

SOUTH TEXAS PROJECT RESTART ACTION PLAN - REVISION 2

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A. GENERAL

A.1 PURPOSE

To provide a basis to plan and coordinate NRC review activities for restart of the South Texas Project units.

A.2 OBJECTIVES

To ensure that NRC review efforts are consistently developed and implemented, specific guidance is provided to support:

- a. Determining restart issues for review,
- b. Identification of the basic tasks needed to review and approve plant restart, and
- c. Coordination and tracking of restart review activities.

A.3 BACKGROUND

Both units at STP were shut down in early February 1993. They have remained shut down as a result of numerous broad problems identified by the NRC and the licensee.

On February 3, 1993, following a reactor trip, the Unit 2 turbine-driven auxiliary feedwater pump started and immediately tripped on overspeed. On February 4, 1993, Unit 1 was required to shut down as a result of repeated failures of the turbine-driven auxiliary feedwater pump to start on demand and operate without tripping on overspeed. As a result of these turbine-driven auxiliary feedwater pump problems, NRC issued a Confirmatory Action Letter (CAL) to the Houston Lighting and Power (HL&P) Company on February 5, 1993, and dispatched an augmented inspection team (AIT) to investigate the details surrounding the turbine-driven auxiliary feedwater pump problems. The CAL, and its two supplements, identified a number of issues which required resolution prior to either unit being restarted.

The NRC Region IV Regional Administrator chartered the STP Review Panel on March 11, 1993. The purpose of the STP Review Panel is to:

- Assure consistent approach to issues being identified at South Texas Project and attempt to reach an agency consensus and united approach to addressing the problems at South Texas Project.
- Assure that the followup on safety significant issues is being properly coordinated and scheduled.
- Schedule significant meetings and inspections.
- Assure that the views and concerns of different NRC offices are properly addressed.
- Assure proper coordination for the followup of issues that are identified by the Diagnostic Evaluation Team (DET) inspection.

On April 12, 1993, it was determined that NRC Inspection Manual Chapter 0350, "Staff Guidelines for Restart Approval," was applicable for the South Texas Project Electric Generating Station (STP) because of its extended shutdown and previous indications of serious deficiencies in licensee management effectiveness. The STP Review Panel assumed the role and responsibilities of the STP Restart Panel. These responsibilities include:

1. Reviewing available information related to the plant shutdown
2. Developing the Restart Action Plan
3. Reviewing the licensee's corrective action or improvement program and ensuring that it addresses identified problems and weaknesses
4. Maintaining an ongoing overview of licensee performance
5. Conducting periodic meetings with the licensee to discuss progress toward satisfactory completion of the program
6. Providing oversight and coordination of the NRC's followup activities, reviewing inspection plans and findings, and reviewing licensee performance; identifying areas where NRC inspection and technical review are needed
7. Providing periodic assessments of licensee performance and corrective actions to NRC management
8. Providing a recommendation to the Regional Administrator and the Director of NRR for approval of restart after satisfactory completion of the licensee's restart program

In addition to the AIT activities, several special inspections have been conducted since February 1993, in response to compliance and regulatory issues at STP. Several of these inspections resulted in enforcement action being taken. Corrective actions have been proposed by the licensee.

Additionally, the NRC Office for Analysis and Evaluation of Operational Data conducted a diagnostic evaluation of the STP during the period March 29 to April 30, 1993. The findings of this effort were forwarded to the licensee on June 10, 1993. Numerous items were documented in this report, including a number of issues that NRC considered of sufficient scope and safety significance to require resolution prior to either unit being restarted.

In initial response to the Diagnostic Evaluation Team (DET) report, the licensee submitted a letter on August 5, 1993, and forwarded their Operational Readiness Plan (ORP) on August 28, 1993. In addition to responding to the DET short-term problems that the licensee considered necessary to resolve prior to restart, the ORP addressed the planned actions in response to the CAL, special and routine Regional inspections, and other identified concerns and problems. The ORP addressed initiatives that the licensee considered necessary to be completed prior to the resumption of power operation on either unit. The licensee's Business Plan was scheduled to be issued on October 15, 1993. It will describe the initiatives being undertaken to effect sustained performance improvements at the site.

