTART ASSESSMENT PLAN ENCLOSURE (2)

Millstone Unit 2 Significant Items List

The following is a list of the Millstone issues that, as a minimum, require an NRC inspection and evaluation prior to restart.

	REFERENCE	MILLSTONE UNIT 2 INSPECTION ITEM	RESP	STATUS
1	MC 0350 SECTION C.1.3, C.2.1, C.2.2.a,d,e, C.3.1,a,b,c,J	MANAGEMENT OVERSIGHT AND EFFECTIVENESS; LICENSEE STAFF SAFETY CULTURE	SPO(I)	
2	MC 0350 SECTION C.1.1, C.1.3, C.1.4.g, C.3.2, C.4.f; CONFIRMATORY ORDER DATED 08/14/96	50.54(f)/ICAVP (PHASE I and II) FSAR ADEQUACY FOR RESTART 10 CFR 50.59 PROCESS CONFIGURATION MANAGEMENT/DESIGN CONTROL PROCESS (PART OF ICAVP PHASE I)	SPO (O/I/L)	
3	MC 0350 SECTION C.1.1 AND C.1.3; C.2.2.d; UNIT 1 ACR 7007; UNIT 2 ACR 8761	DESIGN CONTROL PROCESS CHANGES TO ADDRESS UNIT 1 ACR 7007 NUMEROUS EXAMPLES OF DRAWINGS NOT REFLECTING ACTUAL PLANT CONFIGURATION	SPO(O)	
4	MC 0350 ITEM C.1.4.e, C 2.2.b,e; CONFIRMATORY ORDER DATED OCTOBER 24, 1996	EMPLOYEE CONCERNS PROGRAM	SPO(L)	
5	MC 0350 SECTION C.1.1, C.1.3, C.1 4.d-l, C.2.1, C.2.2.c,e, C.3.1.d,m; C.4.f; IR 96-04 & 08 EEI 336/96-201-30	CORRECTIVE ACTION PROGRAM EFFECTIVENESS SELF-ASSESSMENT PROGRAM IMPLEMENTATION AND EFFECTIVENESS; COMMITMENT TRACKING	SPO(I)	
6	MC 0350 ITEMS C.2.2.d, C.4.e,f,h,i,j	WORK PLANNING AND CONTROL: PLANT MAINTENANCE PROGRAM EFFECTIVENESS; SIGNIFICANT HARDWARE ISSUES RESOLVED; MAINTENANCE BACKLOG MANAGED AND IMPACT ON OPERATION ASSESSED; SURVEILLANCE TESTING; PLANT HOUSEKEEPING	DRS (OL)	
7	MC 0350 ITEMS C.1.3.f, C.2.1.e, C.3.2.e, C.4.f,i;	BYPASS JUMPERS, OPERATOR WORK-AROUNDS & CONTROL BOARD DEFICIENCIES	SPO(I), OSTI	

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	REFERENCE	MILLSTONE UNIT 2 INSPECTION ITEM	RESP	STATUS
8	MC 0350 ITEMS C.2.1.b, C.2.2.d, C.3.1.k, C.3.3.e,f; IFI 336/95-201-03; URI 336/96-01-04; URI 336/96-06-08 NU LETTER B16257 IR 336/97-02; EEI 97-02-12	PROCEDURE ADEQUACY/PROCEDURE UPGRADE PROGRAM PROCEDURE CLASSIFICATION - GENERAL USE VERSUS CONTINUOUS USE LOSS OF DC BUS EVENT - ESTABLISH PROCEDURES REQUIRED BY TECHNICAL SPECIFICATION 6.8.1 SHUTDOWN COOLING SYSTEM WATER HAMMER; REVIEW OPERATING PROCEDURES TO PRECLUDE WATER HAMMER EVENTS SURVEILLANCE PROCEDURE ADEQUACY	SPO(I) OSTI SPO(O)	
9	MC 0350 ITEMS C.1.4.g, C.2.2.g, C.3.3.e,f; EEI 336/96-08-13, EEI 336/96-06-05, EEI 336/96-08-06, LER 336/97-02; ACR 11104	OPERATING PROCEDURES CONSISTENT WITH FSAR DESCRIPTION OF SYSTEM OPERATION ADEQUACY OF PROCEDURE CHANGE PROCESS TO ENSURE OPERATION IN ACCORDANCE WITH LICENSE	SPO(O)	EEI 96-08-06 UPDATED IR 97-02
10	MC 0350 ITEMS C.2.1.g, C.3.3.e,f; IR 336/95-21	PROGRESS OF EMERGENCY OPERATING PROCEDURE UPGRADES; ACCEPTABILITY OF DEFERRING ABNORMAL OPERATING PROCEDURE UPGRADES	DRS (OL)	
11	MC 0350 ITEMS C.1.4.a,b,c, C.2.1.c	QUALITY ASSURANCE AND OVERSIGHT PROGRAM	SPO(I) NRR	
12	MC 0350 SECTION C.1.1 C.1.3, C.1.4.e, C.2.1.f-g, C.4.f,i	LICENSEE RESTART PUNCH LIST - REVIEW OF ITEMS DEFERRED UNTIL AFTER RESTART	SPO(I)	
13	MC 0350 ITEMS C.3.1.g,h,i,j,l, C.3.3.a,b,d,g	LICENSED OPERATOR STAFFING; CONTROL ROOM FORMALITY; ATTENTIVENESS TO DUTY; ATTENTION TO DETAIL; OFF-HOUR PLANT STAFFING; OVERTIME USAGE; AWARENESS TO PLANT SECURITY; AWARENESS OF EQUIPMENT STATUS; LOG KEEPING PRACTICES;	SPO(I) OSTI	
14	MC 0350 ITEMS C.3.1.e, C.3.3.c; CONFIRMATORY ACTION LETTER DATED MARCH 7, 1997; URI 336/97-01-03	OPERATOR LICENSING AND TRAINING ADEQUACY OF LICENSED OPERATOR TRAINING PROGRAM	DRS (OL)	

	REFERENCE	MILLSTONE UNIT 2 INSPECTION ITEM	RESP	STATUS
15	MC 0350 ITEMS C.4.a,b,c,d,e,g	AUGMENTED INSPECTION COVERAGE DURING RESTART INSPECTION: OPERABILITY OF TECHNICAL SPECIFICATION SYSTEMS; OPERABILITY OF SECONDARY AND SUPPORT SYSTEMS; SYSTEM LINEUPS; RESULTS OF PRE-STARTUP TESTING; POWER ASCENSION TESTING	SPO(I) OSTI	NOTE 1
16	MC 0350 ITEMS C.2.2.g-h, C.3.1.m, C.3.2.h; NU LETTER (B16195) DATED FEBRUARY 10, 1997	EMERGENCY PREPAREDNESS PROGRAM (INCLUDING ORGANIZATION/STAFFING/DOSE ASSESSMENT CAPABILITY)	DRS(EP)	
17	MC 0350 SECTION C.5 AND C.6	DISPOSITION OF REGULATORY ISSUES: LICENSE AMENDMENTS; EXEMPTIONS; RELIEFS; ORDERS; SIGNIFICANT ENFORCEMENT ISSUES; ALLEGATIONS; AND 10 CFR 2.206 PETITIONS. COORDINATION WITH INTERESTED AGENCIES AND PARTIES.	NRR, SPO(L), OE, OI, DRS, OPA	
18	ACRs 02621, M2-96-0239 EEI 336/96-201-42 & 43	MATERIAL, EQUIPMENT AND PARTS LIST (MEPL) PROGRAM	NRR, DRS (SEB)	
19	ACRs M2-96-0515 & 07958; EEI 336/96-06-12, EEI 336/96-201-20, URI 336/93-19-02	EQUIPMENT ENVIRONMENTAL QUALIFICATION (EEQ) PROGRAM HIGH ENERGY LINE BREAK PROGRAM	DRS (EEB)	
20	IFI 336/95-01-01 EEI 336/96-05-11 EEI 336/96-05-09 EEI 336/95-08-01, 03 & 04	MOTOR OPERATED VALVES (GL 89-10) INACCURATE INFORMATION PROVIDED TO THE NRC REGARDING GENERIC LETTER 89-10; DYNAMIC TESTING OF AFW TERRY TURBINE STEAM ADMISSION MOV; PRESSURE LOCKING OF CONTAINMENT SUMP RECIRCULATION VALVES	DRS (SEB)	
21	MC 0350 ITEM C.3.3.e; IR 336/96-08; LICENSEE SELF-ASSESSMENTS AND QA AUDITS; ACR M2-96-0460	FIRE PROTECTION/APPENDIX R PROGRAMS APPENDIX R RELATED ABNORMAL OPERATING PROCEDURES; APPENDIX R COMPLIANCE ASSOCIATED WITH THERMO-LAG	DRS (EEB)	
22	ACRs M2-96-0513; EEI 336/96-06-10 & 11	CONTAINMENT SUMP SCREEN MESH SIZE & ECCS PUMP THROTTLE VALVE CLOGGING	DRS (SEB)	

	REFERENCE	MILLSTONE UNIT 2 INSPECTION ITEM	RESP	STATUS
23	ACRs 01991, M2-96-0449, 0467, 0654, 0655, & 0656; EEI 336/96-08-11, 12 & 13, EEI 336/96-201-03 & 41, URI 336/96-01-05	HYDROGEN MONITORS AND POST-ACCIDENT SAMPLING SYSTEM INOPERABLE AND FAILURE TO MEET DESIGN BASIS AND LICENSING BASIS	SPO(I)	
24	ACRs 08174, 04047, 06372 & 09739; URI 336/95-42-03	EXCESSIVE REACTOR COOLANT SYSTEM HEATUP AND COOLDOWN RATES; EVALUATION OF SIMULTANEOUS REACTOR COOLANT PUMP AND SHUTDOWN COOLING SYSTEM OPERATION	SPO(I)	
25	NUMEROUS ACRs; URI 336/96-06-08	ECCS PUMPS SUCTION LINE FROM RWST HAS NUMEROUS DEGRADED OR INOPERABLE PIPE SUPPORTS, MANY CAUSED BY WATER HAMMER	DRS (CMME)	
26	ACR 11252; EEI 336/96-09-10	"B" EMERGENCY DIESEL GENERATOR FAILURE - INADEQUATE CORRECTIVE ACTIONS	SPO(I)	UPDATED IR 97-02
27	EEI 336/96-201-09	INADEQUATE DESIGN CONTROL MEASURES FOR VERIFYING ACCURACY OF INFORMATION CONTAINED IN DESIGN BASIS DOCUMENT PACKAGES	SPO(O)	
28	EEI 336/96-201-11, EEI 336/96-201-31	FAILURE TO ADEQUATELY CONTROL INSTALLATION OF TEMPORARY MODIFICATION TO THE RBCCW SURGE TANK	SPO(I)	
29	EEI 336/96-201-12	SEPARATION AND SINGLE FAILURE CONCERNS FOR WIDE RANGE NUCLEAR INSTRUMENTS	SPO(I)	
30	EEI 336/96-201-25	FAILURE TO IMPLEMENT CORRECTIVE ACTIONS CONCERNING "DUAL-FUNCTION" ISOLATION VALVES	SPO(I)	
31	EEI 336/96-201-28	FAILURE TO ADDRESS STATION BLACKOUT ISSUES IDENTIFIED IN THE VECTRA ASSESSMENT	SPO(I)	
32	EEI 336/96-201-29	FAILURE TO IMPLEMENT CORRECTIVE ACTIONS FOR AUDIT ISSUES INVOLVING TRENDING AND PRIORITIZATION OF NON-CONFORMANCE REPORTS	SPO(I)	UPDATED IR 97-02
33	EEI 336/96-201-36	INADEQUATE CORRECTIVE ACTION CONCERNING A SEISMIC DESIGN DEFICIENCY OF A VITAL SWITCHGEAR ROOM COOLER	DRS (CMME)	

	REFERENCE	MILLSTONE UNIT 2 INSPECTION ITEM	RESP	STATUS
34	EEI 336/96-08-06	IMPLEMENTATION OF CORRECTIVE ACTION OF CHANGING OPERATING PROCEDURE TO LOCK OPEN REFUELING POOL DRAIN VALVES, AS SPECIFIED IN THE FSAR, WAS INADEQUATE	SPO(I)	UPDATED IR 97-02
35	EEI 336/96-08-08	INADEQUATE CORRECTIVE ACTION IN LER 336/96-24	SPO(I)	
36	EEI 336/96-08-10	INADEQUATE CORRECTIVE ACTIONS TO ADDRESS UNIT 1 HEAVY LOADS LIFTED OVER THE UNIT 2 VITAL SWITCHGEAR ROOM	SPO(I)	UPDATED IR 97-02
37	EEI 336/95-44-05	ICE BLOCKAGE OF SERVICE WATER STRAINER BACKWASH LINE	SPO(I)	
38	URI 336/96-05-11 (IFS NO. URI 336/96-05-17)	SPENT FUEL POOL FSAR UPDATES	SPO(I)	CLOSED IR 97-02
39	EEI 336/96-04-10 URI 336/96-201-38	ERRONEOUS RBCCW FLOW VALUES IN CONTAINMENT TEMPERATURE PROFILE ANALYSIS FAILURE TO CONSIDER POST-ACCIDENT FLUID TEMPERATURE IN HPSI FLOW EVALUATION	DRS (SEB)	
40	LER 336/96-31	POTENTIAL STEAM GENERATOR OVERPRESSURE DUE TO RESTRICTIVE MAIN STEAM SAFETY PIPING	DRS (SEB)	
41	ACR M2-97-0023	SEIMANS COMPUTER MODEL OF REACTOR CORE LARGE AND SMALL BREAK LOSS OF COOLANT ACCIDENTS	NRR	
42	IR 336/94-201 (IFS NO. IFI 336/94-201-90)	EMERGENCY DIESEL GENERATOR FUEL DAY TANK DOES NOT SATISFY 7-DAY DESIGN BASIS CAPACITY	SPO(L)	
43	URI 336/96-08-14 LER 336/96-29	INAPPROPRIATE REMOVAL OF STARTUP RATE TRIP	SPO(I)	
44	ACR 02797, ACR 09563, ACR M2-96-0153; LER 336/97-06	POTENTIAL TO EXCEED CONTAINMENT DESIGN PRESSURE FOLLOWING A MAIN STEAM LINE BREAK	SPO(I)	
45	ACR M2-96-0296	FAILURE OF MAIN STEAM CHECK VALVE FOLLOWING A MAIN STEAM LINE BREAK (MSLB) COULD CAUSE BOTH STEAM GENERATORS TO BLOW DOWN RESULTING IN EXCEEDING CONTAINMENT DESIGN PRESSURE. THE LICENSEE'S MEPL PROGRAM DESIGNATES THE MS CHECK VALVES AS NON-QA WHICH THE LICENSEE HAS EVALUATED AS ACCEPTABLE.	SPO(	

	REFERENCE	MILLSTONE UNIT 2 INSPECTION ITEM	RESP	STATUS
46	LER 336/97-02	CONTROL ROOM AIR CONDITIONING COMMON INLET DAMPER COULD BECOME STUCK CLOSED, DISABLING BOTH FACILITIES. DAMPER HAS NO MANUAL OPERATOR AS STATED IN FSAR.	SPO(I)	
47	URI 336/96-08-09, LER 336/96-24	REACTOR PROTECTION SYSTEM AND ENGINEERED SAFETY FEATURE RESPONSE TIME TESTING	SPO(I)	
48	ACR M2-96-0542	TECHNICAL SPECIFICATION LIMITS FOR INOPERABLE MAIN STEAM SAFETY VALVES NON-CONSERVATIVE	SPO(I)	
49	LER 336/96-30, LER 336/97-05 CR M2-97-0491 & 1229	INSERVICE INSPECTION/INSERVICE TESTING PROGRAMS	DRS (SEB)	
50		CONTROL/USE OF VENDOR INFORMATION	SPO(I)	
51	IR 336/95-29	SERVICE WATER SYSTEM OPERATIONAL PERFORMANCE INSPECTION (SWSOPI) FOLLOWUP	DRS (SEB)	

Note 1: Since this inspection will occur following restart approval, the closure of this item will not be reflected on this list.

ENCLOSURE 3

MILLSTONE RESTART ASSESSMENT PLAN ENCLOSURE (3)

Millstone Unit 3 Significant Items List

	REFERENCE	MILLSTONE UNIT 3 INSPECTION ITEM	RESP	STATUS
1	ACR: 10773 EEI: 96-06-13 LER: 96-007-01 & 02	RSS AND QSS PIPING TEMPERATURE MAYBE HIGHER THAN ANALYZED (NRR REVIEW ENG. ANALYSIS, DRS INSPECT INSTALLATION)	NRR DRS SPO (O)	Update IR96-06
2	EEI: 96-201-01	FSAR ADEQUACY FOR RESTART	SPO(L)	
3	ACR: 05715	REACTOR POWER INCREASE WHEN UNBORATED CATION DEMIN PLACED INTO SERVICE 3CHS-DEMIN2	DRP	CLOSED IR96-08
4	ACR: 01895	EDG SEQUENCER CDA SIGNAL OUTPUT "A" TRAIN COMPONENTS STARTED	DRS	CLOSED IR96-09
5	ACR: 01844 VIO: 94-24-01; LER:97-08	FAILURE TO ENTER AN ACTION STATEMENT WHEN MSIVS WERE CLOSED. (TECH SPEC AMEND)	SPO(I)	Update IR 97-02
6	ACR: 04199	RCP SEAL INJECTION FILTER "B" GASKET FAILED RESULTING IN SPILL OF COOLANT TO FLOOR DRAINS	DRP	CLOSED IR96-08
7	ACR: 06092	RCS CHECK VALVE BODY TO BONNET LEAK; 3 RCS*V146	DRP	CLOSED IR96-06
8	ACR: 01535	WHILE DEWATERING SPENT RESIN, THE WASTE TEMPERATURE IN THE LINER RAISED FROM 90 TO 310°F	DRP	CLOSED IR96-06
9	ACR: 10543	NEED FOR ADDITIONAL REVIEW OF RESPONSE TIME TESTING FOR PROCEDURES	SPO(I)	
10	ACR: 11322	CLOSURE OF PIR WITHOUT ADDRESSING DESIGN FEATURE OF AFFECTED COMPONENTS	DRP	CLOSED IR96-09
11	NU LTR (B15397) 11/1/95, ACR: 10774 & 10780 EEI: 96-201-04, 05; URI: 96-201-40	TURBINE DRIVEN AUX FEEDWATER DESIGN CONCERNS. (TECH SPEC AMEND.)	SPO(I)	

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	REFERENCE	MILLSTONE UNIT 3 INSPECTION ITEM	RESP	STATUS
12	ACR:97-0317 ,6323 URI: 96-04-13, 96-04-14, 96-04-15 IFI: 94-11-09 IN: 97-11	CONTAINMENT FOUNDATION EROSION	NRR SPO (L)	
13	ACR: 96-326, 13427,96-0887 URI: 96-08-20;IR: 96-201 LER: 96-28 & 96-40	CCP SYSTEM OPERATION ABOVE DESIGN TEMPERATURE; 3 RHS*HCV 606/607 FAILING OPEN; AND OTHER FAILURE MODES	SPO(I)	Update IR96-08
14	ACR: 7745 URI: 96-01-07	SGCS OPERATIONAL CONFIGURATION CONTROL (TECH SPEC AMEND.)	SPO(I)	Update IR 97-02
15	ACR: 96-0159 EEI: 96-06-15	LETDOWN HEAT EXCHANGER LEAKAGE AND DESIGN DISCREPANCIES	SPO(I)	Update IR96-06
16	Unit 2 ACR: 01935	DUAL FUNCTION VALVE CONTROL AND TESTING	SPO (I)	Update IR 97-02
17	ACR: 7266	RCP SEAL HOUSING LEAKAGE AND BOLT CORROSION	DRS	
18	ACR: 10562, PPR G.2 EEI: 96-201-15, 96-201-18, 96-201-19 URI: 96-201-17	CONTROL/USE OF VENDOR INFORMATION	DRS SPO(I)	Update IR 97-02
19	URI: 96-201-16	RESOLUTION OF AFW VALVES HELB CONCERN	SPO(I)	
20	VIO: 96-59-13 MC 0350 ITEMS C.1.4.e & C.2.2.b	EMPLOYEE CONCERNS PROGRAM	SPO(L)	
21		FATIGUE CYCLE OPEN ITEMS IP 37750 (UNIT 2 ISSUE)	DRS	CLOSED IR96-01
22		PART 70 STORAGE AND INVENTORY IP 84750 (UNIT 1 ISSUE)	DRS	CLOSED IR96-05
23		FORMALITY OF NON-ROUTINE SECURITY ACTIVITIES AND NEW FUEL SECURITY IP 81064	DRS	CLOSED IR96-05

	REFERENCE	MILLSTONE UNIT 3 INSPECTION ITEM	RESP	STATUS
24	URI: 96-01-08 LER: 97-17	OVERLAP TESTING OF RPS/ESF	SPO(I)	Update IR97-01
25	ACR: 912 URI: 95-07-10 EEI: 96-201-43	MATERIAL, EQUIPMENT AND PARTS LIST (MEPL) PROGRAM	DRS SPO(I)	Update IR96-201, 97-202
26	ACR: 96-277, 0278, 627, 12862 LER: 96-19,20, 96-35; URI: 95-17-09 IFI: 95-01-01, 95-17-01, 02, 03, 04, 05; IN: 97-07	MOTOR OPERATED VALVES (GL 89-10)	DRS	
27	PPR G.1.C, G.2 MC 0350 ITEMS C.4.e	MISSED SURVEILLANCES/TEST CONTROL	SPO(I)	CLOSED IR96-08
28	PPR G.1.C	DILUTION EVENTS	SPO(I)	CLOSED IR96-08
29	PPR G.1.C	FEEDWATER HAMMER	DRS	CLOSED IR96-01
30	IR: 95-31, NU LTR (B15397) 11/1/95 PPR G.1.C, ACR 96-0855	AFW CHECK VALVE LEAKAGE	SPO(I)	CLOSED IR:97-02
31	PPR G.1.C, G.2 MC 0350 ITEMS C.1.3.f, C.2.1.e C.3.2.e, C.4.f.& I	WORK-AROUNDS AND ABUSE OF USE-AS-IS DEFICIENCIES	SPO(I)	
32	NOV: 94-16-05 PPR G.2 MC 0350 ITEMS C.2.2.e C.4.f,h,i	WORK PLANNING AND CONTROL	DRS	

	REFERENCE	MILLSTONE UNIT 3 INSPECTION ITEM	RESP	STATUS
33	IR: 96-201 PPR G 2, LER: 3-003; ACR: 96-0563; CR: 97-0850	SEISMIC II/I	DRS	
34	IP:84750; VIO: 96-09-18;IFI:96-13-01	EFFLUENT/ENVIRONMENTAL SAMPLING AND ANALYTICAL PROFICIENCY	DRS	Update IR96-09, 96-13
35	IP:86750	RADWASTE SYSTEMS/CONTROLS	DRS	Update IR96-08
36	ACR:M3-97-0216	HEAT EXCHANGER PERFORMANCE (GL 89-13)	DRS	
37	IR: 96-04 EEI: 96-201-13, 21, 22, 23, 24, 26, 27, 28, 29 MC 0350 ITEMS C.1.1, C.1.3, C.1.4.d,e,g, C.2.1, C.2.2.c,e, C.3.1.d, C.4.f	CORRECTIVE ACTION PROGRAM EFFECTIVENESS (TECH SPEC AMEND.)	SPO(I)	Update IR:97-02,97-202
38		REVIEW 0737 ACTION ITEMS FOR COMPLETION	SPO(I)	
39	MC 0350 ITEMS C.3.2.a,c	REVIEW ENGINEERING BACKLOGS	DRS OSTI	
40	MC 0350 ITEMS C.1.1, C.1.3, C.1.f,& g, C.4.f,i	REVIEW 50.54F ISSUES FOR RESTART/REVIEW DEFFERED RESTART ITEMS LIST	SPO (L) SPO (I)	Update IR96-06, 97-202
41	ACR: 7007 URI: 95-81-01 VIO: 96-09-04 MC 0350 C.1.4.I	REVIEW SELF ASSESSMENT ROOT CAUSES AND VERIFY CORRECTIVE ACTIONS (IP40500)	SPO(I)	Update IR: 97-02
42	IR: 96-08	FIRE PROTECTION/APPENDIX R PROGRAMS	DRS	Update IR:97-202
43	ORDER	50.54(f)/ICAVP (PHASE I and II)	SPO(O)	

	REFERENCE	MILLSTONE UNIT 3 INSPECTION ITEM	RESP	STATUS
44	ACR: 12116, 96-0325 LER: 96-26	CYCLE 6 BORON DILUTION ANALYSIS POTENTIALLY NON-CONSERVATIVE AND PGS FLOW RATE TO CHARGING PUMPS MAY BE IN ERROR	DRS	
45	ACR: 96-0524,08897 URI 96-06-14 LER 96-29 & 96-39	INITIAL SETTINGS FOR ECCS THROTTLE VALVES INADEQUATE AND POTENTIAL CLOGGING. (TECH SPEC AMEND.)	SPO(I)	Update IR96-06
46	ACR: 96-0183	LOW PRESSURE SAFETY INJECTION PENETRATIONS	SPO(I)	
47	ACR: 96-0391	RHR HEAT EXCHANGER BOLTING SUSCEPTIBLE TO BORIC ACID	DRS	CLOSED IR:97-202
48	ACR: 10397	LLRT "AS FOUND" TOTAL LEAKAGE EXCEEDED MAX ALLOWABLE	SPO (I)	CLOSED IR96-08
49	ACR: 96-0324	FUEL TRANSFER TUBE BELLOWS SEAL CONNECTION NOT TESTED	SPO (I)	CLOSED IR96-08
50	ACR: 96-0446	DOCUMENTATION OF CONTAINMENT SYSTEMS DISCREPANCIES	DRS	
51	ACR: 96-0339, 96-0389	WALWORTH VALVE YOKE GENERIC ISSUE	DRS	
52	ACR: 10795 EEI: 96-201-02,23 LER: 96-005-01	SWP TEMPERATURE SWITCHES DEFEATED BY BYPASS JUMPER FOR SWP*P3A1B (BOOSTER PUMPS)	SPO(I)	
53	ACR: 96-0449;CR:97-1007,97-1729; URI: 96-09-11; LER: 96-25	PIECES OF ARCOR FOUND IN 3RSS*E1A AND 3RCC*E1C	SPO (I) SPO (O)	Update IR:96-09, 97-202
54	ACR: 96-0181	NUMEROUS BOLTS ON BACK DOOR ON 4160V SWITCHGEAR MISSING	DRP	CLOSED IR96-06
55	ACR: 96-0467	FAST TRANSFER TEST FAILURES	DRS	CLOSED IR96-09
56	ACR: 12495	SHUTDOWN MARGIN MONITOR ALARM SETPOINT	DRS	CLOSED IR96-05