A.4 RESTART ACTION PLAN OVERVIEW

A comprehensive NRC review of the restart process is required. The plants are in a safe shutdown condition and measures are in place to physically maintain the plants in a safe shutdown condition. This Restart Action Plan is intended to include expected NRC actions that will be required to be taken before restart of the STP units, including those actions not directly related to the initiating event. The plan defines: the actions which must be accomplished by the NRC, as a minimum, to approve restart; which organization has the lead responsibility for each action; which plant specific issues must be resolved before restart; and who has the actual responsibility for restart approval. The Panel retains responsibility for assessment of the issue and determining whether the issue has been satisfactorily addressed. The STP Restart Panel will make updates and minor revisions to the Restart Action Plan without seeking approval from the Regional Administrator and the Associate Director for Projects. Revisions which are determined by the Panel to be significant will be submitted for approval.

Section B, "PROCESS," of this plan provides generic tasks that support the Restart Action Plan. This section outlines the overall review process needed for the NRC to authorize restart of the facility.

Section C, "ISSUES," contains issues for consideration and areas requiring assessment during the restart review. The issues in this section are broader than the plant specific restart issues and have been determined to be applicable because of the declining performance of the licensee and the extended length of the shutdown. It will not be necessary for each item on the checklists to be assessed, but enough items on a checklist must be reviewed to assess the broader areas such as management oversight and effectiveness.

Section D, "PLANT SPECIFIC STARTUP ISSUES," lists plant-specific issues which must be evaluated and resolved prior to plant startup. This list was developed from a review of the Diagnostic Evaluation Team Report, the Executive Director for Operations staff actions memorandum following the Diagnostic Evaluation, the Confirmatory Action Letter and its supplements, the licensee's Operational Readiness Plan, the allegation review process, and routine and special HRC reports, including the Augmented Inspection. Criteria for selection of restart issues ensured inclusion of issues whose resolution is required to: ensure safe facility operation; comply with Technical Specification and other regulatory requirements; satisfy the plant's design and licensing basis; ensure effective management oversight; or ensure an effective corrective action process. Each of the restart issues is, or will be, included on the licensee's restart issue list. Prior to restarting either STP unit, the licensee will resolve each restart issue to its satisfaction and to the NRC's satisfaction. The licensee will provide a briefing for the NRC staff on the readiness for plant restart, including the issues included in the Confirmatory Action Letter and its supplements prior to restart. This meeting will be open to public observation.

Section E, "RESTART INSPECTIONS," lists the inspections to be completed to evaluate the licensee's response to the startup issues. Issues listed in Sections C and D will be assessed or inspected by resident inspectors, regional inspectors, or an Operations Readiness Assessment Team. In addition, some areas or items may be assessed by the STP Restart Panel.

Each of the checklists in Sections B and C include columns to record the NRC organization with lead responsibility for the item and the date the item was closed. The list in Section D includes a column to record the date the issue was closed. The reference/information notes following each checklist table will document the detailed status of each item, including reference to closeout documentation.

The STP Restart Panel is responsible for implementation of the STP Restart Action Plan. The STP Restart Panel will maintain and periodically review the Restart Action Plan. These actions should: (1) determine review status, (2) verify necessary tasks and items are complete for each phase of the review, and (3) ensure that review tasks and issues for assessment remain consistent with the known facts and status of the restart effort. The generic lists in Sections B and C should be reviewed when significant milestones are completed and prior to restart authorization to ensure any emerging items are considered.

B. PROCESS

B.1 INITIAL NRC RESPONSE:

This section outlines the general NRC restart review process. The major process steps (i.e., Initial Response, Initial Notifications, etc.) are broken down into potential tasks that are provided in a checklist format. The short discussion before each major process step provides insight into the intended activity. An effort was made to place the major steps and tasks in the general order of performance; however, the exact sequence of events cannot be predicted in advance. Thus, many of the major process steps and the specific tasks are expected to be performed in parallel.

The tables provide a column to indicate the lead responsible organization and closeout date. Tasks which the restart panel has determined to not be applicable to the STP restart process are marked "NA."