	REFERENCE	MILLSTONE UNIT 3 INSPECTION ITEM	RESP	STATUS
57	ACR: 96-0080, 96-0081 LER 96-15, 45, 49 LER 96-015-02	POTENTIAL ELECTRICAL SEPARATION VIOLATIONS	DRS SPO (I)	Update IR:97-202
58	ACR: 96-0557, 96-0685 EEI 96-201-33	THERMAL RELIEF VALVE SETPOINTS	SPO(I)	Update IR:97-02
59	ACR: 96-0775, 9124, 0846 LER 96-33	USE OF BORAFLEX IN SFP RACKS (TECH SPEC AMEND.)	SPO(I) NRR	UPDATE IR: 97-202
60	ACR: 96-0718, 0821 EEI:96-09-16	ANALYSIS OF SOV FAILURE MODES DUE TO MOPD	SPO(I)	Update IR96-09
61	UNIT 2 ACR: 7923	EQUIPMENT ENVIRONMENTAL QUALIFICATION (EEQ) PROGRAM	DRS	
62	ACR: 13788	TSP BASKET SAFETY EVALUATION POSSIBLY NOT VALID	SPO(I)	CLOSED IR: 97-02
63	ACR:96-0396	3MSS*MOV17D MISSED IST SURVEILLANCE REQUIREMENT	DRP	CLOSED IR96-08
64	ACR: 08614	REACTOR PROTECTION LEAD LAG CIRCUITS MAY BE SET NONCONSERVATIVELY	DRS	CLOSED IR96-05
65	ACR: 96-0745, CR:97-742 LER: 96-36	SIL/SIH VALVES POWERED FROM NONSAFETY TRAIN	SPO NRR	
66	ACR: 96-0483	CCP AND CCE NON-Q COMPONENTS CAUSE Q-COMPONENTS NOT TO FAIL SAFE	SPO(I)	
67	ACR: 96-0621 TAC No. M96054 URI: 96-201-14; IN 97-21	SBO POSSIBLE OVERLOAD IN EVENT OF AN SIS ACTUATION & DESIGN ISSUES	SPO(I) NRR	Update IR: 97-01
68		REVIEW ALLEGATIONS FOR RESTART ISSUES	SPO (L) SPO (I)	
69		REVIEW ALL OPERABILITY DETERMINATIONS AND BY-PASS JUMPERS BEFORE RESTART	SPO (I)	

	REFERENCE	MILLSTONE UNIT 3 INSPECTION ITEM	RESP	STATUS
70	URI: 96-08-16 LER: 96-002-01, 96-37, 96-38, 96-42, 96-43, 96-48, 96-51,97-04,97-07,97-18,97-19	REVIEW TRM FOR TECH. SPEC. INTERPRETATIONS; EVALUATE TS AND OPER. LICENSE ISSUES	DRS	Update IR:97-02
71	MC 0350 C.1.4.i	REVIEW LICENSEE EVENT REPORTS FOR RESTART ISSUES	SPO(I)	
72		REVIEW ENFORCEMENT AND UNRESOLVED ITEMS FOR ITEMS FOR RESTART ISSUES	SPO(I)	
73	NOV: 96-05-12; IFI: 96-06-17 MC 0350 C.1.4.a,b,c, C.2.1.c	QUALITY ASSURANCE AND OVERSIGHT PROGRAM	OSTI 40500	
74	URI: 96-08-18; LER: 96-21; CR 97-901	INSERVICE INSPECTION/INSERVICE TESTING PROGRAMS	DRS	Update IR:97-02,97-202
75	IFI: 96-08-15, 96-09-17	TIA ISSUES (EDG EXHAUST & REQUIRED # OF SW PUMPS)	NRR SPO (L)	
76	IFI: 96-08-17	CRACKING OF FUSE FERRULES	DRS	CLOSED IR:97-202
77	IFI: 95-44-06	POTENTIAL FREEZING OF SW BACKWASH LINES	SPO(I)	Update IR:96-09
78	URI: 93-07-07, EEI: 96-201-02, 04, 05, 06, 07, 08	10 CFR 50.59 PROCESS	SPO(L)	
79	EEI: 96-201-09, 15, 35, 37, 39 MC 0350 C.3.2.f	CONFIGURATION MANAGEMENT/DESIGN CONTROL PROCESS (PART OF ICAVP PHASE I)	SPO(I) SPO(O)	Update IR: 97-02

	REFERENCE	MILLSTONE UNIT 3 INSPECTION ITEM	RESP	STATUS
80	ACR: 97-348 EEI: 96-201-18, 19 MC 0350 C.2.1.b, C.2.2.d, C.3.1.k, C.3.3.e,f	PROCEDURE ADEQUACY/PROCEDURE UPGRADE PROGRAM	SPO(I) OSTI	Update IR97-01
81	EEI: 96-201-32, 33, 34; LER: 96-32	TESTING OF SAFETY SYSTEMS	DRS	Update IR:97-02
82	EEI: 96-201-10	QUALITY ASSURANCE RECORDS	SPO(I)	
83	NU LETTER (B16195), 2/10/97 MC 0350 ITEMS C.2.2.g, h, C.3.1.m, C.3.2.h: IFI: 95-36-01	EMERGENCY PREPAREDNESS PROGPAM (INCLUDING ORGANIZATION/STAFFING/DOSE ASSESSMENT CAPABILITY)	DRS	Update IR:96-09, 97-202
84	MC 0350 ITEM C.3.1.l EEI: 96-05-15, 97-01-XX; U1 VIO: 96-09-20	SECURITY ISSUES - CORRECTIVE ACTION	DRS	
85	ACR: 96-496, 497, 620, 1078, 97-039, 128, 409 LER: 97-03, 97-15, 97-21; CR:97-1028	OTHER RSS AND RELATED DESIGN BASIS CONCERNS	SPO (O) NRR	
86	CAL:1-97-010; CR:97-0927	OPERATOR LICENSING AND TRAINING	SPO(I) DRS	Update IR: 97-202,97-04

ENCLOSURE 4

MILLSTONE RESTART ASSESSMENT PLAN

MILLSTONE UNIT ALL UNITS

RESTART APPROVAL (MC0350)

The following items are considered applicable to the restart of all Millstone Units:

RESPONSIBILITIES AND AUTHORITIES

		NEED	STATUS	RESP
4.01	Director, Special Projects Office (SPO). Notifies the Executive Director for Operations (EDO) and the Commission, as appropriate, of the NRC actions taken concerning shutdown plants and the proposed followup plan.	X	C	NRR
4.02	Director, Special Projects Office a. Discusses with the Deputy Executive Director for Nuclear Reactor Regulation, Regional Operations and Research, the Office of Enforcement (OE), and NRR, as appropriate, the need for an order or confirmatory action letter (CAL) specifying the actions required of the licensee to receive NRC approval to restart the plant and the proposed followup plan.	X	C	DSPO
	b. Decides, in consultation with the NRR Associate Director for Projects, whether this manual chapter applies to a specific reactor restart.	X	C	DSPO
	c. In coordination with the NRR Associate Director for Projects, decides whether to establish a Restart Panel.	X	C	DSPO

		NEED	STATUS	RESP
	d. Develops a written Restart Assessment Plan, including a case-specific checklist, to assign responsibilities and schedules for restart actions and interactions with the licensee and outside organizations.	X	C	RAP
	e. Coordinates and implements those actions prescribed in the Restart Assessment Plan that have been determined to be the Office of Special Project's responsibility. These include, when appropriate, interactions with State and local agencies and with regional offices of Federal agencies.	X		RAP
	f. In conjunction with NRR, reviews and determines the acceptability of licensee's corrective action program.	X		RAP SRI OSTI NRR
	g. Approves restart of the shutdown plant, following consultation with the EDO and the Director of NRR, and approval/vote by the Commission.	X		DSPO
4.03	Director SPO			
	a. Acts as the focal point for discussions within NRR to establish the appropriate followup actions for a plant that has been shut down.	X		DSPO
4.04	Deputy Director, Licensing			
	a. Coordinates participation in followup conference calls and management discussions to ensure that the Director SPO are directly involved, when appropriate, in followup action.	X		DSPO L

		NEED	STATUS	RESP
	b. Coordinates and implements actions prescribed in the Restart Assessment Plan that have been determined to be Licensing's responsibility. These include, where applicable, appropriate NRC Office or NRR Division interaction with other Federal agencies (e.g., Federal Emergency Management Agency (FEMA), Department of Justice (DOJ)) pursuant to any applicable Memoranda of Understanding.	x		DSPO L

		NEED	STATUS	RESP.
B.1	INITIAL NRC RESPONSE The facts, the causes, and their apparent impacts should be established early in the process. This information will assist the NRC in characterizing the problems, the safety significance, and the regulatory issues. Early management appraisal of the situation is also important to ensure the proper immediate actions are taken. The following items should have been completed or should be incorporated into the CSC as appropriate. Refer to Section 5.02 of this manual chapter for additional information.	NA		
	a. Initial notification and NRC management discussion of known facts and issues	NA		

	b.	Identify/implement additional inspections (i.e. AIT, IIT, or Special) (Region).	NA		
	c.	Determine need for formal regulatory response (i.e. order or CAL).	NA		
	d.	Identify other parties involved (i.e., NRC Organizations, other Federal agencies, industry organizations).	NA		

			NEED	STATUS	RESP.
B.2	NOTIFICATIONS Initial notification of the event quickly communicates NRC's understanding of the event and its immediate response to the parties having an interest in the event. Notification to regional and headquarters offices of cognizant Federal agencies may be appropriate. As the review process continues, additional and continuing notifications may be required.		NA		
	a.	Issue Daily and Directors Highlight (NRR).	NA		
	b.	Issue preliminary notification (Region).	NA		
	c.	Conduct Commissioner assistants' briefing.	NA		
	d.	Issue Commission paper (NRR).	NA		
	e.	Cognizant Federal agencies notified (i.e., FEMA, EPA, DOJ).	NA		
	f.	State and local officials notified (Region).	NA		
	g.	Congressional notification (NRR)	NA		

PROCESS B.3

		NEED	STATUS	RESP.
B.3	ESTABLISH AND ORGANIZE THE NRC REVIEW PROCESS			
	a. Establish the Restart Panel.	X	C	RAP
	b. Assess available information (i.e. inspection results,licensee self-assessments, industry reviews).	X		RAP
	c. Obtain input from involved parties both within NRC and other Federal agencies such as FEMA, EPA, DOJ.	X		RAP
	d. Conduct Director SPO briefing.	X	C	RAP
	e. Conduct NRR Executive Team briefing (NRR).	X	C	RAP
	f. Develop the case-specific checklist (CSC).	X	C	RAP
	g. Develop the Restart Assessment Plan.	X	C	RAP
	h. Director SPO approves Restart Assessment Plan.	X	C	DSPO
	I. NRR Director approves Restart Assessment Plan.	X	C	DNRR
	j. Implement Restart Assessment Plan.	X		RAP
	k. Modify order as necessary	X		NRR

		NEED	STATUS	RESP.
B.4	REVIEW IMPLEMENTATION			
B.4.1	Root Causes and Corrective Actions			
	a. Evaluate findings of the special team inspection.	X		OSTI RAP

	b.	Licensee performs root cause analysis and develops corrective action plan for root causes.	X		NU OSTI
	c.	NRC evaluates licensee's root cause determination and corrective action plan.	X		RAP OSTI

		NEED	STAT US	RESP
B.4.2	B.4.2 Assessment of Equipment Damage For events where equipment damage occurs, a thorough assessment of the extent of damage is necessary. A root cause determination will be necessary if the damage was the result of an internal event. The need for independent NRC assessment should be considered. The licensee will need to determine corrective actions to repair, test, inspect, and/or analyze affected systems and equipment. These actions are required to restore or verify that the equipment will perform to design requirements. Equipment modifications may also be required to ensure performance to design requirements. Potential offsite emergency response impact for external events such as natural disasters, explosions, or riots should be considered. NRR should obtain information from FEMA headquarters reaffirming the adequacy of State and local offsite emergency plans and preparedness if an event raises reasonable doubts about emergency response capability.	NA		
	a. Licensee assesses damage to systems and components.	NA		

	b.	NRC evaluates licensee damage assessment.	NA		
	c.	Licensee determines corrective actions.	NA		
	d.	NRC evaluates corrective actions.	NA		

		NEED	STATUS	RESP.
B.4.3	Determine Restart Issues and Resolution The establishment of the restart issues that require resolution before restart demands a clear understanding of the issues and the actions required to address those issues by both the NRC and the licensee. This section outlines steps to determine the restart issues and NRC's evaluation of their resolution.	X		RAP
	a. Review/evaluate licensee generated restart issues.	X		RAP
	b. Independent NRC identification of restart issues	X	C	RAP
	c. NRC/licensee agreement on restart issues.	X		RAP
	d. Evaluate licensee's restart issues implementation process.	X		RAP
	e. Evaluate licensee's implementation verification process.	X		SRI

		NEED	STATUS	RESP.
B.4.4	Obtain Comments Since some shutdowns involve a broad number of issues, solicitation of comments from diverse sources may be appropriate. The decision to solicit comments from a group and the level of participation should be made on a case-by-case basis. Input from these groups should be factored into the restart process when they contribute positively to the review. Note: If needed, comments concerning the adequacy of state and local emergency planning and preparedness must be obtained from FEMA headquarters through NRR.			RAP
	a. Obtain public comments.	X	f this item will not be reflected on this list.	
	b. Obtain comments from State and Local Officials (Region).	X		SLO
	c. Obtain comments from applicable Federal agencies.	X		RAP
B.4.5	Closeout Actions When the actions to resolve the restart issues and significant concerns are substantially complete, closeout actions are needed to verify that planned inspections and verifications are complete. The licensee should certify that corrective actions required befor. restart are complete and that the plant is physically ready for restart. This section provides actions associated with completion of significant NRC reviews and preparations for restart.			RAP OSTI
	a. Evaluate licensee's restart readiness self-assessment.	X		

	b.	NRC evaluation of applicable items from Section C "ISSUES" complete.	X		RAP
	c.	Restart issues closed.	X		RAP SRI OSTI
	d.	Conduct NRC restart readiness team inspection.	X		OSTI
	e.	Issue augmented restart coverage inspection plan.	X		OSTI
	f.	Comments from other parties considered.	X		RAP
	g.	Determine that all conditions of the Order/CAL are satisfied.	X		RAP
	h.	Re-review of Generic Restart Checklist complete.	X		RAP SRI
B.5	RESTART AUTHORIZATION (B.5) When the restart review process has reached the point that the issues have been identified, corrected, and reviewed, a restart authorization process is begun. At this point the Restart Panel should think broadly and ask: "Are all actions substantially complete? Have we overlooked any items?"				
	a.	Prepare restart recommendation document and basis for restart.	X		RAP
	b.	NRC Restart Panel recommends restart	X		RAP
	c.	No restart objections from other applicable HQ offices.	X		MCKee
	d.	No restart objections from applicable Federal agencies.	X		RAP
	e.	DSPO concurs in restart recommendation	X		DSPO
	f.	NRR Director concurs in restart recommendation.	X		DSPO L
	g.	EDO concurs in restart recommendation when required.	X		EDO

	h. Conduct ACRS briefing when requested (NRR).	X		SPO

	l. Conduct Commission briefing when requested.	X		DSPO
	j. Commission approves In restart authorization.	X		COMM
	k. DSPO authorizes restart.	X		EDO

B.6	RESTART AUTHORIZATION NOTIFICATION (B.6) Notify the applicable parties of the restart authorization. Notifications should generally be made using a memorandum or other format consistent with the level of formality required. Communication of planned actions is important at this stage to ensure that NRC intentions are clearly understood.			
	a. Commission (if the Commission did not concur in the Restart Authorization or as requested) (NRR).	NA		RAP
	b. EDO (if the EDO did not concur in the restart recommendation or as requested) (NRR).	NA		EDO
	c. Congressional Affairs (RAP).	X		OCA
	d. ACRS (a briefing may be substituted for the written notification if the ACRS requests a briefing) (NRR).	X		SPO
	e. Applicable Federal agencies.	X		RAP
	f. Public Affairs.	X		OPA
	g. State and local officials.	X		SLO
	h. Citizens or groups that expressed interest during the restart approval process.	X		RAP

ISSUES

		NEED	STATUS	RESP.
C.1.1	Root Cause Assessment			
	a. Conditions requiring the shutdown are clearly understood.	X		RAP
	b. Root causes of the conditions requiring the shutdown are clearly understood.	X		RAP
	c. Root causes of other significant problems are clearly understood.	X		RAP
	d. Effectiveness of the root cause analysis program.	X		RAP
C.1.2	Damage Assessment			
	a. Damage assessment was thorough and comprehensive.	NA		
	b. Corrective actions clearly restored systems and equipment or verified they can perform as designed.	NA		
C.1.3	Corrective Actions			
	a. Thoroughness of the corrective action plan	X		RAP
	b. Completeness of corrective action programs for specific root causes.	X		SRI
	c. Control of corrective action item tracking.	X		SRI OSTI
	d. Effective corrective actions for the conditions requiring the shutdown have been implemented.	X		SRI OSTI
	e. Effective corrective actions for other significant problems have been implemented.	X		SRI OSTI
	f. Control of long-term corrective actions.	X		SRI OSTI 405 00

	g.	Effectiveness of the corrective action verification process.	X		SRI OSTI 405 00

			NEED	STATUS	RESP.
C.1.4	Self-Assessment Capability The occurrence of an event may be indicative of potential weaknesses in the licensee's self-assessment capability. A strong self-assessment capability creates an environment where problems are readily identified, prioritized, and tracked. Effective corrective actions require problem root cause identification, solutions to correct the cause, and verification methods that ensure the issue is resolved. Senior licensee management effectiveness in ensuring effective self-assessment is treated separately.				
	a.	Effectiveness of Quality Assurance Program.	X		RAP 405 00
	b.	Effectiveness of Industry Experience Review Program.	X		OSTI 4050 0
	c.	Effectiveness of licensee's Independent Review Groups.	X		SRI OSTI 4050 0
	d.	Effectiveness of deficiency reporting system.	X		SRI OSTI 4050 0
	e.	Staff willingness to raise concerns.	X		OE RAP
	f.	Effectiveness of PRA usage.	X		OSTI
	g.	Effectiveness of commitment tracking program.	X		SRI RAP
	h.	Review applicable external audits	X		OSTI

	l.	Quality of 10 CFR 50.72 and 50.73 reports.	X		SRI
			NEED	STATUS	RESP.
C.2.1	Management Oversight and Effectiveness				
	a.	Goals/expectations communicated to the staff.	X		OSTI 40500
	b.	Demonstrated expectation of adherence to procedures.	X		SRI OSTI
	c.	Management involvement in self-assessment and independent self-assessment capability	X		RAP 40500
	d.	Effectiveness of management review committees.	X		SRI OSTI 40500
	e.	Management's demonstrated awareness of day-to-day operational concerns.	X		SRI OSTI
	f.	Management's ability to identify and prioritize significant issues.	X		SRI OSTI 40500
	g.	Management's ability to coordinate resolution of significant issues.	X		SRI OSTI 40500
	h.	Management's ability to implement effective corrective actions.	X		SRI OSTI 40500
C.2.2	Management Support				
	a.	Impact of any management reorganization.	X		RAP 40500
	b.	Effective and timely resolution of employee concerns.	X		RAP
	c.	Adequate engineering support as demonstrated by timely resolution of issues.	X		DRS OSTI

	d.	Adequate plant administrative procedures.	X		SRI PE
	e.	Effective information exchange with other utilities.	X		SRI OSTI
	f.	Participation in industry groups.	NA		405 00
	g.	Effectiveness of Emergency Response Organization.	X		DRS
	h.	Coordination with offsite emergency planning officials.	X		DRS

			NEED	STATUS	RESP.
C.3.1	Assessment of Staff				
	a.	Demonstrated commitment to achieving improved performance.	X		RAP SRI OSTI
	b.	Demonstrated safety consciousness.	X		OSTI SRI
	c.	Understanding of management's expectations and goals.	X		OSTI 405 00
	d.	Understanding of plant issues and corrective actions.	X		OSTI SRI 4050 0
	e.	Qualifications and training of the staff.	X		OSTI 4150 0
	f.	Staff's fitness for duty.	NA		
	g.	Attentiveness to duty.	X		OSTI
	h.	Level of attention to detail.	X		OSTI
	I.	Off-hour plant staffing.	X		SRI
	j.	Staff overtime usage.	X		SRI
	k.	Procedure usage/adherence.	X		SRI PE
	l.	Awareness of plant security.	X		DRS

	m.	Understanding of offsite emergency planning issues.	X	DRS
C.3.2	Assessment of Corporate Support and Site Engineering Support			
	a.	Corporate staff understanding of plant issues.	X	OSTI
	b.	Corporate staff site specific knowledge.	X	OSTI
	c.	Effectiveness of the corporate/plant interface meetings.	X	OSTI
	d.	Corporate involvement with plant activities.	X	OSTI
	e.	Effectiveness of site engineering support.	X	DRS OSTI
	f.	Effectiveness of the site design modification process.	X	DRS OSTI
	g.	Effectiveness of licensing support.	X	RAP
	h.	Coordination with offsite emergency planning officials.	X	RAP
C.3.3	Operator Issues			
	a.	Licensed operator staffing meets requirements and licensee goals.	X	OSTI
	b.	Level of formality in the control room.	X	OSTI SRI
	c.	Effectiveness of control room simulator training.	X	DRS
	d.	Control room/plant operator awareness of equipment status.	X	OSTI SRI
	e.	Adequacy of plant operating procedures.	X	SRI PE
	f.	Procedure usage/adherence.	X	SRI OSTI
	g.	Log keeping practices.	X	OSTI

C.4	ASSESSMENT OF PHYSICAL READINESS OF THE PLANT			
	a. Operability of technical specification systems.	X		OSTI
	b. Operability of required secondary and support systems.	X		OSTI
	c. Results of pre-startup testing.	X		SPO OSTI
	d. Adequacy of system lineups.	X		OSTI
	e. Adequacy of surveillance tests/test program.	X		OSTI
	f. Significant hardware issues resolved (i.e. damaged equipment, equipment ageing, modifications).	X		OSTI
	g. Adequacy of the power ascension testing program.	X		OSTI SRI
	h. Effectiveness of the plant maintenance program.	X		OSTI DRS
	i. Maintenance backlog managed and impact on operation assessed.	X		OSTI
	j. Adequacy of plant housekeeping and equipment storage.	X		OSTI

		NEED	STATUS	RESP
C.5	ASSESSMENT OF COMPLIANCE WITH REGULATORY REQUIREMENTS			
	a. Applicable license amendments have been issued.	X		RAP
	b. Applicable exemptions have been granted.	X		RAP
	c. Applicable reliefs have been granted.	X		RAP
	d. Imposed Orders have been modified or rescinded.	X		RAP
	e. Significant enforcement issues have been resolved.	X		RAP OE
	f. Allegations have been appropriately addressed.	X		RAP SRI PE

	g.	10 CFR 2.206 Petitions have been appropriately addressed.	X		NRR
	h.	Atomic Safety and Licensing Board hearings have been completed.	NA		

C.6	COORDINATION WITH INTERESTED AGENCIES AND PARTIES				
	a.	Federal Emergency Management Agency	X		DRS
	b.	Environmental Protection Agency	X		RAP
	c.	Department of Justice	X		OE OI
	d.	Department of Labor	X		OE
	e.	Appropriate State and local officials	X		SLO
	f.	Appropriate public interest groups	X		RAP
	g.	Local news media	X		3OPA

ENCLOSURE 5

LICENSING AMENDMENT REQUESTS

Mr. Bruce Kenyon
President and Chief Executive Officer
Northeast Nuclear Energy Company
P.O. Box 128
Waterford, CT 06385-0128

SUBJECT: RESTART ASSESSMENT PLAN

Dear Mr. Kenyon:

This letter is to inform you of a recent revision and update to the NRC's Millstone Restart Assessment Plan. This will be the third revision to the plan since it was initially issued. The Restart Assessment Plan has been revised to reflect additions to the Significant Items Lists (SIL), additions to the reference section and updated to reflect recent inspection activities. The revised Restart Assessment Plan is enclosed to this letter.

One item was added to the Unit 1 SIL (#108) concerning the Quality Assurance and Oversight Program and SIL #71 was expanded to include the 10 CFR 50.59 process. Also, the two security issues were combined (#8 and #108). Three items were added to the Unit 2 SIL (#49, #50 and #51) concerning Inservice Inspection/Inservice Testing Programs, Control/Use of Vendor Information and follow up of the service water system operational performance inspection items; additionally, SIL #2 has been expanded for clarity. One item was added to the Unit 3 SIL (#86) concerning Operator Licensing and Training.

If you have any, questions please contact Mr. Wayne D. Lanning at 610-337-5126 or Mr. Jacque P. Durr at 610-337-5224.

Sincerely,

William D. Travers, Director
Special Projects Office
Office of Nuclear Reactor Regulation

Enclosure: Restart Assessment Plan dated July 17, 1997

Docket Nos. 50-245, 50-336, and 50-423

cc w/enclosure
N. S. Carns, Senior Vice President and Chief Nuclear Officer
M. H. Brothers, Vice President - Millstone, Unit 3
J. McElwain, Unit 1 Recovery Officer
M. Bowling, Jr., Unit 2 Recovery Officer
D. M. Goebel, Vice President, Nuclear Oversight
J. K. Thayer, Recovery Officer, Nuclear Engineering and Support
P. D. Hinnenkamp, Director, Unit Operations
F. C. Rothen, Vice President, Work Services
J. Stankiewicz, Training Recovery Manager
R. Johannes, Director - Nuclear Training
L. M. Cuoco, Esquire
J. R. Egan, Esquire
V. Juliano, Waterford Library
J. Buckingham, Department of Public Utility Control
S. B. Comley, We The People
State of Connecticut SLO Designee
D. Katz, Citizens Awareness Network (CAN)
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J. M. Block, Attorney, CAN
S. P. Luxton, Citizens Regulatory Commission (CRC)
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OFFICE	RI/SPO		RI/SPO		D:SPO/NRR			
NAME	JDURR		WLANNING		WTRAVERS			
DATE	7/17/97		7/17/97		7/1/97			

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

June 4, 1997

Mr. Leon R. Eliason
Chief Nuclear Officer & President
Nuclear Business Unit
Public Service Electric and Gas Company
P. O. Box 236
Hancocks Bridge, New Jersey 08038

SUBJECT: **NRC RESTART ACTION PLAN - REVISION 3**

Dear Mr. Eliason:

Enclosed is the Revision 3 to NRC's Restart Action Plan (RAP) for Salem Units 1 and 2. The RAP was originally published on February 2[illegible] 1996 to describe NRC's planned monitoring activities for restart of the Salem units. Revision 1 and Revision 2 of NRC's RAP were sent to you on August 3, and December 26, 1996, respectively. The enclosed revision was approved by the Salem Assessment Panel (SAP) in SAP meeting 97-07 and includes the following:

- A technical item was added to address NRC concerns with the adequacy of of ECCS Swapover methodology, available Residual Heat Removal Pump Net Position Suction Head, and Technical Specification changes for hot leg injection valve 2RH26.

- The entire RAP was reviewed and updated, where appropriate.

The status of the restart items reflects inspections up to and including 50-311/97-07. It also includes inspection report 50-311/97-11.

If you have any questions or comments on our restart plan, please contact Mr. G. S. Barber (610-337-5232).

James C. Linville, Chief
Projects Branch 3
Division of Reactor Projects

Enclosure:
NRC Restart Action Plan

Docket Nos. 50-272; 50-311

9706100277 26PP

A117

cc w/encl:
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E. Simpson, Senior Vice President - Nuclear Engineering
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D. Garchow, General Manager - Salem Operations
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Inspection Program Branch, NRR (IPAS)

RESTART PROCESS CHECKLIST

Revision: 3
Date: 6/97

I. INITIAL NRC RESPONSE:

	TASK	STATUS
a.	Initial notification and NRC management discussion of known facts and issues **[Region I]**	SMM 1/95
b.	Identify/implement additional inspections (i.e. AIT, IIT, or Special) **[Region I]**	SIT 95-80
c.	Determine need for formal regulatory response (i.e. Order or CAL) **[Region I]**	CAL Issued 6/9/95
d.	Determine need for senior management involvement **[NRR & Region I]**	SMM 3/21/95 met w/PSE&G
e.	Identify other parties involved i.e. NRC Organizations, other Federal agencies, industry organizations **[NRR & Region I]**	NRR/RI FEMA

II. **NOTIFICATIONS:**

	TASK	STATUS
a.	Issue Daily and Directors Highlight **[NRR]**	N/A
b.	Issue Morning Report **[Region I]**	N/A
c.	Conduct Commissioner Assistants' Briefing **[NRR]**	N/A
d.	Issue Commission Paper **[NRR]**	N/A
e.	Cognizant Federal agencies notified (i.e. FEMA, EPA, DOJ, DOL) **[NRR]**	N/A
f.	State and Local Officials notified **[Region I]**	N/A
g.	Congressional notification **[NRR]**	N/A

RESTART PROCESS CHECKLIST

Revision: 3
Date: 6/97

III. ESTABLISH AND ORGANIZE THE NRC REVIEW PROCESS:

TASK	STATUS
a. Establish the Restart Panel (Salem Assessment Panel (SAP)) **[Region I]**	7/6/95
b. Assess available information (i.e. inspection results, licensee self-assessments, industry reviews) **[SAP]**	Complete
c. Conduct Regional Administrator Briefing **[SAP]**	8/7/95
d. Conduct NRR Executive Team Briefing **[NRR]**	10/95
3. Develop the Case Specific Checklist **[SAP]**	2/23/96
f. Develop the Restart Action Plan **[SAP]**	2/23/96
g. Regional Administrator approves Restart Action Plan **[Region I]**	2/23/96
h. NRR Associate Director and/or NRR Director approves Restart Action Plan **[NRR]**	2/23/96
i. Implement Restart Action Plan **[SAP]**	1996
j. Modify CAL/Order as necessary **[Region I]**	Pending [1]
k. Obtain input from involved parties both within NRC and other Federal agencies such as FEMA, EPA, DOJ, DOL	FEMA

[1] The June 9, 1995 CAL was written in a manner that assumed concurrent restart of both units. After the discovery of Salem Unit 1 steam generator tube integrity concerns in February 1996, the licensee elected to make Salem Unit 2 the lead unit for restart. Once all necessary licensee actions are complete, the NRC will modify the CAL to reflect these circumstances.

IV. REVIEW IMPLEMENTATION:

IV.1 Root Causes and Corrective Actions:

TASK	STATUS
a. Evaluate findings of Special Team Inspection [SAP]	IR95-10 IR95-80 Ongoing
b. Licensee performs root cause analysis and develops corrective action plan for root causes [SAP]	CAL Item #1
c. NRC evaluates licensee's root cause determination and corrective action plan [SAP]	Ongoing

IV.2 Assessment of Equipment Damage:

TASK	APPLICABLE
a. Licensee assesses damage to systems and components	N/A
b. NRC evaluates licensee damage assessment	N/A
c. Licensee determines corrective actions	N/A
d. NRC evaluates corrective actions	N/A

IV.3 Determine Restart Issues and Resolution:

	TASK	STATUS
a.	Review/evaluate licensee generated restart issues **[SAP]**	Complete
b.	Independent NRC identification of restart issues (consider sources external to NRC and licensee) **[SAP]**	Complete
c.	NRC/licensee agreement on restart issues **[SAP]**	Complete
d.	Evaluate licensee's restart issues implementation process **[SAP]**	Ongoing
e.	Evaluate licensee's implementation verification process **[SAP]**	IR 96-08 IR 96-12
f.	Evaluate NRC open item backlog and Licensee commitments to NRC for potential restart issues **[SAP]**	Ongoing
g.	Evaluate open allegations for potential restart issues **[SAP]**	Ongoing
h.	Evaluate the Restart Readiness Team Inspection findings **[SAP]**	To Be Determined

IV.4 Obtain Comments and determine Restart Issues and their Resolution:

	TASK	STATUS
a.	Obtain public comments **[SAP]**	12/18/95 Meeting with Public
b.	Obtain comments from State and Local Officials **[SAP]**	1/3/96 & 1/19/96 mtgs w/NJ Del. contacted separately
c.	Obtain comments from applicable Federal agencies **[NRR]**	10/31/96 FEMA

IV.5 Closeout Actions:

	TASK	STATUS
a.	Evaluate licensee's restart readiness self-assessment **[SAP]**	Updated SIRA IR 96-08
b.	Restart issues closed **[SAP]**	Open
c.	Conduct NRC Restart Assessment Team Inspection **[Region I]**	Open
d.	Issue Augmented Restart Coverage Inspection Plan **[Region I]**	Open
e.	Comments from other parties considered **[SAP]**	Open
f.	Determine that all conditions of the Order/CAL are satisfied **[SAP]**	Open
g.	Re-review of Generic Restart Checklist complete **[SAP]**	Open

V. RESTART AUTHORIZATION:

	TASK	STATUS
a.	Prepare restart authorization document and basis for restart **[SAP]**	Open
b.	NRC Restart Panel recommends restart **[SAP]**	Open
c.	No restart objections from other applicable HQ offices **[NRR]**	Open
d.	No restart objections from applicable Federal agencies **[NRR]**	Open
e.	Regional Administrator concurs in restart **[Region I]**	Open
f.	NRR Associate Director and/or NRR Director Concurs in restart **[NRR]**	Open
g.	Regional Administrator agrees with restart **[Region I]**	Open

VI. RESTART AUTHORIZATION NOTIFICATION:

TASK	STATUS
a. Commission [NRR]	Open
b. EDO [NRR]	Open
c. Congressional Affairs [NRR]	Open
d. ACRS [NRR]	Open
e. Applicable Federal agencies [NRR]	Open FEMA
f. Public Affairs [Region I]	Open
g. State and Local Officials [Region I]	Open

RESTART ISSUE CHECKLIST

Revision: 3
Date: 6/97

I. CONFIRMATORY ACTION LETTER RESTART ISSUES

RESTART ISSUE (Licensee)	Resp. Org.	Reference	Date Closed
1. PSE&G to perform a Significant Event Response Team (SERT) review of the circumstances leading to, and causing the Salem Unit 2 reactor trip, and communicate the findings to the NRC.[1]	SAP	6/9/95 CAL	Updated IR 96-18
2. PSE&G to perform a special review of long-standing equipment reliability and operability issues, including corrective maintenance and operator workarounds; the effectiveness and quality of management oversight and review of these matters; and communicate the findings to the NRC.	SAP	6/9/95 CAL	2/13/96
3. Conduct a meeting with the NRC to describe, discuss and gain NRC agreement on the scope and comprehensiveness of the PSE&G plan for the performance of an operational readiness review of each unit, including the description of issues required to be resolved prior to restart.	SAP	6/9/95 CAL	2/13/96
4. PSE&G to conduct an operational readiness review at each Salem unit.	SAP	6/9/95 CAL	Updated SIRA IR 96-08
5. Participate in management meetings with the NRC staff, open for public observation, to describe the outcome and conclusions of the operational readiness review for each unit.	SAP	6/9/95 CAL	Open
6. When PSE&G is ready in all respects for restart of the facility, they are to provide a letter to the Regional Administrator certifying that fact.	SAP	6/9/95 CAL	Open
7. Obtain the agreement of the Regional Administrator prior to restart of each Salem unit.	SAP	6/9/95 CAL	Open

[1] Adequacy of corrective actions will be verified consistent with technical restart item 43 and the closure of all nine of PSE&G's restart plans based on the NRC's August 5, 1996 letter to PSE&G.

II. TECHNICAL RESTART ISSUES

TECHNICAL ISSUE	Resp. Org	Reference	Status
1. Cont. Spray Dsch Vlv (CS-2) Operability. Calculations indicate actual d/p may be greater than design d/p.	DRS	URI 92-01-04	**Closed** IR 96-07
2. Reliability of Control Air System. Requires operator action to start backup compressor.	DRP	IR 94-19, 24 & 35	**Closed** IR 96-06 IR 96-07 IR 96-08 IR 96-17
3. CW Screen Motor Reliability. No automatic motor operation, vulnerable to grass intrusion	DRP	IR 95-10	**Closed** IR 96-07
4. Digital feedwater installation to correct feedwater control reliability.	DRS	IR 94-13	Updated IR 96-06
5. Moisture in EDG air start system causes reliability problem with check valves.	DRP	IR 94-19	**Closed** IR 96-15
6. EDG output breakers fail to close when switch taken to close.	DRS	IR 95-10	**Closed** IR 96-10 IR 96-20
7. EDG has minimal load margin.	DRS	URI 93-82-04	Updated IR 96-13
8. EDSFI Followup Issues	DRS	IR 93-082	Updated IR 96-10
9. Cracked exhaust steam piping could indicate weak erosion/control program.	DRS	No reference	**Closed** IR 96-10
10. Feedwater nozzle bypass flow introduced error in calorimetric and power level.	DRS	URI 94-24-04	**Closed** IR 96-10
11. EDG 1A load fluctuations.	DRS	URI 94-018-02	**Closed** IR 96-13
12. Review adequacy of fuse control program.	DRS	IR 95-10	**Closed** Unit 2 Open Unit 1 IR 96-16 IR 97-02

TECHNICAL ISSUE	Resp. Org	Reference	Status
13. Review gas turbine batteries degrading with loss of one source of offsite power. Turbine referenced in TS basis to support SW outages.	DRS	IR 95-13	**Closed** IR 96-20
14. Hagan module replacement project.	DRS	IR 94-80, 95-02	**Closed** IR 96-20 IR 97-02
15. Procedure contains non-conservative 125V battery acceptance criteria.	DRS	URI 94-18-01	**Closed** IR 96-07
16. NRC & QA identified numerous IST program deficiencies.	DRS	URI 94-21-01, 02 & 03	Updated IR 96-20
17. Main condenser steam dumps malfunction, requires closing MSIVs on trip and prevents use of main condenser.	DRP	URI 94-08-01	**Closed** IR 96-08 IR 96-18
18. Poor reliability of PDP charging pumps.	DRP	No reference	U1-Updated U2- **Closed** IR 96-12
19. Poor process for configuration control of pipe supports.	DRP	URI 95-06-01	U2-Only **Closed** IR 96-20
20. POPS ability to mitigate overpressure events.	DRS	Vio 94-032-05	**Closed** IR 97-02
21. Wiring separation & redundancy concerns with RG 1.97 instruments & cable separation	DRS	URI 89-13-07 & 90-81-13*	Updated IR 97-02
22. PORV (1PR1) seat leakage, requiring block valve closure.	DRP	IR 94-35	**Closed** IR 96-12
23. Undersized PORV accumulators.	DRS	IR 95-13	Updated IR 96-18
24. Gate valves identified susceptible to press lock & thermal binding.	DRS	URI 93-026-01	U2-Only **Closed** IR 96-07 IR 96-20
25. Pressurizer Spray Problems/Use of Aux Spray	DRP	IR 95-13	**Closed** IR 96-13 IR 96-20

TECHNICAL ISSUE	Resp. Org	Reference	Status
26. Radiation monitor problems.	DRS	IR 94-24	Open
27. Rx coolant pump oil collection system deficiencies.	DRS	IR 94-33 & 94-35	U2-Only **Closed** IR 96-20
28. Understand causes and corrective actions for failures of Rx coolant pump seals.	DRP	IR 94-32 & 95-02	**Closed** IR 96-07
29. Rx Head Vent Valve Stroke Times.	DRP	VIO 95-02	**Closed** IR 96-07
30. RHR Min-flow Valve (RH29) Failures on unit 2.	DRP	VIO 95-10	**Closed** IR 96-12 IR 96-20
31. RHR Dsch Valve (21RH10) Banging Noise.	DRP	IR 95-10	**Closed** IR 96-08
32. Review program for control & inspecting resilient fire barrier seals.	DRS	No reference	**Closed** IR 96-10
33. Control rods stepping with no temperature error signal.	DRS	IR 94-19	Updated IR 96-10
34. Numerous SI pump deficiencies. ECCS Pump Re[illegible]ds.	DRP	IR 95-13	**Closed** IR 96-08 IR 96-18 U2 Only
35. Verify adequate protection for SI Pump runout.	DRS	IR 95-13.	**Closed** IR 96-10 IR 96-20
36. SI relief valves performance history of leaking and lifting.	DRP	IR 94-13, 31 & 95-01	**Closed** Unit 2 Open Unit 1 IR 96-17
37. Review corrective action for service water pipe erosion.	DRS	IR 95-07	**Closed** IR 96-07
38. Spurious high steam flow signals causing SI.	DRS	EA #94-112-010103	Updated IR 96-07
39. Review corrective actions to resolve numerous switchyard failures.	DRS	IR 94-31	**Closed** IR 96-20

TECHNICAL ISSUE	Resp. Org	Reference	Status
40. Verify adequate correction for overhead annunciator failures.	DRS	IR 95-17	**Closed** IR 96-06 IR 96-13
41. Verify adequate corrective action to ensure steam generator tube integrity.	DRS	IR 95-17	Updated IR 97-05
42. Auxiliary Feedwater System Performance and Reliability.	DRS	No Reference	**Closed** IR 96-06 IR 96-17 IR 96-18 U2 Only
43. Adequacy of corrective actions from the Salem Unit 2 reactor trip.	DRP	6/9/95 CAL	**Closed** IR 96-08 IR 96-18
44. Adequacy of ECCS Swapover methodology, available RHR NPSH, and TS changes for 2RH26.	DRS	SAP Meeting 97-04 (4/14/97)	Updated IR 97-11

III.a. PROGRAMMATIC RESTART ISSUES

	RESTART ISSUE (Licensee)	Resp. Org.	Reference	Status
1.	Resolve Appendix R jumpers and program discrepancies, including fire barrier penetrations.	NRR	NOTE[2]	Updated IR 97-03
2.	Review efforts to maintain configuration control, given examples from Hagan modules and bolting. Effort to include setpoint control program and drawing control.	DRS	NOTE[1]	Updated IR 96-06 IR 96-16
3.	Adequacy and use of procedures, including procedure revision backlog.	DRP	NOTE[1]	**Closed** IR 96-06 IR 96-07 IR 96-08 IR 97-03
4.	Management of engineering and maintenance backlog.	DRP/ RATI	NOTE[1]	**Closed** IR 96-18 U2 Only
5.	Program for foreign material exclusion.	DRP	NOTE[1]	**Closed** IR 96-06 IR 96-08 IR 97-07
6.	Operability determinations.	DRP	NOTE[1]	**Closed** IR 96-06 IR 96-07 IR 96-08 IR 97-03
7.	Operator performance (Coordination and Communication)	DRS	NOTE[1]* & 10/03/95 RA Visit	**Closed** IR 96-07 IR 96-08 IR 96-13 IR 96-15 IR 97-03
8.	Correction of operator workarounds, including control room deficiencies.	DRP	NOTE[1]	**Closed** IR 96-07 IR 96-18

[2]The Salem Assessment Panel developed these programmatic restart issues by reviewing licensee performance documented in inspection reports, SALPS, enforcement actions and licensee corrective action programs. These items were approved during the October 6, December 6, 1995 and January 3, and 31, 1996 SAP meetings.

III.a. PROGRAMMATIC RESTART ISSUES

- continued -

RESTART ISSUE (Licensee)	Resp. Org.	Reference	Status
9. Program to utilize operating (industry) experience feedback.	DRP	NOTE[1] & 1/3 & 1/19/96 State Meetings	**Closed** IR 96-07 IR 96-15
10. Corrective action program, including adequacy of root cause program.	DRP	NOTE[1]	**Closed** IR 96-08 IR 96-15 IR 96-18
11. Engineering contribution to problem resolution, including safety evaluations.	DRP	NOTE[1]	Updated IR 96-06 IR 96-07 IR 96-13 IR 96-16
12. Tagging	DRP	NOTE[1]	**Closed** IR 97-07
13. Adequacy of Emergency Preparedness	DRS	NOTE[1]	**Closed** IR 96-18 Exec Summ
14. Resolution of licensing commitments.	NRR	NOTE[1] & 1/3 1/19/96 State Mtgs.	Updated IR 97-03
15. Adequacy of Emergency Operating Procedures.	DRS	NOTE[1]	**Closed** IR 96-08
16. Adequacy of training.	DRS	NOTE[1]	**Closed** IR 96-08
17. Adequacy of work control and planning program.	DRS	NOTE[1]	**Closed** IR 97-03
18. Parts availability & accuracy of bill of materials	DRS	NOTE [1] & IR 95-02	**Closed** IR 96-20 IR 97-02
19. Adequacy of Licensing Basis Conformance FSAR Discrepancies specifically including Service Water System design and reliability	DRP	NOTE[1]	Updated IR 96-06

RESTART ISSUE CHECKLIST

Revision: 3
Date: 6/97

RESTART ISSUE (Licensee)	Resp. Org.	Reference	Status
20. Adequacy of QA program (Receptiveness to documented deficiencies)	DRP	12/18/95 Public Meeting	**Closed** IR 96-06 IR 96-07 IR 96-18
21. Licensee self assessment capability (Performance monitoring & trending)	DRP	NOTE ' & 1/3 & 1/19/96 State Meetings	**Closed** IR 96-06 IR 97-07
22. Integrated Test Program	DRS	96-06 SAP Mtg	Updated IR 96-21 IR 97-04 IR 97-06
23. Adequacy of Motor Operated Valve Program	DRS	IR 96-11 & 96-01 SAP Mtg	**Closed** IR 97-03
24. Adequacy of Security Program	DRS	IR 96-14 & 96-08 SAP Mtg	**Closed** IR 97-07

III.b. LICENSEE RESTART PLANS

RESTART PLANS (Licensee)	Resp. Org.	Reference	Status
1. Conduct of Operations	DRP	96-05 SAP Mtg	**Closed** IR 96-18 IR 97-03
2. Reliable Maintenance	DRP	96-05 SAP Mtg	**Closed** IR 97-03
3. Work Control Process Improvement	DRP	96-05 SAP Mtg	**Closed** IR 97-03
4. System Engineering and Equipment Reliability	DRS	96-05 SAP Mtg	Open
5. Engineering Performance	DRS	96-05 SAP Mtg	**Closed** IR 97-05
6. Organizational Self Assessment	NRR	96-05 SAP Mtg	**Closed** IR 97-07
7. Corrective Action	DRP	96-05 SAP Mtg	**Closed** IR 96-18
8. Human Performance Management	NRR	96-05 SAP Mtg	**Closed** IR 97-07
9. Accredited Training	DRS	96-05 SAP Mtg	**Closed** IR 96-08

IV. RESTART READINESS ASSESSMENT CHECKLIST

IV.1. ASSESSMENT OF ROOT CAUSE IDENTIFICATION AND CORRECTION

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ROOT CAUSE ASSESSMENT	SAP	Open
Applicable Items - Conditions requiring the shutdown are clearly understood - Root causes of the conditions requiring the shutdown are clearly understood - Root causes of other significant problems are clearly understood - Evaluate adequacy of the root cause analysis program		
2. CORRECTIVE ACTIONS	SAP	Open
Applicable Items - Evaluate adequacy of the comprehensive corrective action plan - Evaluate adequacy of the corrective action programs for specific root causes - Assess control of corrective action item tracking - Effective corrective actions for the conditions requiring the shutdown have been implemented - Effective corrective actions for other significant problems have been implemented - Adequacy of the corrective action verification process		
3. SELF-ASSESSMENT CAPABILITY	SAP	Open
Applicable Items - Adequacy of licensee's startup self-assessment - Effectiveness of Quality Assurance Program - Adequacy of Industry Experience Review Program - Adequacy of licensee's Independent Review Groups - Adequacy of deficiency reporting system - Staff willingness to raise concerns - Effectiveness of PRA usage - Adequacy of Commitment Tracking Program - Utilization of external audits (i.e. INPO) - Quality and timeliness of 10 CFR 50.72 and 50.73 Reports - Effectiveness of Line Organization Self-Assessments		

IV.2. ASSESSMENT OF LICENSEE MANAGEMENT

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. MANAGEMENT OVERSIGHT AND EFFECTIVENESS	SAP	Open

Applicable Items

- Management commitment to achieving improved performance
- Performance goals/expectations developed for the staff
- Goals/expectations communicated to the staff
- Resources available to management to achieve goals
- Qualification and training of management
- Management's commitment to procedure adherence
- Management involvement in self-assessment and independent self-assessment capability
- Effectiveness of management review committees
- Effectiveness of internal management meetings
- Management in-plant time
- Management's awareness of day-to-day operational concerns
- Ability to identify and prioritize significant issues
- Ability to coordinate resolution of operability and other significant issues
- Ability to implement effective corrective actions

2. MANAGEMENT ORGANIZATION AND SUPPORT	SAP	Open

Applicable Items

- Structure of the organization
- Ability to adequately staff the organization
- Effect of any management reorganization
- Establishment of proper work environment
- Ability to foster teamwork among the staff
- Ability to resolve emplovee concerns
- Ability to provide engineering support
- Adequacy of plant administrative procedures
- Amount of contractor usage
- Adequacy of contractor oversight
- Information exchange with other utilities
- Participation in industry groups
- Ability to function in the Emergency Response Organization
- Coordination with offsite emergency planning officials

IV.3. ASSESSMENT OF PLANT AND CORPORATE STAFF

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ASSESSMENT OF STAFF	SAP	Open
Applicable Items - Staff commitment to achieving improved performance - Staff's safety consciousness - Understanding of management's expectations/goals - Understanding of plant issues and corrective actions - Morale - Structure of the organization - Effect on the staff of any reorganization - Qualifications and training of the staff - Staff's work environment - Level of attention to detail - Adequacy of staffing - Off-hour plant staffing - Staff overtime usage - Amount of contractor usage - Staff/contractor relationship - Procedure usage/adherence		
2. ASSESSMENT OF CORPORATE SUPPORT	SAP	Open
Applicable Items - Relationship between corporate and the plant staff - Adequacy of the request for corporate services process - Corporate understanding of plant issues - Corporate staff in plant time - Effectiveness of the corporate/plant interface meetings - Adequacy of corporate representation at plant activities - Adequacy of corporate engineering support - Adequacy of corporate design changes - Adequacy of licensing support		

IV.3. ASSESSMENT OF PLANT AND CORPORATE STAFF

- continued -

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
3. OPERATOR ISSUES	SAP	Open

Applicable Items

- Licensed operator staffing meets requirements and licensee goals
- Level of formality in the control room
- Adequacy of requalification training
- Adequacy of equipment operability determination training
- Adequacy of SRO command and control
- Control room/plant operator awareness of equipment status
- Adequacy of plant operating procedures
- Procedure usage/adherence
- Log keeping practices

IV.4. ASSESSMENT OF PHYSICAL READINESS OF THE PLANT

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ASSESSMENT OF PHYSICAL READINESS OF THE PLANT	SAP	Open

Applicable Items

- Operability of technical specifications systems
- Operability of required secondary and support systems
- Results of pre-startup testing
- Adequacy of system lineups
- Adequacy of surveillance tests/test program
- Significant hardware issues resolved
- Adequacy of the power ascension testing program
- Adequacy of plant maintenance program effectiveness
- Maintenance backlog managed and impact on operation assessed
- Adequacy of plant housekeeping and equipment storage
- Adequacy of onsite and offsite emergency preparedness

IV.5. ASSESSMENT OF COMPLIANCE WITH REGULATORY REQUIREMENTS

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ASSESSMENT OF COMPLIANCE WITH REGULATORY REQUIREMENTS	SAP	Open

Applicable Items

- Applicable license amendments have been issued
- Applicable exemptions have been granted
- Applicable reliefs have been granted
- Confirmatory Action Letter conditions have been satisfied
- Significant enforcement issues have been resolved
- Allegations have been appropriately addressed

IV.6. COORDINATION WITH INTERESTED AGENCIES/PARTIES

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. COORDINATION WITH INTERESTED AGENCIES/PARTIES	SAP	Open

Applicable Items

- Federal Emergency Management Agency
- Appropriate State and Local Officials
- Appropriate Public Interest Groups
- Local News Media

ATTACHMENT 2

SALEM UNITS 1 & 2 RESTART ACTIVITIES

Major Milestones

The activities listed below comprise the major activities that must be completed prior to the restart of the Salem units.

- NRC approve Salem restart plan.
- NRC perform inspections to evaluate the adequacy of Salem restart activities.
- PSE&G conduct an operational readiness review for each Salem unit.
- PSE&G present the results of their readiness review in a management meeting with NRC open to public observation.
- NRC conduct a meeting with the public to solicit their input.
- NRC conduct a Restart Assessment Team Inspection (RATI).
- NRC internally reviews results of RATI and makes appropriate recommendations regarding Salem unit restarts to NRC Regional Administrator.
- If results are acceptable, NRC will approve PSE&G release from the Confirmatory Action Letter. If further PSE&G action is necessary, communicate it to PSE&G and amend NRC plan, as necessary.

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

August 6, 1997

Mr. Leon R. Eliason
Chief Nuclear Officer & President
Nuclear Business Unit
Public Service Electric and Gas Company
P. O. Box 236
Hancocks Bridge, New Jersey 08038

SUBJECT: **NRC RESTART ACTION PLAN - REVISION 4**

Dear Mr. Eliason:

Enclosed is the Revision 4 to NRC's Restart Action Plan (RAP) for Salem Units 1 and 2. The RAP was originally published on February 23, 1996 to describe NRC's planned monitoring activities for restart of the Salem units. Revision 1, 2, and 3 of NRC's RAP were sent to you on August 3, 1996, December 26, 1996, and June 4, 1997, respectively. The enclosed revision was reviewed and approved by the Salem Assessment Panel (SAP) in SAP meetings 97-07 & 97-08 and includes the following:

- A continuation of the line-by-line review of all restart items which originally began in SAP meeting 96-11, dated December 6, 1996. This included special focus on open restart issues and other issues that had the potential to impact on Salem Unit 2 restart. Although additional corrective actions may be necessary, the SAP is satisfied that adequate performance improvement has been achieved to support restart of Salem Unit 2.