TASK	RESP ORG	DATE CLOSED
a. Initial notification and NRC management discussion of known facts and issues	RIV	02/04/93
b. Identify/implement additional inspections (i.e., AIT, IIT, or Special)	RIV	02/04/93
c. Determine need for formal regulatory response (i.e., Order or CAL)	RIV	02/05/93
d. Determine need for senior management involvement	RIV, NRR	03/11/93
e. Identify other parties involved, i.e., NRC Organizations, other Federal agencies, and industry organizations	RIV, NRR	02/25/93

Reference/Information

B.1.a PN 4-93-003

B.1.b PN 4-93-003; AIT dispatched. AIT Inspection Report 9307 issued on 03/24/93.

B.1.c PN 4-93-003; CAL 4-93-04 issued

B.1.d STP Review Panel Charter approved

B.1.e AEOD was the only other organization involved in the short-term response.

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.

TASK	RESP ORG	DATE CLOSED
a. Issue Daily and Directors Highlight	NRR	Ongoing
b. Issue PN	RIV	02/04/93
c. Conduct Commissioner Assistants' Briefing	RIV	06/25/93
d. Issue Commission Paper	NA	NA
e. Cognizant Federal agencies notified (i.e., FEMA, EPA, DOJ, DOL)	NA	NA
f. State and Local Officials notified	RIV	Ongoing
g. Congressional notification	NA	NA

Reference/Information

B.2.a Directors Highlight 02/17/93 and approximately weekly thereafter

B.2.b PN 4-93-003

B.2.c Conducted in conjunction with the Commission briefing on the results of the June 93 senior managers meeting.

B.2.d NA

B.2.e NA

B.2.f Monthly public meeting announcements. The Deputy Regional Administrator and the STP Restart Panel Chairman briefed the Texas Public Utility Commission and the Austin City Council on 09/09/93. The Governor's office has been kept apprised of events at the South Texas Project through her appointed State Liaison Officer. The Regional State Liaison Officer contacts the Governor's representative when the NRC and STP have public meetings. Additionally, the Governor's representative is mailed or faxed meeting notices, news releases, and inspection reports.

B.2.g PN 4-93-003. NRR discussed with Congressional Affairs.

B.3 ESTABLISH AND ORGANIZE THE NRC REVIEW PROCESS:

It will be necessary to establish and organize the NRC restart review to ensure the effective coordination of resources in evaluating the restart process. Effective interfaces within and outside the NRC are critical to properly identify, coordinate, and resolve the pertinent issues. Consider both regional and headquarters offices of cognizant State and Federal agencies.

TASK	RESP ORG	DATE CLOSED
a. Establish the Restart Panel	RIV	03/11/93
b. Assess available information (i.e., inspection results, licensee self-assessments, industry reviews)	PANEL	10/21/93
c. Obtain input from involved parties both within NRC and other Federal agencies, such as FEMA, EPA, DOJ, DOL	PANEL	Ongoing
d. Conduct Regional Administrator Briefing	PANEL	Ongoing
e. Conduct NRR Executive Team Briefing	NRR	06/93
f. Develop the Case Specific Checklist (CSC)	RIV/DRP	10/21/93
g. Develop the Restart Action Plan	RIV/DRP	10/21/93
h. Regional Administrator approves Restart Action Plan	RIV	10/21/93
i. NRR Associate Director and/or NRR Director approves Restart Action Plan	NRR	10/25/93
j. Implement Restart Action Plan	PANEL	Ongoing
k. Modify CAL/Order as necessary	RIV/DRP	05/07/93

Reference/Information

- B.3.a First Panel meeting held on 02/25/93. Panel charter approved on 03/11/93.
- B.3.b Panel meeting notes of 02/25/93. Restart Action Plan approved 10/21/93.
- B.3.c No external issues identified. R. Emch contacted FEMA HQ Marty DiGregory on 12/22/93. No off-site EP issues affect restart.
- B.3.d Briefings provided following Panel meetings.
- B.3.e Full discussion at June 93 and January 94 Senior Managers Meetings. NRR will provide periodic Executive Team briefings.
- B.3.f This document includes the CSC.