- A technical item was added to address a Containment Fan Cooler Modification (CFCU) that was installed to prevent water hammer. Your actions on this matter have been reviewed and found acceptable. See item II.45.

- The entire RAP was reviewed and updated, where appropriate. You should also note that a number of items remain open for Salem Unit 1 restart and will have to be addressed in the future. If no unit designator is provided, the SAP considers the matter closed for both units.

The status of the restart items reflects inspections up to and including 50-311/97-12.

If you have any questions or comments on our restart plan, please contact Mr. G. S. Barber (610-337-5232).

Sincerely,

James C. Linville, Chief
Projects Branch 3
Division of Reactor Projects

9708180215 27pp

A/18

Enclosure:
NRC Restart Action Plan

Docket Nos. 50-272; 50-311

cc w/encl:
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RESTART PROCESS CHECKLIST

Revision: 4
Date: 7/97

I. INITIAL NRC RESPONSE:

	TASK	STATUS
a.	Initial notification and NRC management discussion of known facts and issues [Region I]	SMM 1/95
b.	Identify/implement additional inspections (i.e. AIT, IIT, or Special) [Region I]	SIT 95-80
c.	Determine need for formal regulatory response (i.e. Order or CAL) [Region I]	CAL Issued 6/9/95
d.	Determine need for senior management involvement [NRR & Region I]	SMM 3/21/95 met w/PSE&G
e.	Identify other parties involved i.e. NRC Organizations, other Federal agencies, industry organizations [NRR & Region I]	NRR/RI FEMA

II. NOTIFICATIONS:

	TASK	STATUS
a.	Issue Daily and Directors Highlight [NRR]	N/A
b.	Issue Morning Report [Region I]	N/A
c.	Conduct Commissioner Assistants' Briefing [NRR]	N/A
d.	Issue Commission Paper [NRR]	N/A
e.	Cognizant Federal agencies notified (i.e. FEMA, EPA, DOJ, DOL) [NRR]	N/A
f.	State and Local Officials notified [Region I]	N/A
g.	Congressional notification [NRR]	N/A

RESTART PROCESS CHECKLIST

Revision: 4
Date: 7/97

III. ESTABLISH AND ORGANIZE THE NRC REVIEW PROCESS:

TASK	STATUS
a. Establish the Restart Panel (Salem Assessment Panel (SAP)) [Region I]	7/6/95
b. Assess available information (i.e. inspection results, licensee self-assessments, industry reviews) [SAP]	Complete
c. Conduct Regional Administrator Briefing [SAP]	8/7/95
d. Conduct NRR Executive Team Briefing [NRR]	10/95
3. Develop the Case Specific Checklist [SAP]	2/23/96
f. Develop the Restart Action Plan [SAP]	2/23/96
g. Regional Administrator approves Restart Action Plan [Region I]	2/23/96
h. NRR Associate Director and/or NRR Director approves Restart Action Plan [NRR]	2/23/96
i. Implement Restart Action Plan [SAP]	1996
j. Modify CAL/Order as necessary [Region I]	Complete[1]
k. Obtain input from involved parties both within NRC and other Federal agencies such as FEMA, EPA, DOJ, DOL	FEMA

[1]The June 9, 1995 CAL was written in a manner that assumed concurrent restart of both units. After the discovery of Salem Unit 1 steam generator tube integrity concerns in February 1996, the licensee elected to make Salem Unit 2 the lead unit for restart. Since necessary licensee actions are complete, the NRC modified the CAL to allow Salem Unit 2 restart.

IV. REVIEW IMPLEMENTATION:

IV.1 Root Causes and Corrective Actions:

	TASK	STATUS
a.	Evaluate findings of Special Team Inspection [SAP]	IR95-10 IR95-80 Complete
b.	Licensee performs root cause analysis and develops corrective action plan for root causes [SAP]	Closed[2] per CAL Item #1
c.	NRC evaluates licensee's root cause determination and corrective action plan [SAP]	Closed[3] per CAL Items #2 & #3

IV.2 Assessment of Equipment Damage:

	TASK	APPLICABLE
a.	Licensee assesses damage to systems and components	N/A
b.	NRC evaluates licensee damage assessment	N/A
c.	Licensee determines corrective actions	N/A
d.	NRC evaluates corrective actions	N/A

[2]In an August 5, 1996, letter from NRC to PSE&G, the staff agreed to use the closure of all nine restart plans as a basis for closing CAL Item #1. In NRC inspection report 50-272&311/97-08, the last licensee restart plan was reviewed and closed. Thus, CAL Item #1 was also closed.

[3]In a February 13, 1996 letter from NRC to PSE&G, the staff accepted the licensee's overall restart plan which closed this item.

IV.3 Determine Restart Issues and Resolution:

	TASK	STATUS
a.	Review/evaluate licensee generated restart issues [SAP]	Complete
b.	Independent NRC identification of restart issues (consider sources external to NRC and licensee) [SAP]	Complete
c.	NRC/licensee agreement on restart issues [SAP]	Complete
d.	Evaluate licensee's restart issues implementation process [SAP]	Complete
e.	Evaluate licensee's implementation verification process [SAP]	IR 96-08 IR 96-12
f.	Evaluate NRC open item backlog and Licensee commitments to NRC for potential restart issues [SAP]	Complete Unit 2 Only
g.	Evaluate open allegations for potential restart issues [SAP]	Complete Unit 2 Only
h.	Evaluate the Restart Readiness Team Inspection findings [SAP]	Complete

IV.4 Obtain Comments and determine Restart Issues and their Resolution:

	TASK	STATUS
a.	Obtain public comments [SAP]	12/18/95 Meeting with Public
b.	Obtain comments from State and Local Officials [SAP]	1/3/96 & 1/19/96 mtgs w/NJ Del. contacted separately
c.	Obtain comments from applicable Federal agencies [NRR]	10/31/96 FEMA

IV.5 Closeout Actions:

	TASK	STATUS
a.	Evaluate licensee's restart readiness self-assessment [SAP]	Complete
b.	Restart issues closed [SAP]	Complete
c.	Conduct NRC Restart Assessment Team Inspection [Region I]	Complete
d.	Issue Augmented Restart Coverage Inspection Plan [Region I]	Complete
e.	Comments from other parties considered [SAP]	Complete[4]
f.	Determine that all conditions of the Order/CAL are satisfied [SAP]	Complete
g.	Re-review of Generic Restart Checklist complete [SAP]	Complete

[4]The states of New Jersey and Delaware have been contacted and have no objections to Salem Unit 2 restart. Public comments made at meetings on March 4, 1997 and May 28, 1997 have been addressed.

V. RESTART AUTHORIZATION:[5]

	TASK	STATUS
a.	Prepare restart authorization document and basis for restart [SAP]	Complete
b.	NRC Restart Panel recommends restart [SAP]	Complete
c.	No restart objections from other applicable regional and HQ offices [Region 1 and NRR]	Closed
d.	No restart objections from applicable Federal agencies [NRR]	Closed[6]
e.	Regional Administrator concurs in restart [Region I]	Closed
f.	NRR Associate Director and/or NRR Director Concurs in restart [NRR]	Closed
g.	Regional Administrator agrees with restart [Region I]	Closed

[5]The status provided in Revision 4 is for Salem Unit 2 only. Salem Unit 1 status will be addressed in the future.

[6]The Department of Labor, Department of Justice, and the Federal Emergency Management Agencies have been contacted and have no objections to Salem Unit 2 restart.

VI. RESTART AUTHORIZATION NOTIFICATION:[7]

TASK	STATUS
a. Commission [NRR]	Closed
b. EDO [NRR]	Closed
c. Congressional Affairs [NRR]	Closed
d. ACRS [NRR]	Closed
e. Applicable Federal agencies [NRR]	Closed
f. Public Affairs [Region I]	Closed
g. State and Local Officials [Region I]	Closed

RESTART ISSUE CHECKLIST

Revision: 4
Date: 7/97

I. CONFIRMATORY ACTION LETTER RESTART ISSUES

RESTART ISSUE (Licensee)	Resp. Org.	Reference	Date Closed
1. PSE&G to perform a Significant Event Response Team (SERT) review of the circumstances leading to, and causing the Salem Unit 2 reactor trip, and communicate the findings to the NRC.[7]	SAP	6/9/95 CAL	**Closed** IR 96-18 IR 97-08
2. PSE&G to perform a special review of long-standing equipment reliability and operability issues, including corrective maintenance and operator workarounds; the effectiveness and quality of management oversight and review of these matters; and communicate the findings to the NRC.	SAP	6/9/95 CAL	**Closed** - 2/13/96 Ltr
3. Conduct a meeting with the NRC to describe, discuss and gain NRC agreement on the scope and comprehensiveness of the PSE&G plan for the performance of an operational readiness review of each unit, including the description of issues required to be resolved prior to restart.	SAP	6/9/95 CAL	**Closed** 2/13/96 Ltr
4. PSE&G to conduct an operational readiness review at each Salem unit.	SAP	6/9/95 CAL	**Closed** 5/28/96 Ltr
5. Participate in management meetings with the NRC staff, open for public observation, to describe the outcome and conclusions of the operational readiness review for each unit.	SAP	6/9/95 CAL	**Closed**- Unit 2 Only 6/9/97 Mtg
6. When PSE&G is ready in all respects for restart of the facility, they are to provide a letter to the Regional Administrator certifying that fact.	SAP	6/9/95 CAL	**Closed**- Unit 2 Only 6/27/97 Ltr
7. Obtain the agreement of the Regional Administrator prior to restart of each Salem unit.	SAP	6/9/95 CAL	**Closed**- Unit 2 Only

[7]Adequacy of corrective actions will be verified consistent with technical restart item 43 and the closure of all nine of PSE&G's restart plans based on the NRC's August 5, 1996 letter to PSE&G.

RESTART ISSUE CHECKLIST

Revision: 4
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II. TECHNICAL RESTART ISSUES

	TECHNICAL ISSUE	Resp. Org	Reference	Status
1.	Cont. Spray Dsch Vlv (CS-2) Operability. Calculations indicate actual d/p may be greater than design d/p.	DRS	URI 92-01-04	**Closed** IR 96-07
2.	Reliability of Control Air System. Requires operator action to start backup compressor.	DRP	IR 94-19, 24 & 35	**Closed** IR 96-06 IR 96-07 IR 96-08 IR 96-17
3.	CW Screen Motor Reliability. No automatic motor operation, vulnerable to grass intrusion	DRP	IR 95-10	**Closed** IR 96-07
4.	Digital feedwater installation to correct feedwater control reliability.	DRS	IR 94-13	U1-Open U2-**Closed** IR 97-06
5.	Moisture in EDG air start system causes reliability problem with check valves.	DRP	IR 94-19	U1-Open U2-**Closed** IR 96-15
6.	EDG output breakers fail to close when switch taken to close.	DRS	IR 95-10	**Closed** IR 96-10 IR 96-20
7.	EDG has minimal load margin.	DRS	URI 93-82-04	U1-Open U2-**Closed** IR 96-13 IR 97-05
8.	EDSFI Followup Issues	DRS	IR 93-082	U1-Open U2-**Closed** IR 96-10 IR 97-08
9.	Cracked exhaust steam piping could indicate weak erosion/control program.	DRS	No reference	U1-Open U2-**Closed** IR 96-10
10.	Feedwater nozzle bypass flow introduced error in calorimetric and power level.	DRS	URI 94-24-04	U1-Open U2-**Closed** IR 96-10

RESTART ISSUE CHECKLIST

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TECHNICAL ISSUE	Resp. Org	Reference	Status
11. EDG 1A load fluctuations	DRS	URI 94-18-02	**Closed** IR 96-13
12. Review adequacy of fuse control program.	DRS	IR 95-10	U1-Open U2-**Closed** IR 96-16 IR 97-02
13. Review gas turbine batteries degrading with loss of one source of offsite power. Turbine referenced in TS basis to support SW outages.	DRS	IR 95-13	**Closed** IR 96-20
14. Hagan module replacement project.	DRS	IR 94-80, 95-02	U1-Open U2-**Closed** IR 96-20 IR 97-02
15. Procedure contains non-conservative 125V battery acceptance criteria.	DRS	URI 94-18-01	**Closed** IR 96-07
16. NRC & QA identified numerous IST program deficiencies.	DRS	URI 94-21-01, 02 & 03	U1-Open U2 **Closed** IR 96-20 IR 97-05
17. Main condenser steam dumps malfunction, requires closing MSIVs on trip and prevents use of main condenser.	DRP	URI 94-08-01	U1-Open U2-**Closed** IR 96-08 IR 96-18
18. Poor reliability of PDP charging pumps.	DRP	No reference	U1-Open U2-**Closed** IR 96-12
19. Poor process for configuration control of pipe supports.	DRP	URI 95-06-01	U1-Open U2-**Closed** IR 96-20
20. POPS ability to mitigate overpressure events.	DRS	Vio 94-032-05	**Closed** IR 97-02

RESTART ISSUE CHECKLIST

Revision: 4
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TECHNICAL ISSUE	Resp. Org	Reference	Status
21. Wiring separation & redundancy concerns with RG 1.97 instruments & cable separation	DRS	URI 89-13-07 & 90-81-13	U1-Open U2-Closed IR 97-02 IR 97-07 IR 97-08
22. PORV (1PR1) seat leakage, requiring block valve closure.	DRP	IR 94-35	Closed IR 96-12
23. Undersized PORV accumulators	DRS	IR 95-13	Closed IR 96-18 IR 97-08
24. Gate valves identified susceptible to press lock & thermal binding.	DRS	URI 93-026-01	U1-Open U2-Closed IR 96-07 IR 96-20
25. Pressurizer Spray Problems/Use of Aux Spray	DRP	IR 95-13	Closed IR 96-13 IR 96-20
26. Radiation monitor problems.	DRS	IR 94-24	U1-Open U2-Closed IR 97-05
27. Rx coolant pump oil collection system deficiencies.	DRS	IR 94-33 & 94-35	U1-Open U2-Closed IR 96-20
28. Understand causes and corrective actions for failures of Rx coolant pump seals.	DRP	IR 94-32 & 95-02	Closed IR 96-07
29. Rx Head Vent Valve Stroke Times.	DRP	VIO 95-02	Closed IR 96-07
30. RHR Min-flow Valve (RH29) Failures on unit 2.	DRP	VIO 95-10	Closed IR 96-12 IR 96-20
31. RHR Dsch Valve (21RH10) Banging Noise.	DRP	IR 95-10	Closed IR 96-08
32. Review program for control & inspecting resilient fire barrier seals.	DRS	No reference	Closed IR 96-10

RESTART ISSUE CHECKLIST

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TECHNICAL ISSUE	Resp. Org	Reference	Status
33. Control rods stepping with no temperature error signal.	DRS	IR 94-19	U1-Open U2-Closed IR 96-10 IR 97-08
34. Numerous SI pump deficiencies. ECCS Pump Rebuilds.	DRP	IR 94-13	U1-Open U2-Closed IR 96-08 IR 96-18
35. Verify adequate protection for SI Pump runout.	DRS	IR 95-13.	U1-Open U2-Closed IR 96-10 IR 96-20
36. SI relief valves performance history of leaking and lifting	DRP	IR 94-13, 31 & 95-01	U1-Open U2-Closed IR 96-17
37. Review corrective action for service water pipe erosion.	DRS	IR 95-07	Closed IR 96-07
38. Spurious high steam flow signals causing SI.	DRS	EA #94-112-010103	Closed IR 96-07 IR 97-08
39. Review corrective actions to resolve numerous switchyard failures.	DRS	IR 94-31	Closed IR 96-20
40. Verify adequate correction for overhead annunciator failures.	DRS	IR 95-17	U1-Open U2-Closed IR 96-06 IR 96-13
41. Verify adequate corrective action to ensure steam generator tube integrity.	DRS	IR 95-17	Closed IR 97-05
42. Auxiliary Feedwater System Performance and Reliability.	DRS	No Reference	U1 Open U2 Closed IR 96-06 IR 96-17 IR 96-18

RESTART ISSUE CHECKLIST

Revision: 4
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TECHNICAL ISSUE	Resp. Org	Reference	Status
43. Adequacy of corrective actions from the Salem Unit 2 reactor trip.	DRP	6/9/95 CAL	Closed IR 96-08 IR 96-18
44. Adequacy of ECCS Swapover methodology, available RHR NPSH, and TS changes for 2RH26.	DRS	SAP Meeting 97-04 (4/14/97)	Closed IR 97-11 IR 97-12
45. Containment Fan Cooler Modification (CFCU) that was installed to prevent water hammer	DRS	SAP Meeting 97-05 (5/8/97)	U1-Open U2-Closed IR 97-10

RESTART ISSUE CHECKLIST

Revision: 4
Date: 7/97

III.a. PROGRAMMATIC RESTART ISSUES

	RESTART ISSUE (Licensee)	Resp. Org.	Reference	Status
1.	Resolve Appendix R jumpers and program discrepancies, including fire barrier penetrations.	NRR	NOTE[8]	U1-Open **U2-Closed** IR 97-03 IR 97-09 IR 97-12
2.	Review efforts to maintain configuration control, given examples from Hagan modules and bolting. Effort to include setpoint control program and drawing control.	DRS	NOTE[8]	**Closed** IR 96-06 IR 96-16 IR 97-08
3.	Adequacy and use of procedures, including procedure revision backlog.	DRP	NOTE[8]	**Closed** IR 96-06 IR 96-07 IR 96-08 IR 97-03
4.	Management of engineering and maintenance backlog.	DRP/ RATI	NOTE[8]	U1-Open **U2-Closed** IR 96-18
5.	Program for foreign material exclusion.	DRP	NOTE[8]	**Closed** IR 96-06 IR 96-08 IR 97-07
6.	Operability determinations.	DRP	NOTE[8]	**Closed** IR 96-06 IR 96-07 IR 96-08 IR 97-03

[8]The Salem Assessment Panel developed these programmatic restart issues by reviewing licensee performance documented in inspection reports, SALPS, enforcement actions and licensee corrective action programs. These items were approved during the October 6, December 6, 1995 and January 3, and 31, 1996 SAP meetings.

RESTART ISSUE CHECKLIST

Revision: 4
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III.a. PROGRAMMATIC RESTART ISSUES

- continued -

RESTART ISSUE (Licensee)	Resp. Org.	Reference	Status
7. Operator Performance (Coordination and Communication)	DRP	NOTE[9] & 10/3/95 RA Visit	**Closed** IR 96-07 IR 96-08 IR 96-13 IR 96-15 IR 97-03
8. Correction of operator workarounds, including control room deficiencies.	DRP	NOTE[9]	**Closed** IR 96-07 IR 96-18
9. Program to utilize operating (industry) experience feedback.	DRP	NOTE[9] & 1/3 & 1/19/96 State Meetings	**Closed** IR 96-07 IR 96-15
10. Corrective action program, including adequacy of root cause program.	DRP	NOTE[9]	**Closed** IR 96-08 IR 96-15 IR 96-18
11. Engineering contribution to problem resolution, including safety evaluations.	DRP	NOTE[9]	**Closed** IR 96-06 IR 96-07 IR 96-13 IR 96-16 IR 97-05 IR 97-08
12. Tagging	DRP	NOTE[9]	**Closed** IR 97-07
13. Adequacy of Emergency Preparedness	DRS	NOTE[9]	**Closed** IR 96-18 Exec Summ
14. Resolution of licensing commitments	NRR	NOTE[9] & 1/3 1/19/96 State Mtgs	**Closed** IR 97-03 IR 97-12

RESTART ISSUE CHECKLIST

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RESTART ISSUE (Licensee)	Resp. Org.	Reference	Status
15. Adequacy of Emergency Operating Procedures.	DRS	NOTE[9]	**Closed** IR 96-08
16. Adequacy of training.	DRS	NOTE[9]	**Closed** IR 96-08
17. Adequacy of work control and planning program.	DRS	NOTE[9]	**Closed** IR 97-03
18. Parts availability & accuracy of bill of materials	DRS	NOTE[9] & IR 95-02	**Closed** IR 96-20 IR 97-02
19. Adequacy of licensing Basis Conformance FSAR Discrepancies specifically including Service Water System design and reliability	DRP	NOTE[9]	**Closed** IR 96-06 IR 97-08
20. Adequacy of QA program (Receptiveness do documented deficiencies)	DRP	12/18/95 Public Meeting	**Closed** IR 96-06 IR 96-07 IR 96-18
21. Licensee self assessment capability (Performance monitoring & trending)	DRP	NOTE[9] & 1/3 & 1/19/96 State Mtgs	**Closed** IR 96-06 IR 97-07
22. Integrated Test Program	DRS	96-06 SAP Mtg	**Closed** IR 96-21 IR 97-04 IR 97-06 IR 97-10
23. Adequacy of Motor Operated Valve Program	DRS	IR 96-11 & 96-01 SAP Mtg	**Closed** IR 97-03
24. Adequacy of Security Program	DRS	IR 96-14 & 96-08 SAP Mtg	**Closed** IR 97-07

III.b. LICENSEE RESTART PLANS

RESTART PLANS (Licensee)	Resp. Org.	Reference	Status
1. Conduct of Operations	DRP	96-05 SAP Mtg	Closed R 96-18 IR 97-03
2. Reliable Maintenance	DRP	96-05 SAP Mtg	Closed IR 97-03
3. Work Control Process Improvement	DRP	96-05 SAP Mtg	Closed IR 97-03
4. System Engineering and Equipment Reliability	DRS	96-05 SAP Mtg	Closed IR 97-08
5. Engineering Performance	DRS	96-05 SAP Mtg	Closed IR 97-05
6. Organizational Self Assessment	NRR	96-05 SAP Mtg	Closed IR 97-07
7. Corrective Action	DRP	96-05 SAP Mtg	Closed IR 96-18
8. Human Performance Management	NRR	96-05 SAP Mtg	Closed IR 97-07
9. Accredited Training	DRS	96-05 SAP Mtg	Closed IR 96-08

IV. RESTART READINESS ASSESSMENT CHECKLIST

IV.1. ASSESSMENT OF ROOT CAUSE IDENTIFICATION AND CORRECTION

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ROOT CAUSE ASSESSMENT	SAP	Closed
Applicable Items - Conditions requiring the shutdown are clearly understood - Root causes of the conditions requiring the shutdown are clearly understood - Root causes of other significant problems are clearly understood - Evaluate adequacy of the root cause analysis program		
2. CORRECTIVE ACTIONS	SAP	Closed
Applicable Items - Evaluate adequacy of the comprehensive corrective action plan - Evaluate adequacy of the corrective action programs for specific root causes - Assess control of corrective action item tracking - Effective corrective actions for the conditions requiring the shutdown have been implemented - Effective corrective actions for other significant problems have been implemented - Adequacy of the corrective action verification process		
3. SELF-ASSESSMENT CAPABILITY	SAP	Closed
Applicable Items - Adequacy of licensee's startup self-assessment - Effectiveness of Quality Assurance Program - Adequacy of Industry Experience Review Program - Adequacy of licensee's Independent Review Groups - Adequacy of deficiency reporting system - Staff willingness to raise concerns - Effectiveness of PRA usage - Adequacy of Commitment Tracking Program - Utilization of external audits (i.e. INPO) - Quality and timeliness of 10 CFR 50.72 and 50.73 Reports - Effectiveness of Line Organization Self-Assessments		

IV.2. ASSESSMENT OF LICENSEE MANAGEMENT

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. MANAGEMENT OVERSIGHT AND EFFECTIVENESS	SAP	Closed

Applicable Items

- Management commitment to achieving improved performance
- Performance goals/expectations developed for the staff
- Goals/expectations communicated to the staff
- Resources available to management to achieve goals
- Qualification and training of management
- Management's commitment to procedure adherence
- Management involvement in self-assessment and independent self-assessment capability
- Effectiveness of management review committees
- Effectiveness of internal management meetings
- Management in-plant time
- Management's awareness of day-to-day operational concerns
- Ability to identify and prioritize significant issues
- Ability to coordinate resolution of operability and other significant issues
- Ability to implement effective corrective actions

2. MANAGEMENT ORGANIZATION AND SUPPORT	SAP	Closed

Applicable Items

- Structure of the organization
- Ability to adequately staff the organization
- Effect of any management reorganization
- Establishment of proper work environment
- Ability to foster teamwork among the staff
- Ability to resolve employee concerns
- Ability to provide engineering support
- Adequacy of plant administrative procedures
- Amount of contractor usage
- Adequacy of contractor oversight
- Information exchange with other utilities
- Participation in industry groups
- Ability to function in the Emergency Response Organization
- Coordination with offsite emergency planning officials

IV.3. ASSESSMENT OF PLANT AND CORPORATE STAFF

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ASSESSMENT OF STAFF	SAP	Closed
Applicable Items - Staff commitment to achieving improved performance - Staff's safety consciousness - Understanding of management's expectations/goals - Understanding of plant issues and corrective actions - Morale - Structure of the organization - Effect on the staff of any reorganization - Qualifications and training of the staff - Staff's work environment - Level of attention to detail - Adequacy of staffing - Off-hour plant staffing - Staff overtime usage - Amount of contractor usage - Staff/contractor relationship - Procedure usage/adherence		
2. ASSESSMENT OF CORPORATE SUPPORT	SAP	Closed
Applicable Items - Relationship between corporate and the plant staff - Adequacy of the request for corporate services process - Corporate understanding of plant issues - Corporate staff in plant time - Effectiveness of the corporate/plant interface meetings - Adequacy of corporate representation at plant activities - Adequacy of corporate engineering support - Adequacy of corporate design changes - Adequacy of licensing support		

IV.3. ASSESSMENT OF PLANT AND CORPORATE STAFF

- continued -

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
3. OPERATOR ISSUES	SAP	Closed

Applicable Items

- Licensed operator staffing meets requirements and licensee goals
- Level of formality in the control room
- Adequacy of requalification training
- Adequacy of equipment operability determination training
- Adequacy of SRO command and control
- Control room/plant operator awareness of equipment status
- Adequacy of plant operating procedures
- Procedure usage/adherence
- Log keeping practices

IV.4. ASSESSMENT OF PHYSICAL READINESS OF THE PLANT

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ASSESSMENT OF PHYSICAL READINESS OF THE PLANT	SAP	U1-Open U2-Closed

Applicable Items

- Operability of technical specifications systems
- Operability of required secondary and support systems
- Results of pre-startup testing
- Adequacy of system lineups
- Adequacy of surveillance tests/test program
- Significant hardware issues resolved
- Adequacy of the power ascension testing program
- Adequacy of plant maintenance program effectiveness
- Maintenance backlog managed and impact on operation assessed
- Adequacy of plant housekeeping and equipment storage
- Adequacy of onsite and offsite emergency preparedness

IV.5. ASSESSMENT OF COMPLIANCE WITH REGULATORY REQUIREMENTS

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ASSESSMENT OF COMPLIANCE WITH REGULATORY REQUIREMENTS	SAP	U1-Open U2-Closed

Applicable Items

- Applicable license amendments have been issued
- Applicable exemptions have been granted
- Applicable reliefs have been granted
- Confirmatory Action Letter conditions have been satisfied
- Significant enforcement issues have been resolved
- Allegations have been appropriately addressed

IV.6. COORDINATION WITH INTERESTED AGENCIES/PARTIES

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. COORDINATION WITH INTERESTED AGENCIES/PARTIES	SAP	**Closed**
Applicable Items - Federal Emergency Management Agency - Appropriate State and Local Officials - Appropriate Public Interest Groups - Local News Media		

ATTACHMENT 2

SALEM UNITS 1 & 2 RESTART ACTIVITIES

Major Milestones

The activities listed below comprise the major activities that must be completed prior to the restart of the Salem units.

- NRC approve Salem restart plan. (Accepted by NRC in a February 13, 1996 letter)

- NRC perform inspections to evaluate the adequacy of Salem restart activities. (Salem Unit 1 - began in June 1995 and ongoing; Salem Unit 2 -began in June 1995 through August 1997)

- NRC conduct a meeting with the public to solicit their input. (Two meetings - March 4 and May 28, 1997)

- PSE&G conduct an operational readiness review for each Salem unit. (May 28, 1997 letter)

- PSE&G present the results of their readiness review in a management meeting with NRC open to public observation. (June 9, 1997 after RATI entrance meeting)

- NRC conduct a Restart Assessment Team Inspection (RATI). (June 9 - 24, 1997)

  NRC internally reviews results of RATI and makes appropriate recommendations regarding Salem unit restarts to NRC Regional Administrator. (June 27 and July 22, 1997 SAP meetings)

- On August 6, 1997, NRC approved modification of the Confirmatory Action Letter (CAL) to permit Unit 2 restart.

Public Service
Electric and Gas
Company

Leon R. Eliason
Chief Nuclear Officer & President
Nuclear Business Unit

Public Service Electric and Gas Company P.O. Box 236, Hancocks Bridge, NJ 08038 609-339-1100

MAY 05 1997

LR-N970299

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

**REVISED REQUEST FOR RESTART ASSESSMENT TEAM INSPECTION
FOR SALEM GENERATING STATION UNIT NO. 2
DOCKET NO. 50-311**

Ladies/Gentlemen:

On May 2, 1997 we spoke with the Regional Administrator and informed him that the schedule of Salem Unit 2 mode ascension had slipped beyond the May 8, 1997 noted in our April 11, 1997 letter (N970250). Based on emergent work, we have re-evaluated the activities to be performed and we believe we will be prepared to commence mode ascension on or about June 8, 1997. Therefore, we request that the Restart Assessment Team Inspection commence during the preceding week.

Should you have any questions concerning this matter, please contact me at (609) 339-1100.

Sincerely,

9705150010 2PP

A119

C Mr. H. J. Miller, Administrator - Region I
USNRC Region I
475 Allendale Road
King of Prussia, PA 19406

Larry Nicholson, Deputy Director - Division of Reactor Safety
U. S. Nuclear Regulatory Commission - Region I
475 Allendale Road
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Mr. L. Olshan, Licensing Project Manager - Salem
U. S. Nuclear Regulatory Commission
One White Flint North
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Mail Stop 14E21
Rockville, MD 20852

Mr. C. Marschall (X24)
USNRC Senior Resident Inspector

Mr. K. Tosch, Manager, IV
Bureau of Nuclear Engineering
33 Arctic Parkway
CN 415
Trenton, NJ 08625

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

August 3, 1996

Mr. Leon R. Eliason
Chief Nuclear Officer & President
Nuclear Business Unit
Public Service Electric and Gas Company
P. O. Box 236
Hancocks Bridge, New Jersey 08038

SUBJECT: **NRC RESTART ACTION PLAN - REVISION 1**

Dear Mr. Eliason:

Enclosed is the Revision 1 to NRC's Restart Action Plan (RAP) for Salem Units 1 and 2. The RAP was originally published on February 23, 1996 to describe NRC's planned activities for restart of the Salem units. The enclosed revision was approved by the Salem Assessment Panel (SAP) in SAP meetings 96-05 and 96-06 and includes the following:

- Nine programmatic items were added for each of your functional area restart plans (RAP Section III.b). The addition was necessary to assure a direct, focused review of each of your nine restart plans to verify adequate scope, comprehensiveness, and quality.

- A new programmatic item was added to address your Integrated Test Program (ITP) (RAP Section III.a). This will assure that the NRC is fully engaged and understands your planned test activities for heatup and power escalation.

- An additional programmatic item pertaining to UFSAR updates was modified by adding licensing basis conformance, specifically to include service water design and reliability. This modification was necessary to address ongoing NRC concerns in these areas.

- The entire RAP was reviewed and updated, where appropriate.

If you have any questions or comments on our restart plan, please contact Mr. G. S. Barber (610-337-5232).

Larry E. Nicholson, Chief
Projects Branch 3
Division of Reactor Projects

Enclosure:
NRC Restart Action Plan

Docket Nos. 50-272; 50-311

9608090049 23PP

A/26

cc w/encl:
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E. Simpson, Senior Vice President - Nuclear Engineering
E. Salowitz, Director - Nuclear Business Support
C. Schaefer, External Operations - Nuclear, Delmarva Power & Light Co.
D. Garchow, General Manager - Salem Operations
J. Benjamin, Director - Quality Assurance & Nuclear Safety Review
D. Powell, Manager, Licensing and Regulation
R. Kankus, Joint Owner Affairs
A. Tapert, Program Administrator
R. Fryling, Jr., Esquire
M. Wetterhahn, Esquire
P. MacFarland Goelz, Manager, Joint Generation
Atlantic Electric
Consumer Advocate, Office of Consumer Advocate
William Conklin, Public Safety Consultant, Lower Alloways Creek Township
Public Service Commission of Maryland
State of New Jersey
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Inspection Program Branch, NRR (IPAS)

RESTART PROCESS CHECKLIST

Revision: 1
Date: 7/96

I. INITIAL NRC RESPONSE:

	TASK	STATUS
a.	Initial notification and NRC management discussion of known facts and issues **[Region I]**	SMM 1/95
b.	Identify/implement additional inspections (i.e. AIT, IIT, or Special) **[Region I]**	SIT 95-80
c	Determine need for formal regulatory response (i.e. Order or CAL) **[Region I]**	CAL Issued 6/9/95
d.	Determine need for senior management involvement **[NRR & Region I]**	SMM 3/21/95 met w/PSE&G
e.	Identify other parties involved i.e. NRC Organizations, other Federal agencies, industry organizations **[NRR & Region I]**	NRR/RI FEMA

II. NOTIFICATIONS

	TASK	STATUS
a.	Issue Daily and Directors Highlight **[NRR]**	N/A
b.	Issue Morning Report **[Region I]**	N/A
c.	Conduct Commissioner Assistants' Briefing **[NRR]**	N/A
d.	Issue Commission Paper **[NRR]**	N/A
e.	Cognizant Federal agencies notified (i.e. FEMA, EPA, DOJ, DOL) **[NRR]**	N/A
f.	State and Local Officials notified **[Region I]**	N/A
g.	Congressional notification **[NRR]**	N/A

RESTART PROCESS CHECKLIST

Revision: 1
Date: 7/96

III. ESTABLISH AND ORGANIZE THE NRC REVIEW PROCESS:

TASK	STATUS
a. Establish the Restart Panel (Salem Assessment Panel (SAP)) **[Region I]**	7/6/95
b. Assess available information (i.e. inspection results, licensee self-assessments, industry reviews) **[SAP]**	Complete
c. Conduct Regional Administrator Briefing **[SAP]**	8/7/95
d. Conduct NRR Executive Team Briefing **[NRR]**	10/95
e. Develop the Case Specific Checklist **[SAP]**	2/23/96
f. Develop the Restart Action Plan **[SAP]**	2/23/96
g. Regional Administrator approves Restart Action Plan **[Region I]**	2/23/96
h. NRR Associate Director and/or NRR Director approves Restart Action Plan **[NRR]**	2/23/96
i. Implement Restart Action Plan **[SAP]**	1996
j. Modify CAL/Order as necessary **[Region I]**	N/A
k. Obtain input from involved parties both within NRC and other Federal agencies such as FEMA, EPA, DOJ, DOL	FEMA

IV. REVIEW IMPLEMENTATION:

IV.1 Root Causes and Corrective Actions:

	TASK	STATUS
a.	Evaluate findings of Special Team Inspection [SAP]	IR95-10 IR95-80 Ongoing
b.	Licensee performs root cause analysis and develops corrective action plan for root causes [SAP]	CAL Item #1
c.	NRC evaluates licensee's root cause determination and corrective action plan [SAP]	Ongoing

IV.2 Assessment of Equipment Damage:

	TASK	APPLICABLE
a.	Licensee assesses damage to systems and components	N/A
b.	NRC evaluates licensee damage assessment	N/A
c.	Licensee determines corrective actions	N/A
d.	NRC evaluates corrective actions	N/A

IV.3 Determine Restart Issues and Resolution:

TASK	STATUS
a. Review/evaluate licensee generated restart issues [SAP]	Complete
b. Independent NRC identification of restart issues (consider sources external to NRC and licensee) [SAP]	Complete
c. NRC/licensee agreement on restart issues [SAP]	2/23/96
d. Evaluate licensee's restart issues implementation process [SAP]	Ongoing
e. Evaluate licensee's implementation verification process [SAP]	Ongoing
f. Evaluate NRC open item backlog and Licensee commitments to NRC for potential restart issues [SAP]	Ongoing
g. Evaluate open allegations for potential restart issues [SAP]	Ongoing
h. Evaluate the Restart Readiness Team Inspection findings [SAP]	To Be Determined

IV.4 Obtain Comments:

TASK	STATUS
a. Obtain public comments [SAP]	12/18/95 Meeting with Public
b. Obtain comments from State and Local Officials [SAP]	1/3/96 & 1/19/96 mtgs w/NJ Del. contacted separately
c. Obtain comments from applicable Federal agencies [NRR]	FEMA

IV.5 **Closeout Actions:**

	TASK	STATUS
a.	Evaluate licensee's restart readiness self-assessment **[SAP]**	Open
b.	Restart issues closed **[SAP]**	Open
c.	Conduct NRC Restart Assessment Team Inspection **[Region I]**	Open
d.	Issue Augmented Restart Coverage Inspection Plan **[Region I]**	Open
e.	Comments from other parties considered **[SAP]**	Open
f.	Determine that all conditions of the Order/CAL are satisfied **[SAP]**	Open
g.	Re-review of Generic Restart Checklist complete **[SAP]**	Open

V. RESTART AUTHORIZATION:

	TASK	STATUS
a.	Prepare restart authorization document and basis for restart **[SAP]**	Open
b.	NRC Restart Panel recommends restart **[SAP]**	Open
c.	No restart objections from other applicable HQ offices **[NRR]**	Open
d.	No restart objections from applicable Federal agencies **[NRR]**	Open
e.	Regional Administrator concurs in restart **[Region I]**	Open
f.	NRR Associate Director and/or NRR Director Concurs in restart **[NRR]**	Open
g.	Regional Administrator agrees with restart **[Region I]**	Open

VI. RESTART AUTHORIZATION NOTIFICATION:

TASK	STATUS
a. Commission [NRR]	Open
b. EDO [NRR]	Open
c. Congressional Affairs [NRR]	Open
d. ACRS [NRR]	Open
e. Applicable Federal agencies [NRR]	Open FEMA
f. Public Affairs [Region I]	Open
g. State and Local Officials [Region I]	Open

RESTART ISSUE CHECKLIST

Revision: 1
Date: 7/96

I. CONFIRMATORY ACTION LETTER RESTART ISSUES

RESTART ISSUE (Licensee)	Resp. Org.	Reference	Date Closed
1. PSE&G to perform a Significant Event Response Team (SERT) review of the circumstances leading to, and causing the Salem Unit 2 reactor trip, and communicate the findings to the NRC.[1]	SAP	6/9/95 CAL	Open
2. PSE&G to perform a special review of long-standing equipment reliability and operability issues, including corrective maintenance and operator workarounds; the effectiveness and quality of management oversight and review of these matters; and communicate the findings to the NRC.	SAP	6/9/95 CAL	2/13/96
3. Conduct a meeting with the NRC to describe, discuss and gain NRC agreement on the scope and comprehensiveness of the PSE&G plan for the performance of an operational readiness review of each unit, including the description of issues required to be resolved prior to restart.	SAP	6/9/95 CAL	2/13/96
4. PSE&G to conduct an operational readiness review at each Salem unit.	SAP	6/9/95 CAL	Open
5. Participate in management meetings with the NRC staff, open for public observation, to describe the outcome and conclusions of the operational readiness review for each unit.	SAP	6/9/95 CAL	Open
6. When PSE&G is ready in all respects for restart of the facility, they are to provide a letter to the Regional Administrator certifying that fact.	SAP	6/9/95 CAL	Open
7. Obtain the agreement of the Regional Administrator prior to restart of each Salem unit.	SAP	6/9/95 CAL	Open

[1] Adequacy of corrective actions will be verified consistent with technical restart item 43

RESTART ISSUE CHECKLIST

Revision: 1
Date: 7/96

II. TECHNICAL RESTART ISSUES

TECHNICAL ISSUE	Resp. Org	Reference	Status
1. Cont. Spray Dsch Vlv (CS-2) Operability. Calculations indicate actual d/p may be greater than design d/p.	DRS	URI 92-01-04	Closed IR96-07
2. Reliability of Control Air System. Requires operator action to start backup compressor.	DRP	IR 94-19, 24 & 35	Updated IR96-06 IR96-07
3. CW Screen Motor Reliability. No automatic motor operation, vulnerable to grass intrusion	DRP	IR 95-10	Closed IR96-07
4. Digital feedwater installation to correct feedwater control reliability.	DRS	IR 94-13	Updated IR96-06
5. Moisture in EDG air start system causes reliability problem with check valves.	DRP	IR 94-19	Open
6. EDG output breakers fail to close when switch taken to close.	DRS	IR 95-10	Open
7. EDG has minimal load margin.	DRS	URI 93-82-04	Open
8. EDSFI Followup Issues	DRS	IR 93-082	Open
9. Cracked exhaust steam piping could indicate weak erosion/control program.	DRS	No reference	Open
10. Feedwater nozzle bypass flow introduced error in calorimetric and power level.	DRS	URI 94-024-04	Open
11. EDG 1A load fluctuations.	DRS	URI 94-018-02	Open
12. Review adequacy of fuse control program.	DRS	IR 95-10	Open
13. Review gas turbine batteries degrading with loss of one source of offsite power. Turbine referenced in TS basis to support SW outages.	DRS	IR 95-13	Open
14. Hagan module replacement project.	DRS	IR 94-80, 95-02	Open

RESTART ISSUE CHECKLIST

Revision: 1
Date: 7/96

	TECHNICAL ISSUE	Resp Org	Reference	Status
15.	Procedure contains non-conservative 125V battery acceptance criteria.	DRS	URI 94-18-01	Open
16.	NRC & QA identified numerous IST program deficiencies.	DRS	URI 94-21-01, 02 & 03	Open
17.	Main condenser steam dumps malfunction, requires closing MSIVs on trip and prevents use of main condenser.	DRP	URI 94-08-01	Open
18.	Poor reliability of PDP charging pumps.	DRP	No reference	Open
19.	Poor process for configuration control of pipe supports.	DRP	URI 95-06-01	Open
20.	POPS ability to mitigate overpressure events.	DRS	Vio 94-032-05	Open
21.	Wiring separation & redundancy concerns with RG 1.97 instruments & cable separation	DRS	URI 89-13-07 & 90-81-13	Open
22.	PORV (1PR1) seat leakage, requiring block valve closure.	DRP	IR 94-35	Open
23.	Undersized PORV accumulators.	DRS	IR 95-13	Open
24.	Gate valves identified susceptible to press lock & thermal binding.	DRS	URI 93-026-01	Updated IR96-07
25.	Pressurizer Spray Problems/Use of Aux Spray	DRP	IR 95-13	Open
26.	Radiation monitor problems.	DRS	IR 94-24	Open
27.	Rx coolant pump oil collection system deficiencies.	DRS	IR 94-33 & 94-35	Open
28.	Understand causes and corrective actions for failures of Rx coolant pump seals.	DRP	IR 94-32 & 95-02	Closed IR96-07
29.	Rx Head Vent Valve Stroke Times.	DRP	VIO 95-02	Closed IR96-07
30.	RHR Min-flow Valve (RH29) Failures on unit 2.	DRP	VIO 95-10	Open
31.	RHR Dsch Valve (21RH10) Banging Noise.	DRP	IR 95-10	Open
32.	Review program for control & inspecting resilient fire barrier seals.	DRS	No reference	Open

TECHNICAL ISSUE	Resp. Org	Reference	Status
33. Control rods stepping with no temperature error signal.	DRS	IR 94-19	Open
34. Numerous SI pump deficiencies.	DRP	IR 95-13	Open
35. Verify adequate protection for SI Pump runout.	DRS	IR 95-13.	Open
36. SI relief valves performance history of leaking and lifting.	DRP	IR 94-13, 31 & 95-01	Open
37. Review corrective action for service water pipe erosion.	DRS	IR 95-07	Closed IR96-07
38. Spurious high steam flow signals causing SI.	DRS	EA #94-112-010103	Updated IR96-07
39. Review corrective actions to resolve numerous switchyard failures.	DRS	IR 94-31	Open
40. Verify adequate correction for overhead annunciator failures.	DRS	IR 95-17	Updated IR96-06
41. Verify adequate corrective action to ensure steam generator tube integrity.	DRS	IR 95-17	Open
42. Auxiliary Feedwater System Performance and Reliability.	DRS	No Reference	Updated IR96-06
43. Adequacy of corrective actions from the Salem Unit 2 reactor trip.	DRP	6/9/95 CAL	Open

Revision: 1
Date: 7/96

III.a. PROGRAMMATIC RESTART ISSUES

RESTART ISSUE (Licensee)	Resp. Org.	Reference	Status
1. Resolve Appendix R jumpers and program discrepancies, including fire barrier penetrations.	NRR	NOTE[2]	Open
2. Review efforts to maintain configuration control, given examples from Hagan modules and bolting. Effort to include setpoint control program and drawing control.	DRS	NOTE[1]	Updated IR96-06
3. Adequacy and use of procedures, including procedure revision backlog.	DRP	NOTE[1]	Updated IR96-06 IR96-07
4. Management of engineering and maintenance backlog.	DRP/ RATI	NOTE[1]	Open
5. Program for foreign material exclusion.	DRP	NOTE[1]	Updated IR96-06
6. Operability determinations.	DRP	NOTE[1]	Updated IR96-06 IR96-07
7. Operator performance (Coordination and Communication)	DRS	NOTE[1] & 10/03/95 RA Visit	Updated IR96-07
8. Correction of operator workarounds, including control room deficiencies.	DRP	NOTE[1]	Updated IR96-07
9. Program to utilize operating (industry) experience feedback.	DRP	NOTE[1] & 1/3 & 1/19/96 State Meetings	Updated IR96-07
10. Corrective action program, including adequacy of root cause program.	DRP	NOTE[1]	Open

[2]The Salem Assessment Panel developed these programmatic restart issues by reviewing licensee performance documented in inspection reports, SALPS, enforcement actions and licensee corrective action programs. These items were approved during the October 6, December 6, 1995 and January 3, and 31, 1996 SAP meetings.

III.a. PROGRAMMATIC RESTART ISSUES

- continued -

RESTART ISSUE (Licensee)	Resp. Org.	Reference	Status
11. Engineering contribution to problem resolution, including safety evaluations.	DRP	NOTE[1]	Updated IR96-06 IR96-07
12. Tagging	DRP	NOTE[1]	Open
13. Adequacy of Emergency Preparedness	DRS	NOTE[1]	Updated IR96-06
14. Resolution of licensing commitments.	NRR	NOTE[1] & 1/3 1/19/96 State Mtgs.	Open
15. Adequacy of Emergency Operating Procedures.	DRS	NOTE[1]	Open
16. Adequacy of training.	DRS	NOTE[1]	Open
17. Adequacy of work control and planning program.	DRS	NOTE[1]	Open
18. Parts availability & accuracy of bill of materials	DRS	NOTE [1] & IR 95-02	Open
19. Adequacy of Licensing Basis Conformance FSAR Discrepancies specifically including Service Water System design and reliability	DRP	NOTE[1]	Updated IR96-06
20. Adequacy of QA program (Receptiveness to documented deficiencies)	DRP	12/18/95 Public Meeting	Updated IR96-06 IR96-07
21. Licensee self assessment capability (Performance monitoring & trending)	DRP	NOTE [1] & 1/3 & 1/19/96 State Meetings	Updated IR96-06
22. Integrated Test Program	DRS	96-06 SAP Mtg	Open

III.b. LICENSEE RESTART PLANS

RESTART PLANS (Licensee)	Resp. Org.	Reference	Status
1. Conduct of Operations	DRP	96-05 SAP Mtg	Open
2. Reliable Maintenance	DRP	96-05 SAP Mtg	Open
3. Work Control Process Improvement	DRP	96-05 SAP Mtg	Open
4. System Engineering and Equipment Reliability	DRS	96-05 SAP Mtg	Open
5. Engineering Performance	DRS	96-05 SAP Mtg	Open
6. Organizational Self Assessment	NRR	96-05 SAP Mtg	Open
7. Corrective Action	DRP	96-05 SAP Mtg	Open
8. Human Performance Management	NRR	96-05 SAP Mtg	Open
9. Accredited Training	DRS	96-05 SAP Mtg	Open

IV. RESTART READINESS ASSESSMENT CHECKLIST

IV.1. ASSESSMENT OF ROOT CAUSE IDENTIFICATION AND CORRECTION

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ROOT CAUSE ASSESSMENT	SAP	Open
Applicable Items - Conditions requiring the shutdown are clearly understood - Root causes of the conditions requiring the shutdown are clearly understood - Root causes of other significant problems are clearly understood - Evaluate adequacy of the root cause analysis program		
2. CORRECTIVE ACTIONS	SAP	Open
Applicable Items - Evaluate adequacy of the comprehensive corrective action plan - Evaluate adequacy of the corrective action programs for specific root causes - Assess control of corrective action item tracking - Effective corrective actions for the conditions requiring the shutdown have been implemented - Effective corrective actions for other significant problems have been implemented - Adequacy of the corrective action verification process		
3. SELF-ASSESSMENT CAPABILITY	SAP	Open
Applicable Items - Adequacy of licensee's startup self-assessment - Effectiveness of Quality Assurance Program - Adequacy of Industry Experience Review Program - Adequacy of licensee's Independent Review Groups - Adequacy of deficiency reporting system - Staff willingness to raise concerns - Effectiveness of PRA usage - Adequacy of Commitment Tracking Program - Utilization of external audits (i.e. INPO) - Quality and timeliness of 10 CFR 50.72 and 50.73 Reports - Effectiveness of Line Organization Self-Assessments		

IV.2. ASSESSMENT OF LICENSEE MANAGEMENT

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. MANAGEMENT OVERSIGHT AND EFFECTIVENESS	SAP	Open

Applicable Items

- Management commitment to achieving improved performance
- Performance goals/expectations developed for the staff
- Goals/expectations communicated to the staff
- Resources available to management to achieve goals
- Qualification and training of management
- Management's commitment to procedure adherence
- Management involvement in self-assessment and independent self-assessment capability
- Effectiveness of management review committees
- Effectiveness of internal management meetings
- Management in-plant time
- Management's awareness of day-to-day operational concerns
- Ability to identify and prioritize significant issues
- Ability to coordinate resolution of operability and other significant issues
- Ability to implement effective corrective actions

2. MANAGEMENT ORGANIZATION AND SUPPORT	SAP	Open

Applicable Items

- Structure of the organization
- Ability to adequately staff the organization
- Effect of any management reorganization
- Establishment of proper work environment
- Ability to foster teamwork among the staff
- Ability to resolve employee concerns
- Ability to provide engineering support
- Adequacy of plant administrative procedures
- Amount of contractor usage
- Adequacy of contractor oversight
- Information exchange with other utilities
- Participation in industry groups
- Ability to function in the Emergency Response Organization
- Coordination with offsite emergency planning officials

IV.3. ASSESSMENT OF PLANT AND CORPORATE STAFF

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ASSESSMENT OF STAFF	SAP	Open
Applicable Items - Staff commitment to achieving improved performance - Staff's safety consciousness - Understanding of management's expectations/goals - Understanding of plant issues and corrective actions - Morale - Structure of the organization - Effect on the staff of any reorganization - Qualifications and training of the staff - Staff's work environment - Level of attention to detail - Adequacy of staffing - Off-hour plant staffing - Staff overtime usage - Amount of contractor usage - Staff/contractor relationship - Procedure usage/adherence		
2. ASSESSMENT OF CORPORATE SUPPORT	SAP	Open
Applicable Items - Relationship between corporate and the plant staff - Adequacy of the request for corporate services process - Corporate understanding of plant issues - Corporate staff in plant time - Effectiveness of the corporate/plant interface meetings - Adequacy of corporate representation at plant activities - Adequacy of corporate engineering support - Adequacy of corporate design changes - Adequacy of licensing support		

IV.3. ASSESSMENT OF PLANT AND CORPORATE STAFF

- continued -

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
3. OPERATOR ISSUES	SAP	Open

Applicable Items

- Licensed operator staffing meets requirements and licensee goals
- Level of formality in the control room
- Adequacy of requalification training
- Adequacy of equipment operability determination training
- Adequacy of SRO command and control
- Control room/plant operator awareness of equipment status
- Adequacy of plant operating procedures
- Procedure usage/adherence
- Log keeping practices

IV.4. ASSESSMENT OF PHYSICAL READINESS OF THE PLANT

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ASSESSMENT OF PHYSICAL READINESS OF THE PLANT	SAP	Open

Applicable Items

- Operability of technical specifications systems
- Operability of required secondary and support systems
- Results of pre-startup testing
- Adequacy of system lineups
- Adequacy of surveillance tests/test program
- Significant hardware issues resolved
- Adequacy of the power ascension testing program
- Adequacy of plant maintenance program effectiveness
- Maintenance backlog managed and impact on operation assessed
- Adequacy of plant housekeeping and equipment storage
- Adequacy of onsite and offsite emergency preparedness

IV.5. ASSESSMENT OF COMPLIANCE WITH REGULATORY REQUIREMENTS

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ASSESSMENT OF COMPLIANCE WITH REGULATORY REQUIREMENTS	SAP	Open

Applicable Items

- Applicable license amendments have been issued
- Applicable exemptions have been granted
- Applicable reliefs have been granted
- Confirmatory Action Letter conditions have been satisfied
- Significant enforcement issues have been resolved
- Allegations have been appropriately addressed

IV.6. COORDINATION WITH INTERESTED AGENCIES/PARTIES

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. COORDINATION WITH INTERESTED AGENCIES/PARTIES	SAP	Open

Applicable Items

- Federal Emergency Management Agency
- Appropriate State and Local Officials
- Appropriate Public Interest Groups
- Local News Media

ATTACHMENT 2

SALEM UNITS 1 & 2 RESTART ACTIVITIES

Major Milestones

The activities listed below comprise the major activities that must be completed prior to the restart of the Salem units.

- NRC approve Salem restart plan.
- NRC perform inspections to evaluate the adequacy of Salem restart activities.
- PSE&G conduct an operational readiness review for each Salem unit.
- PSE&G present the results of their readiness review in a management meeting with NRC open to public observation.
- NRC conduct a meeting with the public to solicit their input.
- NRC conduct a Restart Assessment Team Inspection (RATI).
- NRC internally reviews results of RATI and makes appropriate recommendations regarding Salem unit restarts to NRC Regional Administrator.
- If results are acceptable, NRC will approve PSE&G release from the Confirmatory Action Letter. If further PSE&G action is necessary, communicate it to PSE&G and amend NRC plans, as necessary.

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

December 26, 1996

Mr. Leon R. Eliason
Chief Nuclear Officer & President
Nuclear Business Unit
Public Service Electric and Gas Company
P. O. Box 236
Hancocks Bridge, New Jersey 08038

SUBJECT: **NRC RESTART ACTION PLAN - REVISION 2**

Dear Mr. Eliason:

Enclosed is the Revision 2 to NRC's Restart Action Plan (RAP) for Salem Units 1 and 2. The RAP was originally published on February 2[illegible], 1996 to describe NRC's planned monitoring activities for restart of the Salem units. Revision 1 of NRC's RAP was sent to you on August 3, 1996. The enclosed revision was approved by the Salem Assessment Panel (SAP) in SAP meeting 96-09 and includes the following:

- A recent reactive inspection (50-311/96-14) identified significant concerns with your security program. A programmatic item was added to assure that adequate performance improvement is achieved in this area prior to restart.

- A recent motor operated valve (MOV) inspection was completed to review the program for closure against Generic Letter (GL) 89-10. While your staff indicated that your program was complete, this inspection concluded otherwise. A programmatic item was added to assure that your GL 89-10 program is complete or that satisfactory progress is made prior to restart.

- The entire RAP was reviewed and updated, where appropriate.

The status of the restart items reflects inspections up to and including 50-311/96-14.

If you have any questions or comments on our restart plan, please contact Mr. G. S. Barber (610-337-5232).

Larry E. Nicholson, Chief
Projects Branch 3
Division of Reactor Projects

Enclosure:
NRC Restart Action Plan

Docket Nos. 50-272; 50-311

~~9612310087 25pp~~

A/21

cc w/encl:
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E. Simpson, Senior Vice President - Nuclear Engineering
E. Salowitz, Director - Nuclear Business Support
C. Schaefer, External Operations - Nuclear, Delmarva Power & Light Co.
D. Garchow, General Manager - Salem Operations
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A. Tapert, Program Administrator
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M. Wetterhahn, Esquire
P. MacFarland Goelz, Manager, Joint Generation
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Public Service Commission of Maryland
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Inspection Program Branch, NRR (IPAS)

RESTART PROCESS CHECKLIST

Revision: 2
Date: 12/96

I. INITIAL NRC RESPONSE:

	TASK	STATUS
a.	Initial notification and NRC management discussion of known facts and issues **[Region I]**	SMM 1/95
b.	Identify/implement additional inspections (i.e. AIT, IIT, or Special) **[Region I]**	SIT 95-80
c.	Determine need for formal regulatory response (i.e. Order or CAL) **[Region I]**	CAL Issued 6/9/95
d.	Determine need for senior management involvement **[NRR & Region I]**	SMM 3/21/95 met w/PSE&G
e.	Identify other parties involved i.e. NRC Organizations, other Federal agencies, industry organizations **[NRR & Region I]**	NRR/RI FEMA

II. **NOTIFICATIONS:**

	TASK	STATUS
a.	Issue Daily and Directors Highlight **[NRR]**	N/A
b.	Issue Morning Report **[Region I]**	N/A
c.	Conduct Commissioner Assistants' Briefing **[NRR]**	N/A
d.	Issue Commission Paper **[NRR]**	N/A
e.	Cognizant Federal agencies notified (i.e. FEMA, EPA, DOJ, DOL) **[NRR]**	N/A
f.	State and Local Officials notified **[Region I]**	N/A
g.	Congressional notification **[NRR]**	N/A

RESTART PROCESS CHECKLIST

Revision: 2
Date: 12/96

III. ESTABLISH AND ORGANIZE THE NRC REVIEW PROCESS:

	TASK	STATUS
a.	Establish the Restart Panel (Salem Assessment Panel (SAP)) **[Region I]**	7/6/95
b.	Assess available information (i.e. inspection results, licensee self-assessments, industry reviews) **[SAP]**	Complete
c.	Conduct Regional Administrator Briefing **[SAP]**	8/7/95
d.	Conduct NRR Executive Team Briefing **[NRR]**	10/95
3.	Develop the Case Specific Checklist **[SAP]**	2/23/96
f.	Develop the Restart Action Plan **[SAP]**	2/23/96
g.	Regional Administrator approves Restart Action Plan **[Region I]**	2/23/96
h.	NRR Associate Director and/or NRR Director approves Restart Action Plan **[NRR]**	2/23/96
i.	Implement Restart Action Plan **[SAP]**	1996
j.	Modify CAL/Order as necessary **[Region I]**	Pending [1]
k.	Obtain input from involved parties both within NRC and other Federal agencies such as FEMA, EPA, DOJ, DOL	FEMA

[1] The June 9, 1995 CAL was written in a manner that assumed concurrent restart of both units. After the discovery of Salem Unit 1 steam generator tube integrity concerns in February 1996, the licensee elected to make Salem Unit 2 the lead unit for restart. Once all necessary licensee actions are complete, the NRC will modify the CAL to reflect these circumstances.

IV. REVIEW IMPLEMENTATION:

IV.1 Root Causes and Corrective Actions:

	TASK	STATUS
a.	Evaluate findings of Special Team Inspection [SAP]	IR95-10 IR95-80 Ongoing
b.	Licensee performs root cause analysis and develops corrective action plan for root causes [SAP]	CAL Item #1
c.	NRC evaluates licensee's root cause determination and corrective action plan [SAP]	Ongoing

IV.2 Assessment of Equipment Damage:

	TASK	APPLICABLE
a.	Licensee assesses damage to systems and components	N/A
b.	NRC evaluates licensee damage assessment	N/A
c.	Licensee determines corrective actions	N/A
d.	NRC evaluates corrective actions	N/A

RESTART PROCESS CHECKLIST

Revision: 2
Date: 12/96

IV.3 **Determine Restart Issues and Resolution:**

	TASK	STATUS
a.	Review/evaluate licensee generated restart issues **[SAP]**	Complete
b.	Independent NRC identification of restart issues (consider sources external to NRC and licensee) **[SAP]**	Complete
c.	NRC/licensee agreement on restart issues **[SAP]**	Complete
d.	Evaluate licensee's restart issues implementation process **[SAP]**	Ongoing
e.	Evaluate licensee's implementation verification process **[SAP]**	IR 96-08 IR 96-12
f.	Evaluate NRC open item backlog and Licensee commitments to NRC for potential restart issues **[SAP]**	Ongoing
g.	Evaluate open allegations for potential restart issues **[SAP]**	Ongoing
h.	Evaluate the Restart Readiness Team Inspection findings **[SAP]**	To Be Determined

IV.4 **Obtain Comments and determine Restart Issues and their Resolution:**

	TASK	STATUS
a.	Obtain public comments **[SAP]**	12/18/95 Mee. . d with Public
b.	Obtain comments from State and Local Officials **[SAP]**	1/3/96 & 1/19/96 mtgs w/NJ Del. contacted separately
c.	Obtain comments from applicable Federal agencies **[NRR]**	10/31/96

IV.5 Closeout Actions:

	TASK	STATUS
a.	Evaluate licensee's restart readiness self-assessment [SAP]	Updated SIRA IR 96-08
b.	Restart issues closed [SAP]	Open
c.	Conduct NRC Restart Assessment Team Inspection [Region I]	Open
d.	Issue Augmented Restart Coverage Inspection Plan [Region I]	Open
e.	Comments from other parties considered [SAP]	Open
f.	Determine that all conditions of the Order/CAL are satisfied [SAP]	Open
g.	Re-review of Generic Restart Checklist complete [SAP]	Open

V. RESTART AUTHORIZATION:

	TASK	STATUS
a.	Prepare restart authorization document and basis for restart [SAP]	Open
b.	NRC Restart Panel recommends restart [SAP]	Open
c.	No restart objections from other applicable HQ offices [NRR]	Open
d.	No restart objections from applicable Federal agencies [NRR]	Open
e.	Regional Administrator concurs in restart [Region I]	Open
f.	NRR Associate Director and/or NRR Director Concurs in restart [NRR]	Open
g.	Regional Administrator agrees with restart [Region I]	Open

VI. RESTART AUTHORIZATION NOTIFICATION:

	TASK	STATUS
a.	Commission [NRR]	Open
b.	EDO [NRR]	Open
c.	Congressional Affairs [NRR]	Open
d.	ACRS [NRR]	Open
e.	Applicable Federal agencies [NRR]	Open FEMA
f.	Public Affairs [Region I]	Open
g.	State and Local Officials [Region I]	Open

RESTART ISSUE CHECKLIST

Revision: 2
Date: 12/96

I. CONFIRMATORY ACTION LETTER RESTART ISSUES

RESTART ISSUE (Licensee)	Resp. Org.	Reference	Date Closed
1. PSE&G to perform a Significant Event Response Team (SERT) review of the circumstances leading to, and causing the Salem Unit 2 reactor trip, and communicate the findings to the NRC.[1]	SAP	6/9/95 CAL	Open
2. PSE&G to perform a special review of long-standing equipment reliability and operability issues, including corrective maintenance and operator workarounds; the effectiveness and quality of management oversight and review of these matters; and communicate the findings to the NRC.	SAP	6/9/95 CAL	2/13/96
3. Conduct a meeting with the NRC to describe, discuss and gain NRC agreement on the scope and comprehensiveness of the PSE&G plan for the performance of an operational readiness review of each unit, including the description of issues required to be resolved prior to restart.	SAP	6/9/95 CAL	2/13/96
4. PSE&G to conduct an operational readiness review at each Salem unit.	SAP	6/9/ , CAL	Updated SIRA IR 96-08
5. Participate in management meetings with the NRC staff, open for public observation, to describe the outcome and conclusions of the operational readiness review for each unit.	SAP	6/9/95 CAL	Open
6. When PSE&G is ready in all respects for restart of the facility, they are to provide a letter to the Regional Administrator certifying that fact.	SAP	6/9/95 CAL	Open
7. Obtain the agreement of the Regional Administrator prior to restart of each Salem unit.	SAP	6/9/95 CAL	Open

[1] Adequacy of corrective actions will be verified consistent with technical restart item 43

RESTART ISSUE CHECKLIST

Revision: 2
Date: 12/96

II. TECHNICAL RESTART ISSUES

	TECHNICAL ISSUE	Resp. Org	Reference	Status
1.	Cont. Spray Dsch Vlv (CS-2) Operability. Calculations indicate actual d/p may be greater than design d/p.	DRS	URI 92-01-04	**Closed** IR96-07
2.	Reliability of Control Air System. Requires operator action to start backup compressor.	DRP	IR 94-19, 24 & 35	Updated IR96-06 IR96-07 IR96-08
3.	CW Screen Motor Reliability. No automatic motor operation, vulnerable to grass intrusion	DRP	IR 95-10	**Closed** IR96-07
4.	Digital feedwater installation to correct feedwater control reliability.	DRS	IR 94-13	Updated IR96-06
5.	Moisture in EDG air start system causes reliability problem with check valves.	DRP	IR 94-19	**Closed** IR 96-15
6.	EDG output breakers fail to close when switch taken to close.	DRS	IR 95-10	Updated IR 96-10
7.	EDG has minimal load margin.	DRS	URI 93-82-04	Updated IR 96-13
8.	EDSFI Followup Issues	DRS	IR 93-082	Updated IR 96-10
9.	Cracked exhaust steam piping could indicate weak erosion/control program.	DRS	No reference	**Closed** IR 96-10
10.	Feedwater nozzle bypass flow introduced error in calorimetric and power level.	DRS	URI 94-024-04	Open
11.	EDG 1A load fluctuations.	DRS	URI 94-018-02	**Closed** IR 96-13
12.	Review adequacy of fuse control program.	DRS	IR 95-10	Open
13.	Review gas turbine batteries degrading with loss of one source of offsite power. Turbine referenced in TS basis to support SW outages.	DRS	IR 95-13	Open
14.	Hagan module replacement project.	DRS	IR 94-80, 95-02	Open

RESTART ISSUE CHECKLIST

Revision: 2
Date: 12/96

TECHNICAL ISSUE	Resp Org	Reference	Status
15. Procedure contains non-conservative 125V battery acceptance criteria.	DRS	URI 94-18-01	Open
16. NRC & QA identified numerous IST program deficiencies.	DRS	URI 94-21-01, 02 & 03	Open
17. Main condenser steam dumps malfunction, requires closing MSIVs on trip and prevents use of main condenser.	DRP	URI 94-08-01	Updated IR 96-08
18. Poor reliability of PDP charging pumps.	DRP	No reference	U1- Updated U2- **Closed** IR 96-12
19. Poor process for configuration control of pipe supports.	DRP	URI 95-06-01	Open
20. POPS ability to mitigate overpressure events.	DRS	Vio 94-032-05	Open
21. Wiring separation & redundancy concerns with RG 1.97 instruments & cable separation	DRS	URI 89-13-07 & 90-81-13	Open
22. PORV (1PR1) seat leakage, requiring block valve closure.	DRP	IR 94-35	**Closed** IR 96-12
23. Undersized PORV accumulators.	DRS	IR 95-13	Open
24. Gate valves identified susceptible to press lock & thermal binding.	DRS	URI 93-026-01	Updated IR96-07
25. Pressurizer Spray Problems/Use of Aux Spray	DRP	IR 95-13	Updated IR 96-13
26. Radiation monitor problems.	DRS	IR 94-24	Open
27. Rx coolant pump oil collection system deficiencies.	DRS	IR 94-33 & 94-35	Open
28. Understand causes and corrective actions for failures of Rx coolant pump seals.	DRP	IR 94-32 & 95-02	**Closed** IR96-07

TECHNICAL ISSUE	Resp. Org	Reference	Status
29. Rx Head Vent Valve Stroke Times.	DRP	VIO 95-02	**Closed** IR96-07
30. RHR Min-flow Valve (RH29) Failures on unit 2.	DRP	VIO 95-10	Updated IR 96-12
31. RHR Dsch Valve (21RH10) Banging Noise.	DRP	IR 95-10	**Closed** IR 96-08
32. Review program for control & inspecting resilient fire barrier seals.	DRS	No reference	**Closed** IR 96-10
33. Control rods stepping with no temperature error signal.	DRS	IR 94-19	Updated IR 96-10
34. Numerous SI pump deficiencies. ECCS Pump Rebuilds.	DRP	IR 95-13	Updated IR 96-08
35. Verify adequate protection for SI Pump runout.	DRS	IR 95-13.	Updated IR 96-10
36. SI relief valves performance history of leaking and lifting.	DRP	IR 94-13, 31 & 95-01	Open
37. Review corrective action for service water pipe erosion.	DRS	IR 95-07	**Closed** IR96-07
38. Spurious high steam flow signals causing SI.	DRS	EA #94-112-010103	Updated IR96-07
39. Review corrective actions to resolve numerous switchyard failures.	DRS	IR 94-31	Open
40. Verify adequate correction for overhead annunciator failures.	DRS	IR 95-17	**Closed** IR96-06 IR96-13
41. Verify adequate corrective action to ensure steam generator tube integrity.	DRS	IR 95-17	Open
42. Auxiliary Feedwater System Performance and Reliability.	DRS	No Reference	Updated IR96-06
43. Adequacy of corrective actions from the Salem Unit 2 reactor trip.	DRP	6/9/95 CAL	Updated IR 96-08

III.a. PROGRAMMATIC RESTART ISSUES

RESTART ISSUE (Licensee)	Resp. Org.	Reference	Status
1. Resolve Appendix R jumpers and program discrepancies, including fire barrier penetrations.	NRR	NOTE[2]	Open
2. Review efforts to maintain configuration control, given examples from Hagan modules and bolting. Effort to include setpoint control program and drawing control.	DRS	NOTE[1]	Updated IR96-06
3. Adequacy and use of procedures, including procedure revision backlog.	DRP	NOTE[1]	Updated IR96-06 IR96-07 IR 96-08
4. Management of engineering and maintenance backlog.	DRP/ RATI	NOTE[1]	Open
5. Program for foreign material exclusion.	DRP	NOTE[1]	Updated IR96-06 IR96-08
6. Operability determinations.	DRP	NOTE[1]	Updated IR96-06 IR96-07 IR96-08
7. Operator performance (Coordination and Communication)	DRS	NOTE[1] & 10/03/95 RA Visit	Updated IR96-07 IR96-08 IR96-13
8. Correction of operator workarounds, including control room deficiencies.	DRP	NOTE[1]	Updated IR96-07
9. Program to utilize operating (industry) experience feedback.	DRP	NOTE[1] & 1/3 & 1/19/96 State Meetings	Closed IR96-07 IR 96-15

[2]The Salem Assessment Panel developed these programmatic restart issues by reviewing licensee performance documented in inspection reports, SALPS, enforcement actions and licensee corrective action programs. These items were approved during the October 6, December 6, 1995 and January 3, and 31, 1996 SAP meetings.

III.a. PROGRAMMATIC RESTART ISSUES

- continued -

RESTART ISSUE (Licensee)	Resp. Org.	Reference	Status
10. Corrective action program, including adequacy of root cause program.	DRP	NOTE[1]	Updated IR 96-08 IR 96-15
11. Engineering contribution to problem resolution, including safety evaluations.	DRP	NOTE[1]	Updated IR96-06 IR96-07 IR 96-13
12. Tagging	DRP	NOTE[1]	Open
13. Adequacy of Emergency Preparedness	DRS	NOTE[1]	Updated IR96-06
14. Resolution of licensing commitments.	NRR	NOTE[1] & 1/3 1/19/96 State Mtgs.	Open
15. Adequacy of Emergency Operating Procedures.	DRS	NOTE[1]	**Closed** IR 96-08
16. Adequacy of training.	DRS	NOTE[1]	**Closed** IR 96-08
17. Adequacy of work control and planning program.	DRS	NOTE[1]	Open
18. Parts availability & accuracy of bill of materials	DRS	NOTE[1] & IR 95-02	Open
19. Adequacy of Licensing Basis Conformance FSAR Discrepancies specifically including Service Water System design and reliability	DRP	NOTE[1]	Updated IR96-06
20. Adequacy of QA program (Receptiveness to documented deficiencies)	DRP	12/18/95 Public Meeting	Updated IR96-06 IR96-07

RESTART ISSUE CHECKLIST

Revision: 2
Date: 12/96

RESTART ISSUE (Licensee)	Resp. Org.	Reference	Status
21. Licensee self assessment capability (Performance monitoring & trending)	DRP	NOTE [1] & 1/3 & 1/19/96 State Meetings	Updated IR96-06
22. Integrated Test Program	DRS	96-06 SAP Mtg	Open
23. Adequacy of Motor Operated Valve Program	DRS	IR 96-11 & 96-01 SAP Mtg	Open
24. Adequacy of Security Program	DRS	IR 96-14 & 96-08 SAP Mtg	Open

III.b. LICENSEE RESTART PLANS

RESTART PLANS (Licensee)	Resp. Org.	Reference	Status
1. Conduct of Operations	DRP	96-05 SAP Mtg	Open
2. Reliable Maintenance	DRP	96-05 SAP Mtg	Open
3. Work Control Process Improvement	DRP	96-05 SAP Mtg	Open
4. System Engineering and Equipment Reliability	DRS	96-05 SAP Mtg	Open
5. Engineering Performance	DRS	96-05 SAP Mtg	Open
6. Organizational Self Assessment	NRR	96-05 SAP Mtg	Open
7. Corrective Action	DRP	96-05 SAP Mtg	Open
8. Human Performance Management	NRR	96-05 SAP Mtg	Open
9. Accredited Training	DRS	96-05 SAP Mtg	**Closed** IR 96-08

IV. RESTART READINESS ASSESSMENT CHECKLIST

IV.1. ASSESSMENT OF ROOT CAUSE IDENTIFICATION AND CORRECTION

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ROOT CAUSE ASSESSMENT	SAP	Open
Applicable Items - Conditions requiring the shutdown are clearly understood - Root causes of the conditions requiring the shutdown are clearly understood - Root causes of other significant problems are clearly understood - Evaluate adequacy of the root cause analysis program		
2. CORRECTIVE ACTIONS	SAP	Open
Applicable Items - Evaluate adequacy of the comprehensive corrective action plan - Evaluate adequacy of the corrective action programs for specific root causes - Assess control of corrective action item tracking - Effective corrective actions for the conditions requiring the shutdown have been implemented - Effective corrective actions for other significant problems have been implemented - Adequacy of the corrective action verification process		
3. SELF-ASSESSMENT CAPABILITY	SAP	Open
Applicable Items - Adequacy of licensee's startup self-assessment - Effectiveness of Quality Assurance Program - Adequacy of Industry Experience Review Program - Adequacy of licensee's Independent Review Groups - Adequacy of deficiency reporting system - Staff willingness to raise concerns - Effectiveness of PRA usage - Adequacy of Commitment Tracking Program - Utilization of external audits (i.e. INPO) - Quality and timeliness of 10 CFR 50.72 and 50.73 Reports - Effectiveness of Line Organization Self-Assessments		

IV.2. ASSESSMENT OF LICENSEE MANAGEMENT

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. MANAGEMENT OVERSIGHT AND EFFECTIVENESS	SAP	Open

Applicable Items

- Management commitment to achieving improved performance
- Performance goals/expectations developed for the staff
- Goals/expectations communicated to the staff
- Resources available to management to achieve goals
- Qualification and training of management
- Management's commitment to procedure adherence
- Management involvement in self-assessment and independent self-assessment capability
- Effectiveness of management review committees
- Effectiveness of internal management meetings
- Management in-plant time
- Management's awareness of day-to-day operational concerns
- Ability to identify and prioritize significant issues
- Ability to coordinate resolution of operability and other significant issues
- Ability to implement effective corrective actions

2. MANAGEMENT ORGANIZATION AND SUPPORT	SAP	Open

Applicable Items

- Structure of the organization
- Ability to adequately staff the organization
- Effect of any management reorganization
- Establishment of proper work environment
- Ability to foster teamwork among the staff
- Ability to resolve employee concerns
- Ability to provide engineering support
- Adequacy of plant administrative procedures
- Amount of contractor usage
- Adequacy of contractor oversight
- Information exchange with other utilities
- Participation in industry groups
- Ability to function in the Emergency Response Organization
- Coordination with offsite emergency planning officials

IV.3. ASSESSMENT OF PLANT AND CORPORATE STAFF

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ASSESSMENT OF STAFF	SAP	Open
Applicable Items - Staff commitment to achieving improved performance - Staff's safety consciousness - Understanding of management's expectations/goals - Understanding of plant issues and corrective actions - Morale - Structure of the organization - Effect on the staff of any reorganization - Qualifications and training of the staff - Staff's work environment - Level of attention to detail - Adequacy of staffing - Off-hour plant staffing - Staff overtime usage - Amount of contractor usage - Staff/contractor relationship - Procedure usage/adherence		
2. ASSESSMENT OF CORPORATE SUPPORT	SAP	Open
Applicable Items - Relationship between corporate and the plant staff - Adequacy of the request for corporate services process - Corporate understanding of plant issues - Corporate staff in plant time - Effectiveness of the corporate/plant interface meetings - Adequacy of corporate representation at plant activities - Adequacy of corporate engineering support - Adequacy of corporate design changes - Adequacy of licensing support		

IV.3. ASSESSMENT OF PLANT AND CORPORATE STAFF

- continued -

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
3. OPERATOR ISSUES	SAP	Open

Applicable Items

- Licensed operator staffing meets requirements and licensee goals
- Level of formality in the control room
- Adequacy of requalification training
- Adequacy of equipment operability determination training
- Adequacy of SRO command and control
- Control room/plant operator awareness of equipment status
- Adequacy of plant operating procedures
- Procedure usage/adherence
- Log keeping practices

IV.4. ASSESSMENT OF PHYSICAL READINESS OF THE PLANT

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ASSESSMENT OF PHYSICAL READINESS OF THE PLANT	SAP	Open

Applicable Items

- Operability of technical specifications systems
- Operability of required secondary and support systems
- Results of pre-startup testing
- Adequacy of system lineups
- Adequacy of surveillance tests/test program
- Significant hardware issues resolved
- Adequacy of the power ascension testing program
- Adequacy of plant maintenance program effectiveness
- Maintenance backlog managed and impact on operation assessed
- Adequacy of plant housekeeping and equipment storage
- Adequacy of onsite and offsite emergency preparedness

IV.5. ASSESSMENT OF COMPLIANCE WITH REGULATORY REQUIREMENTS

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ASSESSMENT OF COMPLIANCE WITH REGULATORY REQUIREMENTS	SAP	Open

Applicable Items

- Applicable license amendments have been issued
- Applicable exemptions have been granted
- Applicable reliefs have been granted
- Confirmatory Action Letter conditions have been satisfied
- Significant enforcement issues have been resolved
- Allegations have been appropriately addressed

IV.6. COORDINATION WITH INTERESTED AGENCIES/PARTIES

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. COORDINATION WITH INTERESTED AGENCIES/PARTIES	SAP	Open
Applicable Items - Federal Emergency Management Agency - Appropriate State and Local Officials - Appropriate Public Interest Groups - Local News Media		

ATTACHMENT 2

SALEM UNITS 1 & 2 RESTART ACTIVITIES

Major Milestones

The activities listed below comprise the major activities that must be completed prior to the restart of the Salem units.

- NRC approve Salem restart plan.
- NRC perform inspections to evaluate the adequacy of Salem restart activities.
- PSE&G conduct an operational readiness review for each Salem unit.
- PSE&G present the results of their readiness review in a management meeting with NRC open to public observation.
- NRC conduct a meeting with the public to solicit their input.
- NRC conduct a Restart Assessment Team Inspection (RATI).
- NRC internally reviews results of RATI and makes appropriate recommendations regarding Salem unit restarts to NRC Regional Administrator.
- If results are acceptable, NRC will approve PSE&G release from the Confirmatory Action Letter. If further PSE&C action is necessary, communicate it to PSE&G and amend NRC plans, as necessary.

February 23, 1996

Mr. Leon R. Eliason
Chief Nuclear Officer & President
Nuclear Business Unit
Public Service Electric and Gas Company
P. O. Box 236
Hancocks Bridge, New Jersey 08038

SUBJECT: NRC RESTART ACTION PLAN FOR SALEM UNITS 1 & 2

Dear Mr. Eliason:

Enclosed is the NRC's Restart Action Plan (RAP) for Salem Units 1 and 2. We ask that you pay particular attention to Sections II and III of the Restart Issue Checklist. These two sections pertaining to Technical and Programmatic Issues were derived from a comprehensive review of your activities and will be independently reviewed and inspected. The NRC also solicited and used information provided by the public and the states of New Jersey and Delaware in developing our plan. We consider our RAP to be a subset of the activity needed to effect long term performance improvement of the Salem units. Thus, we encourage you to proceed with the preplanned activities articulated in your restart plan.

If you have any questions or comments on our restart plan, please contact Mr. G. S. Barber (610-337-5232).

ORIGINAL SIGNED BY
G. SCOTT BARBER FOR:

Larry E. Nicholson, Chief
Projects Branch 3
Division of Reactor Projects

Enclosure:
NRC Restart Action Plan

Docket Nos. 50-272; 50-311

9602040245 3PP

A/22

cc w/encl:
L. Storz, Senior Vice President - Nuclear Operations
E. Simpson, Senior Vice President - Nuclear Engineering
E. Salowitz, Director - Nuclear Business Support
C. Schaefer, External Operations - Nuclear, Delmarva Power & Light Co.
C. Warren, General Manager - Salem Operations
J. Benjamin, Director - Quality Assurance & Nuclear Safety Review
D. Powell, Manager, Licensing and Regulation
R. Kankus, Joint Owner Affairs
A. Tapert, Program Administrator
R. Fryling, Jr., Esquire
M. Wetterhahn, Esquire
P. MacFarland Goelz, Manager, Joint Generation
Atlantic Electric
Consumer Advocate, Office of Consumer Advocate
William Conklin, Public Safety Consultant, Lower Alloways Creek Township
Public Service Commission of Maryland
State of New Jersey
State of Delaware

Distribution w/encl:
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Inspection Program Branch, NRR (IPAS)

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OFFICE	RI:DRP	C	RI:DRP	C				
NAME	SBarber		LNicholson					
DATE	2/14/96		2/14/96					

OFFICIAL RECORD COPY

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

February 23, 1996

Mr. Leon R. Eliason
Chief Nuclear Officer & President
Nuclear Business Unit
Public Service Electric and Gas Company
P. O. Box 236
Hancocks Bridge, New Jersey 08038

SUBJECT: NRC RESTART ACTION PLAN FOR SALEM UNITS 1 & 2

Dear Mr. Eliason:

Enclosed is the NRC's Restart Action Plan (RAP) for Salem Units 1 and 2. We ask that you pay particular attention to Sections II and III of the Restart Issue Checklist. These two sections pertaining to Technical and Programmatic Issues were derived from a comprehensive review of your activities and will be independently reviewed and inspected. The NRC also solicited and used information provided by the public and the states of New Jersey and Delaware in developing our plan. We consider our RAP to be a subset of the activity needed to effect long term performance improvement of the Salem Units. Thus, we encourage you to proceed with the preplanned activities articulated in your restart plan.

If you have any questions or comments on our restart plan, please contact Mr. G. S. Barber (610-337-5232).

Larry E. Nicholson, Chief
Projects Branch 3
Division of Reactor Projects

Enclosure:
NRC Restart Action Plan

Docket Nos. 50-272; 50-311

9603040245 - PDR

cc w/encl:
L. Storz, Senior Vice President - Nuclear Operations
E. Simpson, Senior Vice President - Nuclear Engineering
E. Salowitz, Director - Nuclear Business Support
C. Schaefer, External Operations - Nuclear, Delmarva Power & Light Co.
C. Warren, General Manager - Salem Operations
J. Benjamin, Director - Quality Assurance & Nuclear Safety Review
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Consumer Advocate, Office of Consumer Advocate
William Conklin, Public Safety Consultant, Lower Alloways Creek Township
Public Service Commission of Maryland
State of New Jersey
State of Delaware

February 23, 1996

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19464

MEMORANDUM TO: Thomas T. Martin,
Regional Administrator, RI

Roy Zimmerman
Associate Director for Projects
Office of Nuclear Reactor Regulation

FROM: Richard Cooper, Director
Division of Reactor Projects, RI

Steven A. Varga, Director
Office of Nuclear Reactor Regulation

SUBJECT: **SALEM RESTART ACTION PLAN**

Attached is the Salem Restart Action Plan for your review and approval in accordance with NRC Inspection Manual Chapter 0350, "Staff Guidelines for Restart Approval." This action plan, once approved, will be maintained and updated by the Salem Assessment Panel (SAP). The SAP intends to make minor revisions without seeking additional approval; however, if a significant revision is made to the plan, you will be notified and requested to approve the revision. Additionally, Attachment 2 provides a listing of Major Milestones.

The Restart Action Plan consists of two parts. The first part, "Restart Process Checklist," contains a checklist of items that constitutes the overall review process for the NRC to conclude that restart of the facility is appropriate. The second part, "Restart Issues Checklist," contains a list of plant-specific issues that will be considered and/or evaluated by the NRC staff prior to concluding that restart should proceed.

The SAP, in its capacity as the Salem Restart Panel, is responsible for the implementation of the approved Salem Restart Action Plan. You will be updated peripdically on the status of restart readiness.

Steven A. Varga, Director
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

for Richard W. Cooper, II, Director
Division of Reactor Projects
Region I

Approved: Roy P Zimmerman
Roy Zimmerman Date
2/16/96

Thomas T. Martin 2/23/96
Thomas T. Martin Date

9603040249 25PP

Docket No. 50-272 & 50-311

Attachments:

1. Salem Restart Action Plan
2. Major Milestones

cc w/att:
Region I Docket Room (with concurrence)
L. Olshan, NRR
S. Barber, DRP
R. Cooper, DRP
W. Dean, OEDO
L. Nicholson, DRP
J. Stolz, NRR
F. Miraglia, NRR
W. Russell, NRR
C. Marschall, DRP
E. Kelly, DRS
A. Della Greca, DRS
S. Varga, NRR
J. Wiggins, DRS
J. Zwolinski, NRR

SALEM RESTART ACTION PLAN

Salem Units 1 and 2 were first discussed during the January 1990 Senior Management Meeting (SMM). NRC Augmented Inspection Teams (AIT) have been dispatched to Salem every year between 1991 and 1994. An AIT was performed in 1991 to review the Unit 2 turbine-generator catastrophic failure; in 1992 to review loss of overhead annunciators; in 1993 to review repetitive control rod system failures; and in 1994 to review the trip and the subsequent unexpected response of plant systems that complicated plant shutdown. In April 1995, an NRC Special Inspection Team (SIT) was sent to Salem to assess the licensee's safety perspective in the areas of work implementation and scheduling, problem identification, and management oversight.

As a result of continued performance deficiencies, weak management oversight, and ineffective corrective actions coupled with the Technical Specification (TS) required shutdowns of both units, the licensee voluntarily agreed to extend the duration of the outages for Salem Units 1 & 2. In response to this voluntary action, NRC Region 1 issued a Confirmatory Action Letter (CAL) on June 9, 1995. This CAL delineated licensee commitments that must be satisfied prior to the restart of either Salem unit. The Salem Assessment Panel (SAP) was chartered and has been tasked with monitoring the licensee's restart plans in accordance with NRC Manual Chapter 0350.

PSE&G has taken numerous steps during this extended outage to address their performance problems, including an Independent Startup Assessment Team. The purpose of this Restart Action Plan is to coordinate the NRC actions necessary to conclude that adequate performance improvement has resulted from various licensee initiatives to support plant restart. This action plan, once approved, will be maintained and updated by the Salem Assessment Panel (SAP).

The Restart Action Plan consists of two parts. The first part, "Restart Process Checklist," contains a checklist of items that constitutes the overall review process for the NRC to conclude that restart of the facility is appropriate. The brackets beside each item specify the responsible NRC organization for the task. The second part, "Restart Issues Checklist," contains a list of plant-specific issues, including those contained in the CAL, that will be addressed by the NRC staff (i.e. SAP) prior to concluding that restart should proceed. The second part also contains the "Restart Readiness Assessment Checklist," which lists the items to be addressed as an integral part of the entire process, including consideration during the Restart Assessment Team inspection (RATI).

The "status" column indicates whether actions associated with each individual item are complete, ongoing, or are open (no status yet). For the Restart Issues Checklist, a "yes" indicates that, as a minimum, the SAP will address this specific item during the assembly and assessment of available performance indicators.

The listed restart issues met at least one of the following criteria:

(1) Resolution of the issue is required to ensure safe operation of the facility.
(2) Resolution of the issue is required to comply with technical specifications.

(4) Resolution of the issue is required to meet the design/licensing basis.
(5) Resolution of the issue is required to ensure effective management oversight.
(6) Resolution of the issue is required to ensure an effective corrective action process.

The restart issues checklist is divided into four sections: (1) Confirmatory Action Letter Issues; (2) Technical Issues; (3) Programmatic Issues; and (4) Restart Readiness Assessment Checklist . Each of the first three sections has four columns. The first column lists the specific restart issue. The column entitled "Resp. Org." indicates the NRC organization responsible to close the issue. The "Reference" column indicates the inspection report, SAP meeting minutes, or other docketed reference that will document NRC review and inspection of the issue. The "Date Closed" column lists the date on which the SAP considered the issue closed and will reference the SAP meeting minutes in which the basis for closure was documented. There is no significance in the order of items listed.

All of the restart issues other than the Confirmatory Action Letter issues involve correcting, at a minimum, the presently known deficiencies associated with that system or program. Prior to restart, PSE&G will resolve or effect sufficient performance improvement for each restart issue. In order to fully resolve each restart issue, PSE&G must address the deficiencies in that system or program and present the basis for concluding that sufficient improvements have been made to justify safe operation of the facility.

A Readiness Assessment Team Inspection (RATI) will be conducted following closure of the restart items and an operational readiness verification by PSE&G that they have corrected the necessary equipment and performance issues to support safe operation. The RATI will conduct an integrated assessment of plant performance to independently confirm the adequacy of the corrective actions. Public comments were solicited prior to the initial formulation of the NRC restart plan. Further public comments will be solicited just prior to restart.

RESTART PROCESS CHECKLIST

Revision: 0
Date: 2/96

I. INITIAL NRC RESPONSE:

	TASK	STATUS
a.	Initial notification and NRC management discussion of known facts and issues [Region I]	SMM 1/95
b.	Identify/implement additional inspections (i.e. AIT, IIT, or Special) [Region I]	SIT 95-80
c.	Determine need for formal regulatory response (i.e. Order or CAL) [Region I]	CAL Issued 6/9/95
d.	Determine need for senior management involvement [NRR & Region I]	SMM 3/21/95 met w/PSE&G
e.	Identify other parties involved i.e. NRC Organizations, other Federal agencies, industry organizations [NRR & Region I]	NRR/RI FEMA

II. NOTIFICATIONS:

	TASK	STATUS
a.	Issue Daily and Directors Highlight [NRR]	N/A
b.	Issue Morning Report [Region I]	N/A
c.	Conduct Commissioner Assistants' Briefing [NRR]	N/A
d.	Issue Commission Paper [NRR]	N/A
e.	Cognizant Federal agencies notified (i.e. FEMA, EPA, DOJ, DOL) [NRR]	N/A
f.	State and Local Officials notified [Region I]	N/A
g.	Congressional notification [NRR]	N/A

III. ESTABLISH AND ORGANIZE THE NRC REVIEW PROCESS:

	TASK	STATUS
a.	Establish the Restart Panel (Salem Assessment Panel (SAP)) [Region I]	7/6/95
b.	Assess available information (i.e. inspection results, licensee self-assessments, industry reviews) [SAP]	Ongoing
c.	Conduct Regional Administrator Briefing [SAP]	8/7/95
d.	Conduct NRR Executive Team Briefing [NRR]	10/95
e.	Develop the Case Specific Checklist [SAP]	Ongoing
f.	Develop the Restart Action Plan [SAP]	10/95
g.	Regional Administrator approves Restart Action Plan [Region I]	2/96
h.	NRR Associate Director and/or NRR Director approves Re-start Action Plan [NRR]	2/96
i.	Implement Restart Action Plan [SAP]	1st & 2nd Quarter 1996
j.	Modify CAL/Order as necessary [Region I]	N/A
k.	Obtain input from involved parties both within NRC and other Federal agencies such as FEMA, EPA, DOJ, DOL	FEMA

IV. REVIEW IMPLEMENTATION:

IV.1 Root Causes and Corrective Actions:

TASK		STATUS
a.	Evaluate findings of Special Team Inspection [SAP]	95-10 95-80 Ongoing
b.	Licensee performs root cause analysis and develops corrective action plan for root causes [SAP]	8/10 & 12/11 Management Meetings
c.	NRC evaluates licensee's root cause determination and corrective action plan [SAP]	Ongoing

IV.2 Assessment of Equipment Damage

TASK		APPLICABLE
a.	Licensee assesses damage to systems and components	N/A
b.	NRC evaluates licensee damage assessment	N/A
c.	Licensee determines corrective actions	N/A
d.	NRC evaluates corrective actions	N/A

IV.3 Determine Restart Issues and Resolution:

TASK	STATUS
a. Review/evaluate licensee generated restart issues [SAP]	Ongoing
b. Independent NRC identification of restart issues (consider sources external to NRC and licensee) [SAP]	Ongoing
c. NRC/licensee agreement on restart issues [SAP]	2/96
d. Evaluate licensee's restart issues implementation process [SAP]	Ongoing
e. Evaluate licensee's implementation verification process [SAP]	Pending Approval of the Plan
f. Evaluate NRC open item backlog and Licensee commitments to NRC for potential restart issues [SAP]	Ongoing
g. Evaluate open allegations for potential restart issues [SAP]	Ongoing
h. Evaluate the Restart Readiness Team Inspection findings [SAP]	To Be Determined

IV.4 Obtain Comments:

TASK	STATUS
a. Obtain public comments [SAP]	12/18/95 Meeting with Public
b. Obtain comments from State and Local Officials [SAP]	1/3/96 & 1/19/96 mtgs w/NJ Del. contacted separately
c. Obtain comments from applicable Federal agencies [NRR]	FEMA

IV.5 Closeout Actions:

	TASK	STATUS
a.	Evaluate licensee's restart readiness self-assessment [SAP]	Open
b.	Restart issues closed [SAP]	Open
c.	Conduct NRC Restart Assessment Team Inspection [Region I]	Open
d.	Issue Augmented Restart Coverage Inspection Plan [Region I]	Open
e.	Comments from other parties considered [SAP]	Open
f.	Determine that all conditions of the Order/CAL are satisfied [SAP]	Open
g.	Re-review of Generic Restart Checklist complete [SAP]	Open

V. RESTART AUTHORIZATION:

	TASK	STATUS
a.	Prepare restart authorization document and basis for restart [SAP]	Open
b.	NRC Restart Panel recommends restart [SAP]	Open
c.	No restart objections from other applicable HQ offices [NRR]	Open
d.	No restart objections from applicable Federal agencies [NRR]	Open
e.	Regional Administrator concurs in restart [Region I]	Open
f.	NRR Associate Director and/or NRR Director Concurs in restart [NRR]	Open
g.	Regional Administrator agrees with restart [Region I]	Open

VI. RESTART AUTHORIZATION NOTIFICATION:

TASK	STATUS
a. Commission [NRR]	Open
b. EDO [NRR]	Open
c. Congressional Affairs [NRR]	Open
d. ACRS [NRR]	Open
e. Applicable Federal agencies [NRR]	Open FEMA
f. Public Affairs [Region I]	Open
g. State and Local Officials [Region I]	Open

RESTART ISSUE CHECKLIST

Revision: 0
Date: 2/96

I. CONFIRMATORY ACTION LETTER RESTART ISSUES

RESTART ISSUE (Licensee)	Resp. Org.	Reference	Date Closed
1. PSE&G to perform a Significant Event Response Team (SERT) review of the circumstances leading to, and causing the Salem Unit 2 reactor trip, and communicate the findings to the NRC.[1]	SAP	6/9/95 CAL	Open
2. PSE&G to perform a special review of long-standing equipment reliability and operability issues, including corrective maintenance and operator workarounds; the effectiveness and quality of management oversight and review of these matters; and communicate the findings to the NRC.	SAP	6/9/95 CAL	2/13/96
3. Conduct a meeting with the NRC to describe, discuss and gain NRC agreement on the scope and comprehensiveness of the PSE&G plan for the performance of an operational readiness review of each unit, including the description of issues required to be resolved prior to restart.	SAP	6/9/95 CAL	2/13/96
4. PSE&G to conduct an operational readiness review at each Salem unit.	SAP	6/9/95 CAL	Open
5. Participate in management meetings with the NRC staff, open for public observation, to describe the outcome and conclusions of the operational readiness review for each unit.	SAP	6/9/95 CAL	Open
6. When PSE&G is ready in all respects for restart of the facility, they are to provide a letter to the Regional Administrator certifying that fact.	SAP	6/9/95 CAL	Open
7. Obtain the agreement of the Regional Administrator prior to restart of each Salem unit.	SAP	6/9/95 CAL	Open

[1] Adequacy of corrective actions will be verified consistent with technical restart item 43

RESTART ISSUE CHECKLIST

Revision: 0
Date: 2/96

II. TECHNICAL RESTART ISSUES

TECHNICAL ISSUE	Resp. Org	Reference	Status
1. Cont. Spray Dsch Vlv (CS-2) Operability. Calculations indicate actual d/p may be greater than design d/p.	DRS	URI 92-01-04	Open
2. Reliability of Control Air System. Requires operator action to start backup compressor.	DRP	IR 94-19, 24 & 35	Open
3. CW Screen Motor Reliability. No automatic motor operation, vulnerable to grass intrusion	DRP	IR 95-10	Open
4. Digital feedwater installation to correct feedwater control reliability.	DRS	IR 94-13	Open
5. Moisture in EDG air start system causes reliability problem with check valves.	DRP	IR 94-19	Open
6. EDG output breakers fail to close when switch taken to close.	DRS	IR 95-10	Open
7. EDG has minimal load margin.	DRS	URI 93-82-04.	Open
8. EDSFI Followup Issues	DRS	IR 93-082.	Open
9. Cracked exhaust steam piping could indicate weak erosion/control program.	DRS	No reference	Open
10. Feedwater nozzle bypass flow introduced error in calorimetric and power level.	DRS	URI 94-024-04	Open
11. EDG 1A load fluctuations.	DRS	URI 94-018-02	Open
12. Review adequacy of fuse control program.	DRS	IR 95-10	Open
13. Review gas turbine batteries degrading with loss of one source of offsite power. Turbine referenced in TS basis to support SW outages.	DRS	IR 95-13	Open
14. Hagan module replacement project.	DRS	IR 94-80, 95-02.	Open

RESTART ISSUE CHECKLIST

Revision: 0
Date: 2/96

TECHNICAL ISSUE	Resp. Org	Reference	Status
15. Procedure contains non-conservative 125V battery acceptance criteria.	DRS	URI 94-18-01	Open
16. NRC & QA identified numerous IST program deficiencies.	DRS	URI 94-21-01, 02 & 03	Open
17. Main condenser steam dumps malfunction, requires closing MSIVs on trip and prevents use of main condenser.	DRP	URI 94-08-01	Open
18. Poor reliability of PDP charging pumps.	DRP	No reference	Open
19. Poor process for configuration control of pipe supports.	DRP	URI 95-06-01	Open
20. POPS ability to mitigate overpressure events.	DRS	Vio 94-032-05	Open
21. Wiring separation & redundancy concerns with RG 1.97 instruments & cable separation	DRS	URI 89-13-07 & 90-81-13	Open
22. PORV (1PR1) seat leakage, requiring block valve closure.	DRP	IR 94-35	Open
23. Undersized PORV accumulators.	DRS	IR 95-13	Open
24. Gate valves identified susceptible to press lock & thermal binding.	DRS	URI 93-026-01	Open
25. Pressurizer Spray Problems/Use of Aux Spray	DRP	IR 95-13	Open
26. Radiation monitor problems.	DRS	IR 94-24	Open
27. Rx coolant pump oil collection system deficiencies.	DRS	IR 94-33 & 94-35	Open
28. Understand causes and corrective actions for failures of Rx coolant pump seals.	DRP	IR 94-32 & 95-02	Open
29. Rx Head Vent Valve Stoke Times.	DRP	VIO 95-02	Open
30. RHR Min-flow Valve (RH29) Failures on unit 2.	DRP	VIO 95-10	Open
31. RHR Dsch Valve (21RH10) Banging Noise.	DRP	IR 95-10	Open
32. Review program for control & inspecting resilient fire barrier seals.	DRS	No reference	Open

TECHNICAL ISSUE	Resp. Org	Reference	Status
33. Control rods stepping with no temperature error signal.	DRS	IR 94-19	Open
34. Numerous SI pump deficiencies.	DRP	IR 95-13	Open
35. Verify adequate protection for SI Pump runout.	DRS	IR 95-13.	Open
36. SI relief valves performance history of leaking and lifting.	DRP	IR 94-13, 31 & 95-01	Open
37. Review corrective action for service water pipe erosion.	DRS	IR 95-07	Open
38. Spurious high steam flow signals causing SI.	DRS	EA #94-112-010103	Open
39. Review corrective actions to resolve numerous switchyard failures.	DRS	IR 94-31	Open
40. Verify adequate correction for overhead annunciator failures.	DRS	IR 95-17	Open
41. Verify adequate corrective action to ensure steam generator tube integrity.	DRS	IR 95-17	Open
42. Auxiliary Feedwater System Performance and Reliability.	DRS	No Reference	Open
43. Adequacy of corrective actions from the Salem Unit 2 reactor trip.	DRP	6/9/95 CAL	Open

RESTART ISSUE CHECKLIST

Revision: 0
Date: 2/96

III. PROGRAMMATIC RESTART ISSUES

RESTART ISSUE (Licensee)	Resp. Org.	Reference	Date Closed
1. Resolve Appendix R jumpers and program discrepancies, including fire barrier penetrations.	NRR	NOTE[1]	
2. Review efforts to maintain configuration control, given examples from Hayan modules and bolting. Effort to include setpoint control program and drawing control.	DRS	NOTE[1]	
3. Adequacy and use of procedures, including procedure revision backlog.	DRP	NOTE[1]	
4. Management of engineering and maintenance backlog.	DRP/ RATI	NOTE[1]	
5. Program for foreign material exclusion.	DRP	NOTE[1]	
6. Operability determinations.	DRP	NOTE[1]	
7. Operator performance (Coordination and Communication)	DRS	NOTE[1] & 10/03/95 RA Visit	
8. Correction of operator workarounds, including control room deficiencies.	DRP	NOTE[1]	
9. Program to utilize operating (industry) experience feedback.	DRP	NOTE[1] & 1/3 & 1/19/96 State Meetings	
10. Corrective action program, including adequacy of root cause program.	DRP	NOTE[1]	

[1]The Salem Assessment Panel developed these programmatic restart issues by reviewing licensee performance documented in inspection reports, SALPS, enforcement actions and licensee corrective action programs. These items were approved during the October 6, December 6, 1995 and January 3, and 31, 1996 SAP meetings.

III. PROGRAMMATIC RESTART ISSUES

- continued -

RESTART ISSUE (Licensee)	Resp. Org.	Reference	Date Closed
11. Engineering contribution to problem resolution, including safety evaluations.	DRP	NOTE[1]	
12. Tagging	DRP	NOTE[1]	
13. Adequacy of Emergency Preparedness	DRS	NOTE[1]	
14. Resolution of licensing commitments.	NRR	NOTE[1] & 1/3 1/19/96 State Mtgs.	
15. Adequacy of Emergency Operating Procedures.	DRS	NOTE[1]	
16. Adequacy of training.	DRS	NOTE[1]	
17. Adequacy of work control and planning program.	DRS	NOTE[1]	
18. Parts availability & accuracy of bill of materials	DRS	NOTE [1] & IR 95-02	
19. Adequacy of UFSAR Update	DRP	NOTE[1]	
20. Adequacy of QA program (Receptiveness to documented deficiencies)	DRP	12/18/95 Public Meeting	
21. Licensee self assessment capability (Performance monitoring & trending)	DRP	NOTE [1] & 1/3 & 1/19/96 State Meetings	

IV. RESTART READINESS ASSESSMENT CHECKLIST

IV.1. ASSESSMENT OF ROOT CAUSE IDENTIFICATION AND CORRECTION

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ROOT CAUSE ASSESSMENT	SAP	Open
Applicable Items - Conditions requiring the shutdown are clearly understood - Root causes of the conditions requiring the shutdown are clearly understood - Root causes of other significant problems are clearly understood - Evaluate adequacy of the root cause analysis program		
2. CORRECTIVE ACTIONS	SAP	Open
Applicable Items - Evaluate adequacy of the comprehensive corrective action plan - Evaluate adequacy of the corrective action programs for specific root causes - Assess control of corrective action item tracking - Effective corrective actions for the conditions requiring the shutdown have been implemented - Effective corrective actions for other significant problems have been implemented - Adequacy of the corrective action verification process		

3. SELF-ASSESSMENT CAPABILITY	SAP	Open
Applicable Items - Adequacy of licensee's startup self-assessment - Effectiveness of Quality Assurance Program - Adequacy of Industry Experience Review Program - Adequacy of licensee's Independent Review Groups - Adequacy of deficiency reporting system - Staff willingness to raise concerns - Effectiveness of PRA usage - Adequacy of Commitment Tracking Program - Utilization of external audits (i.e. INPO) - Quality and timeliness of 10 CFR 50.72 and 50.73 Reports - Effectiveness of Line Organization Self-Assessments		

RESTART READINESS ASSESSMENT CHECKLIST

IV.2. ASSESSMENT OF LICENSEE MANAGEMENT

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. MANAGEMENT OVERSIGHT AND EFFECTIVENESS	SAP	Open
Applicable Items - Management commitment to achieving improved performance - Performance goals/expectations developed for the staff - Goals/expectations communicated to the staff - Resources available to management to achieve goals - Qualification and training of management - Management's commitment to procedure adherence - Management involvement in self-assessment and independent self-assessment capability - Effectiveness of management review committees - Effectiveness of internal management meetings - Management in-plant time - Management's awareness of day-to-day operational concerns - Ability to identify and prioritize significant issues - Ability to coordinate resolution of operability and other significant issues - Ability to implement effective corrective actions		
2. MANAGEMENT ORGANIZATION AND SUPPORT	SAP	Open
Applicable Items - Structure of the organization - Ability to adequately staff the organization - Effect of any management reorganization - Establishment of proper work environment - Ability to foster teamwork among the staff - Ability to resolve employee concerns - Ability to provide engineering support - Adequacy of plant administrative procedures - Amount of contractor usage - Adequacy of contractor oversight - Information exchange with other utilities - Participation in industry groups - Ability to function in the Emergency Response Organization - Coordination with offsite emergency planning officials		

RESTART READINESS ASSESSMENT CHECKLIST

IV.3. ASSESSMENT OF PLANT AND CORPORATE STAFF

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ASSESSMENT OF STAFF	SAP	Open
Applicable Items - Staff commitment to achieving improved performance - Staff's safety consciousness - Understanding of management's expectations/goals - Understanding of plant issues and corrective actions - Morale - Structure of the organization - Effect on the staff of any reorganization - Qualifications and training of the staff - Staff's work environment - Level of attention to detail - Adequacy of staffing - Off-hour plant staffing - Staff overtime usage - Amount of contractor usage - Staff/contractor relationship - Procedure usage/adherence		
2. ASSESSMENT OF CORPORATE SUPPORT	SAP	Open
Applicable Items - Relationship between corporate and the plant staff - Adequacy of the request for corporate services process - Corporate understanding of plant issues - Corporate staff in plant time - Effectiveness of the corporate/plant interface meetings - Adequacy of corporate representation at plant activities - Adequacy of corporate engineering support - Adequacy of corporate design changes - Adequacy of licensing support		

RESTART READINESS ASSESSMENT CHECKLIST

IV.3. ASSESSMENT OF PLANT AND CORPORATE STAFF
- continued -

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
3. OPERATOR ISSUES	SAP	Open

Applicable Items

- Licensed operator staffing meets requirements and licensee goals
- Level of formality in the control room
- Adequacy of requalification training
- Adequacy of equipment operability determination training
- Adequacy of SRO command and control
- Control room/plant operator awareness of equipment status
- Adequacy of plant operating procedures
- Procedure usage/adherence
- Log keeping practices

RESTART READINESS ASSESSMENT CHECKLIST

IV.4. ASSESSMENT OF PHYSICAL READINESS OF THE PLANT

AREA FOR ASSESSMENT		RESPONSIBLE ORGANIZATION	STATUS
1. ASSESSMENT	PHYSICAL READINESS OF THE PLANT	SAP	Open

Applicable Items

- Operability of technical specifications systems
- Operability of required secondary and support systems
- Results of pre-startup testing
- Adequacy of system lineups
- Adequacy of surveillance tests/test program
- Significant hardware issues resolved
- Adequacy of the power ascension testing program
- Adequacy of plant maintenance program effectiveness
- Maintenance backlog managed and impact on operation assessed
- Adequacy of plant housekeeping and equipment storage
- Adequacy of onsite and offsite emergency preparedness

RESTART READINESS ASSESSMENT CHECKLIST

IV.5. ASSESSMENT OF COMPLIANCE WITH REGULATORY REQUIREMENTS

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. ASSESSMENT OF COMPLIANCE WITH REGULATORY REQUIREMENTS	SAP	Open

Applicable Items

- Applicable license amendments have been issued
- Applicable exemptions have been granted
- Applicable reliefs have been granted
- Confirmatory Action Letter conditions have been satisfied
- Significant enforcement issues have been resolved
- Allegations have been appropriately addressed

RESTART READINESS ASSESSMENT CHECKLIST

IV.6. COORDINATION WITH INTERESTED AGENCIES/PARTIES

AREA FOR ASSESSMENT	RESPONSIBLE ORGANIZATION	STATUS
1. COORDINATION WITH INTERESTED AGENCIES/PARTIES	SAP	Open
Applicable Items - Federal Emergency Management Agency - Appropriate State and Local Officials - Appropriate Public Interest Groups - Local News Media		

ATTACHMENT 2

SALEM UNITS 1 & 2 RESTART ACTIVITIES

Major Milestones

The activities listed below comprise the major activities that must be completed prior to the restart of the Salem units.

- NRC approve Salem restart plan.
- NRC perform inspections to evaluate the adequacy of Salem restart activities.
- PSE&G conduct an operational readiness review for each Salem unit.
- PSE&G present the results of their readiness review in a management meeting with NRC open to public observation.
- NRC conduct a meeting with the public to solicit their input.
- NRC conduct a Restart Assessment Team Inspection (RATI).
- NRC internally reviews results of RATI and makes appropriate recommendations regarding Salem unit restarts to NRC Regional Administrator.
- If results are acceptable, NRC will approve PSE&G release from the Confirmatory Action Letter. If further PSE&G action is necessary, communicate it to PSE&G and amend NRC plans, as necessary.

February 12, 1997

Mr. Richard R. Grigg, President and
Chief Operating Officer
Wisconsin Electric Power Company
231 W. Michigan
Milwaukee, WI 53201

Dear Mr. Grigg:

On November 6, 1996, the NRC staff completed the semiannual Plant Performance Review (PPR) of the Point Beach Nuclear Plant. The staff conducts these reviews for all operating nuclear power plants to develop an integrated understanding of safety performance. The results are used by NRC management for planning and allocation of inspection resources. The PPR for Point Beach involved the participation of all technical divisions in evaluating inspection results and safety performance information for the period March 1996 through September 1996. PPRs provide NRC management with a current summary of licensee performance and serve as inputs to the NRC Systematic Assessment of Licensee Performance (SALP) and senior management meeting (SMM) reviews. Following the senior management meeting, held January 14-15, 1997, a letter was sent to Mr. Abdoo on January 27, 1997, informing him of the NRC's concern with the recent decline in performance at Point Beach.

Ordinarily, this letter would advise you of our planned inspection effort resulting from the Point Beach PPR review. However, as you are aware, our inspections during this period have identified significant performance weaknesses in operations, engineering, and maintenance. As a result, we have had a number of management meetings with you and your staff and recently conducted a special operational safety team inspection at your facility. To better assess and address performance issues at the site, your staff is performing a number of extensive reviews and corrective actions. In a letter dated December 12, 1996, you described 81 individual commitments that would be completed prior to Unit 2 restart. These commitments were documented in a Confirmatory Action Letter issued to you on January 3, 1997.

Thus, to assure close NRC oversight of your actions to address performance issues, I decided, in consultation with the Office of Nuclear Reactor Regulation, to form a Unit 2 restart and site performance improvement oversight panel. This panel developed an Oversight Plan (enclosure 1) which describes the makeup and functions of the panel, and includes checklists of areas the NRC will be reviewing in the near future in support of our oversight of the Unit 2 restart and your continued performance improvement initiatives for Units 1 and 2.

Inspection activities associated with the Oversight Plan will consist of resident inspection followup, a Manual Chapter (MC) 40500 team inspection, and other specific inspection followup by regional staff as necessary. The specific dates for the MC 40500 team inspection will depend on when you complete related Unit 2 startup commitments and the availability of our inspectors. We will notify you as soon as we determine the dates for this inspection. We will also notify you when any additional followup inspections are planned. In addition, enclosure 2 details our routine inspection plans through May 1997. It 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.

We also plan to meet with Point Beach management approximately every two weeks prior to the Unit 2 restart and approximately monthly thereafter to discuss the progress of your performance improvement initiatives. These meetings are not listed on the schedule. Resident inspections, including inspections from visiting residents, are also not listed due to their ongoing and continuous nature, nor are the inspections of the Region-based project engineer, who will be regularly assisting the resident inspectors.

Finally, as I discussed during the OSTI exit, I plan to send a special inspection team to Point Beach in about 4 to 5 months to assess the overall effectiveness of your corrective actions and other performance improvement efforts. The specific dates of this inspection will depend on the results of our followup inspections described above, and the date of restart of Unit 2. We will inform you of the schedule for this special inspection at a later date. We will also inform you of any major changes to the Oversight Plan or inspection plan.

If you have any questions, please contact Jack Grobe or Jim McCormick-Barger at (630) 829-9500.

Sincerely,
Original signed by
A. Bill Beach

A. Bill Beach
Regional Administrator

Docket Nos. 50-266; 50-301; 72-500
License Nos. DPR-24; DPR-27

Enclosures:
1. Oversight Plan
2. Inspection Plan

cc w/encl: S. A. Patulski, Site Vice President
A. J. Cayia, Plant Manager
Virgil Kanable, Chief, Boiler Section
Cheryl L. Parrino, Chairman,
Wisconsin Public Service Commission
State Liaison Officer

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DATE	02/ /97		02/ /97		02/ /97		02/ /97		02/12/97	

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Distribution:

cc w/encl: S. A. Patulski, Site Vice President
A. J. Cayia, Plant Manager
Virgil Kanable, Chief, Boiler Section
Cheryl L. Parrino, Chairman,
Wisconsin Public Service Commission
State Liaison Officer

Docket File w/encl
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OFFICE	RIII	E	RIII	E	NRR	E	RIII	E	RIII	
NAME	McB		Leach		Hannon (signing for Partlow)		Grobe		Beach	
DATE	02/4/97		02/5/97		02/5/97		02/7/97		02/ /97	

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ENCLOSURE 1

POINT BEACH UNIT 2 RESTART AND SITE
PERFORMANCE IMPROVEMENT OVERSIGHT PLAN

A. PURPOSE

Beginning in mid-1996, RIII has identified several regulatory concerns at Point Beach that indicate performance at the plant has been weak in several areas. These concerns have resulted in numerous violations and one escalated enforcement case. They cover a broad range of activities and involve weaknesses in the functional areas of Operations, Maintenance, and Engineering. As a result of these concerns, the Region III Regional Administrator, in consultation with the NRR Project Directorate, decided to establish a Point Beach Unit 2 Restart and Site Performance Improvement Oversight Plan (Oversight Plan).

The development of this Oversight Plan was based on a modified Manual Chapter 0350 "Staff Guidelines For Restart Approval," process. Since Point Beach Unit 2 was shutdown for refueling and steam generator replacement, rather than as a result of an event, performance concerns, or specific hardware concerns, and since Unit 1 continues to operate safely, the circumstances associated with Point Beach's performance issues generally do not meet the criteria for fully adopting MC 0350 guidance. However, many of the elements of the guidance were considered appropriate and were adopted.

B. PERFORMANCE CONCERNS

In the past, Point Beach staff did not always raise routine safety issues to plant management or the NRC. This resulted in the appearance of good performance with few identified deficiencies. In addition, they took informal, occasionally nonconservative approaches to addressing operations, maintenance, and engineering problems. Management philosophy fostered a staff culture that focused on keeping the plant operating. Because of this philosophy and culture, many issues were not properly addressed by management or effectively communicated to the NRC.

Historically, operators have responded well to events; however, deficiencies concerning minimal control room staffing, inattentiveness to duty by control room operators, failure to maintain proper equipment configuration control, and unacceptable surveillance and post maintenance testing have been identified during the last year.

Many of Point Beach's performance issues are due to poor engineering practices. Several examples of technically weak operability evaluations have been identified. In addition, engineering identified many design basis document discrepancies, some over one year ago, and failed to properly evaluate and resolve the issues, reflecting the lack of an effective corrective action program. Even after the NRC brought these issues to the staff's attention, the licensee did not take action to properly address a number of potential operability questions until further prompting by the NRC.

The NRC has identified several examples of the licensee fully accepting surveillance testing results that were either unacceptable, marginally acceptable, or did not fulfill TS requirements. For example the licensee:

- Returned a service water pump to service following modifications with the pump in the alert range
- Accepted a motor driven auxiliary feedwater (MDAFW) pump with questionable test results
- Returned a turbine driven auxiliary feedwater (TDAFW) pump to service and started the plant prior to completing all testing
- Continued to operate spent fuel pool heat exchangers when testing indicated they would not meet performance requirements
- Failed to restore some systems following testing:
  - TDAFW pump returned to service with discharge flow path isolated
  - Service water overboard discharge valve not returned to service after service water pump and valve inservice test (IST) completion
  - Safety injection (SI) pump discharge flow meter isolation valves not returned to service after loss of offsite power with safety injection (LOOP-SI) testing
- Failed to perform adequate diesel air start motor testing

In addition, the licensee had not properly incorporated design basis requirements into the IST program for several pumps, and did not adequately control or maintain gages used for testing.

The NRC also has concerns with the licensee's management of the plant's configuration in accordance with the final safety analyses report (FSAR) and design bases. As a result of these concerns, several technical interface agreements (TIAs) have been sent to the Office of Nuclear Reactor Regulation (NRR) describing design-related issues involving containment and service water systems that could impact the startup of Unit 2. In addition, NRR has raised questions concerning control room habitability in that Point Beach relies on self contained breathing apparatuses (SCBAs) and potassium iodide to protect operators from excessive thyroid doses following an accident.

After an enforcement conference with the licensee on September 12, 1996, in which the NRC discussed numerous violations concerning the operation of the facility, Point Beach management provided NRC with a substantial improvement plan. Subsequently, the NRC has continued to find new issues that the licensee had not identified or addressed. These findings indicated that the licensee's corrective actions to address specific concerns had not been fully effective or were too narrowly focused on specific NRC concerns. In addition, little has been done by the licensee in the way of performing self or independent assessments of plant activities to fully bound the magnitude of performance issues, understand the root causes, and implement effective corrective actions. Because of this, the NRC sent a 10 person operational

safety team inspection (OSTI) to Point Beach in December to better define current performance issues and assess the licensee's corrective actions.

OSTI findings included the identification of multiple examples of nonconservative operations and engineering decisions and practices. These findings indicate that issues are broad scope, crossing nearly all organizational boundaries and that corrective action efforts to date have not addressed the licensee's underlying weaknesses. Examples of identified issues include:

- Continued control room operator inattentiveness and nonconservative actions (full reactor coolant system (RCS) pressure leak test while water-solid, isolation of nitrogen to the pressurizer power operated relief valves while at power)
- Technical Specification (TS) interpretations that were nonconservative
- Many design bases document (DBD) open items were identified that had not been entered into the licensee's corrective action program
- Inappropriate emergency diesel generator (EDG) testing (partial loading of EDG during LOOP-SI test; not testing fuel oil transfer pump in auto start mode)
- Operability evaluation that had used nonconservative data to account for reactor trip breaker undervoltage closing times

C. RECENT LICENSEE AND NRC ACTIONS

On December 5, 1996, the NRC met with Point Beach management and discussed many of the performance issues and the actions the licensee is taking to address them. Subsequent to the meeting, on December 12, 1996, the licensee prepared a letter containing commitments that will be completed prior to restart of Unit 2 from the current outage. On January 3, 1997, the NRC issued a Confirmatory Action Letter (CAL) confirming the completion of these items prior to restart of Unit 2.

In addition to performing an OSTI, RIII established a dedicated Oversight Team to thoroughly assess Point Beach's performance and the effectiveness of its corrective actions for identified issues. This team includes an assigned senior manager, a dedicated branch chief (team leader), a new senior resident and two resident inspectors, and additional onsite support from regional and various visiting residents from the better performing RIII sites.

Point Beach management has only recently embraced the full magnitude of their problems. The inspection findings by the residents and the OSTI after the September 1996 enforcement conference, continued to highlight the shortcomings in the licensee's corrective actions and staff performance. Recently, Point Beach management has taken steps to better address these problems. The commitments provided in their December 12, 1996, letter included reviewing a broad range of procedures and work activities, focusing on the adequacy of acceptance criteria, TS implementation, return to service lineups, and independent verification. They also committed to review previously performed activities to verify that proper post maintenance tests (PMTs) were performed,

potentially degraded equipment was identified, and NRC regulations were met. Other significant licensee actions included realigning plant engineering into a system engineering concept to better focus on plant system status and performance, committing to move corporate engineering to the plant site, changing and realigning senior plant and corporate management, and committing to add additional plant staff (up to 40 full time equivalent) from outside. They have also hired a management consultant to assess the overall plant organization and functions, provide training, and recommend improvements.

As a result of increased NRC attention, there has been a positive trend in the licensees identification of issues. The threshold for identifying deficiencies was significantly lowered. Over the last six months, nearly 3 times as many condition reports are being generated as were previously. Within the last month, we have also seen an increase in the number of 10 CFR 50.72 reports. Examples include:

- Cable Separation issue could result in loss of power to safety equipment (inverter)
- Main Steam Safety Valve setpoints nonconservative during low outside temperatures
- Structural items in containment too close to containment liner (seismic issue)
- Safety injection startup times greater than assumed in analyses
- RCS seal return line could rupture post LOCA (GL 96-06 issue)
- Non-safety cable separation issue combined with unreliable molded case circuit breakers could cause loss of containment spray logic power, main steam isolation valve operation, and other emergency safety features

Although the licensee has shown some encouraging signs in acknowledging their performance weaknesses and taking the actions described above, they have yet to demonstrate the ability to perform effective critical self or independent assessments. The problems at Point Beach are widespread and will require substantial time and effort to fully resolve. Sustained progress toward resolving these problems will not be accomplished until the Point Beach management has conducted a root cause assessment of the performance problem areas, understands the root causes, implements effective corrective actions, and begins identifying, reporting, and resolving their own problems without substantial NRC oversight.

D. FORMATION OF A RESTART AND PERFORMANCE IMPROVEMENT REVIEW PANEL

An NRC restart and performance improvement review panel has been established and composed of the members described below. This panel has the responsibility for developing and maintaining this plan and reviewing all available information related to Point Beach's current performance and emerging issues, actions taken by the licensee to address performance weaknesses, and effectiveness of the licensee's corrective actions. Once the panel has determined that the licensee has satisfactorily completed the activities described below for restart of Unit 2, the panel will provide a

written recommendation and the basis for the recommendation to the Region III Regional Administrator for approval. Once licensee performance has improved to a level where this additional NRC attention is no longer necessary, the panel will provide a written recommendation to close out this plan and the basis for the recommendation to the Region III Regional Administrator for approval.

Panel Member Composition

Chairman	J. Grobe, Deputy Director, DRP, RIII
Vice Chairman	J. Hannon, Director, Project Directorate III-1, NRR
Panel Member	M. Leach, Acting Deputy Director, DRS, RIII
Panel Member	J. McCormick-Barger, Team Leader, Point Beach Oversight Team
Panel Member	L. Gundrum, Project Manager, NRR
Panel Member	T. McMurtray, Senior Resident Inspector, Point Beach
Panel Member	M. Kunowski, Project Inspector, RIII

The panel will initially meet with Point Beach management (open to the public) at least once every two weeks to discuss the facilities progress toward resolving performance issues and completing the commitments addressed in the December 12, 1996, letter to the NRC. The location of these meetings will alternate between the regional office and near the site to allow for public observation. The panel members will also meet weekly to informally discuss plant performance and progress and NRC progress in addressing the activities listed below.

E. ACTIVITIES REQUIRING RESOLUTION AND NRC FOLLOWUP PRIOR TO UNIT 2 RESTART

Point Beach Unit 2 is currently in a refueling and steam generator replacement outage. Restart is planned for early March. Although there is an open CAL to address specific licensee Unit 2 pre-startup commitments, NRC has not identified specific issues that would result in a Unit 1 shutdown. Nevertheless, for NRC to be assured that the licensee has taken adequate corrective actions to address the identified issues prior to Unit 2 restart, the NRC must review the following areas once the licensee has completed the commitments specified in their December 12, 1996, letter and documented in the January 3, 1997, CAL. Should the NRC find that the performance issues were not adequately addressed, the panel will revise the action plan and may issue a revised CAL to address additional corrective actions prior to startup of Unit 2 or seek other regulatory actions, as needed, to assure that performance issues are acceptably addressed. Because many of the Point Beach problems stem from deep seated cultural issues, full resolution of the problems may take a considerable amount of time; however, the panel will evaluate the acceptability of Point Beach's readiness to restart based on the quality of their self or independent assessments, their identification and understanding of root causes for performance problems, and the effectiveness of corrective actions taken. The NRC will continue to monitor the licensee's ability to operate the plant in accordance with NRC regulations and Point Beach license bases throughout the execution of the following checklist:

OVERSIGHT PLAN INSPECTION FOLLOWUP CHECKLIST PRIOR TO UNIT 2 STARTUP

REVIEW AREA

1. CONDUCT OF OPERATIONS

   1.a CONTROL ROOM STAFFING

   1.b CONTROL ROOM OPERATOR ATTENTIVENESS

   1.c CONTROL OF EQUIPMENT CONFIGURATION/OPERATIONS CHECKLISTS

   1.d CONDUCT OF PMT AND SVI TESTING

   1.e OPERATOR LOG KEEPING

   1.f DANGER TAG CONTROL

   1.g PROCEDURE ADHERENCE

   1.h ADMIN CONTROL OF TS REQUIREMENTS

2. CONDUCT OF ENGINEERING

   2.a OPERABILITY EVALUATION

   2.b 10 CFR 50.59 REVIEWS

   2.c JCOs

   2.d RESOLUTION OF DBD ISSUES

   2.e SVI/PMT/IST SATISFIES DESIGN BASES

   2.f RESOLUTION OF CRs & OTHER ISSUES

   2.g SYS ENGR EFFECTIVENESS

3. CONDUCT OF MAINTENANCE

   3.a PMT

   3.b RESTORATION STEPS: WORK PACKAGES & PROCEDURES

   3.c ADDRESSING PROBLEMS; MGMT OF BACKLOG

   3.d FME CONTROL

   3.e TESTING INSTRUMENT CONTROL

REVIEW AREA

4. CONDUCT OF PAST ACTIVITIES

   4.a PAST MAINTENANCE WORK ORDERS

   4.b CLOSED CONDITION REPORTS

   4.c NUTRK LIST REVIEW

   4.d ACTIVE JCOs

   4.e PAST 10 CFR 50.59 EVALUATIONS

5. **RESOLUTION OF LICENSING ISSUES**

   5.a CONTAINMENT ACCIDENT ANALYSES

   5.b SERVICE WATER SYS

   5.c CONTROL ROOM HABITABILITY

   5.d CONTAINMENT FAN COOLER OPERATION (WATER HAMMER/THROTTLED VALVES)

   5.e MAIN CONTROL BOARD ELECTRICAL SEPARATION

   5.f S/G REPLACEMENT AMENDMENTS

   5.g LOW TEMP OVERPRESSURE LIMITS

6. **SELF ASSESSMENT PROGRAM**

   6.a QA PROGRAM; ROOT CAUSE IDENTIFICATION

   6.b INDUSTRY EXPERIENCE REVIEW PROGRAM

   6.c INDEPENDENT REVIEW GROUP

   6.d CONDITION REPORTING SYSTEM

   6.e EXTERNAL AUDIT PROGRAM; EFFECTIVENESS OF CORRECTIVE ACTION

7. **TS/FSAR/DESIGN BASES IMPROVEMENTS**

   7.a JCO PROGRAM

   7.b TS INTERPRETATION PROGRAM

REVIEW AREA

8. ISSUES NOT COVERED ABOVE

8.a MANUAL CONTROL OF MDAFW PUMP DURING LOOP

8.b EDG TESTING

8.c CONTAINMENT PENETRATION TESTING

8.d MOLDED CASE CIRCUIT BREAKERS

8.e CONTAINMENT SEISMIC ISSUES

8.f RHR PUMP OPERABILITY (2P-10A)

8.g S/G REPLACEMENT RESTORATION

8.h NI RESTORATION (SOURCE RANGE N-31)

8.i PRESSURIZER SAFETY VALVES RESTORATION

F. ACTIVITIES REQUIRING RESOLUTION AND NRC FOLLOWUP PRIOR TO DISBANDING REVIEW PANEL

The panel will continue to closely monitor and assess Point Beach performance until significant and lasting improvements in performance have been observed. Following restart of Unit 2, the panel will meet with the licensee at least monthly to review performance and improvement progress. The panel will also meet internally approximately every other week to discuss both licensee and NRC activities. An important responsibility of the panel is to continually assess the licensee's performance. Should the panel find that performance issues continue to be identified, indicating that corrective actions were not adequate or comprehensive, the panel will formulate an action plan that may include a revised CAL to address additional corrective actions, or other regulatory actions, as needed, to assure that performance issues are acceptably addressed. The following areas will be specifically assessed by the panel during this post Unit 2 restart period. Additional NRC activities may be developed and included in this plan, once Unit 2 is near startup and the magnitude of remaining issues and activities are better defined.

OVERSIGHT PLAN INSPECTION FOLLOWUP CHECKLIST POST UNIT 2 STARTUP

REVIEW AREA

1. CONDUCT OF OPERATIONS

2. CONDUCT OF ENGINEERING

   2.a DESIGN RECONSTITUTION

   2.b DBD OPEN ITEM RESOLUTION

   2.c FSAR UPDATE PROGRAM

   2.d DESIGN CHANGE AND TEMPORARY MODIFICATION PROGRAM

3. CONDUCT OF MAINTENANCE

ACRONYMS USED

ADMIN	ADMINISTRATIVE
CR	CONDITION REPORT
DBD	DESIGN BASES DOCUMENT
EDG	EMERGENCY DIESEL GENERATOR
ENGR	ENGINEER
FME	FOREIGN MATERIAL EXCLUSION
FSAR	FINAL SAFETY EVALUATION REPORT
IR	INSPECTION REPORT
IST	INSERVICE TEST
JCO	JUSTIFICATION FOR CONTINUED OPERATION
LOOP	LOSS OF OFFSITE POWER
MDAFW	MOTOR DRIVEN AUXILIARY FEEDWATER
NI	NUCLEAR INSTRUMENTATION
NUTRK	NUCLEAR TRACKING SYSTEM
OPS	OPERATIONS
OSTI	OPERATIONAL SAFETY TEAM INSPECTION
PB	POINT BEACH
PMT	POST MAINTENANCE TEST
REQ	REQUIRED
RHR	RESIDUAL HEAT REMOVAL
SCBAs	SELF CONTAINED BREATHING APPARATUS
S/G	STEAM GENERATOR
SRI	SENIOR RESIDENT INSPECTOR
SYS	SYSTEM
SVI	SURVEILLANCE
TEMP	TEMPERATURE
TS	TECHNICAL SPECIFICATION
QA	QUALITY ASSURANCE

ENCLOSURE 2

POINT BEACH

INSPECTION PLAN

INSPECTION	TITLE/ PROGRAM AREA	NUMBER OF INSPECTORS	PLANNED INSPECTION DATES	TYPE OF INSPECTION - COMMENTS
IP 83750	Radiation Protection/ Plant Support	1	3/3-7/97	CI Routine Radiation Protection
IP 83750	Radiation Protection/ Plant Support	1	4/21-25/97	CI Inspection/ Refueling Outage Focus
IP 81700	Security/Plant Support	1	5/5-9-97	CI Security Inspection

IP - Inspection Procedure

TI - Temporary Instruction

CI - Core Inspection - Minimum NRC Program (mandatory all plants)

RI - Regional Initiative