- B.3.g This document is the Restart Action Plan.
- B.3.h Restart Action Plan approved by Regional Administrator 10/21/93.
- B.3.i Restart Action Plan approved by NRR Associate Director 10/25/93.
- B.3.j Restart Action Plan implementation in progress 10/25/93.
- B.3.k CAL Supplement issued May 7, 1993. CAL Supplement 2 issued on October 15, 1993.

B.4 REVIEW IMPLEMENTATION:

The review can be accomplished by a variety of methods including inspections, testing, evaluation of licensee self-assessments, evaluation of licensee action plans, and regulatory actions (i.e., Orders, CAL's). Early establishment of the review areas will assist in defining the methods to perform the review. Once the licensee has developed its corrective action plan, the NRC shall review that plan to verify its completeness and adequacy. The NRC will also need to determine which corrective actions will be required to be implemented before restart and, thus, become restart issues which can be deferred to some later date as long-term corrective actions. The discussions and issues provided in Section C of this appendix provide additional information to support the review activities described below.

B.4.1 Root Causes and Corrective Actions:

TASK	RESP ORG	DATE CLOSED
a. Evaluate findings of AIT, IIT, or Special Team Inspection	RIV	03/24/93
b. Licensee performs root cause analysis and develops corrective action plan for root causes	PANEL	10/15/93
c. NRC evaluates licensee's root cause determination and corrective action plan	PANEL	11/18/93

Reference/Information

- B.4.1.a AIT IR 9331, AIT Followup IR 9305 dated 04/08/93.
- B.4.1.b DET response status letter submitted 08/05/93. Operational Readiness Plan submitted 08/28/93. Business Plan submitted 10/15/93. ORP clarification submitted 12/31/93.
- B.4.1.c NRC letters of 08/26/93 and 09/22/93 acknowledged receipt of licensee submittals of 08/05/93 and 08/28/93. NRC letter of 11/18/93 acknowledged receipt of Business Plan.

B.4.2 Assessment of Equipment Damage:

This section is not applicable for the South Texas Project restart approval.

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 table outlines steps to determine the restart issues and NRC's evaluation of their resolution.

TASK	RESP ORG	DATE CLOSED
a. Review/evaluate licensee generated restart issues	PANEL	10/05/93
b. Independent NRC identification of restart issues (consider sources external to NRC and licensee)	PANEL	09/27/93
c. NRC/licensee agreement on restart issues	PANEL	10/15/93
d. Evaluate licensee's restart issues implementation process	PANEL	Ongoing
e. Evaluate licensee's implementation verification process	PANEL	Ongoing

Reference/Information

- B.4.3.a Public meeting and Panel meeting.
- B.4.3.b Panel meeting notes. IR 9331
- B.4.3.c CAL Supplement 2 issued. Lists compared in IR 9333.
- B.4.3.d Refer to IR 9331 and subsequent reports.
- B.4.3.e Line management assessment and independent assessment processes reviewed in IRs 9333 and 9343.

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.

TASK	RESP ORG	DATE CLOSED
a. Obtain public comments	PANEL	Ongoing
b. Obtain comments from State and Local Officials	PANEL	Ongoing
c. Obtain comments from applicable Federal agencies	PANEL/NRR	NA

Reference/Information

B.4.4.a DET public exit meeting at site 06/03/93. Public meetings at site 07/16/93 and 09/08/93. Public meeting in the RIV office 10/05/93. Public meetings at site 10/29/93, 12/02/93, and 01/07/94.

B.4.4.b The Deputy Regional Administrator and the STP Restart Panel Chairman briefed the Texas Public Utility Commission and the Austin City Council on 09/09/93. City of Austin representatives met with the Restart Panel Chairman on 11/16/93. The Governor's office has been kept apprised of events at the South Texas Project through her appointed State Liaison Officer. The Regional State Liaison Officer contacts the Governor's representative when the NRC and STP have public meetings. Additionally, the Governor's representative is mailed or faxed meeting notices, news releases, and inspection reports.

B.4.4.c Not needed for implementation review.

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 prior to restart are complete and that the plant is physically ready for restart. This table provides actions associated with completion of significant NRC reviews and preparations for restart.

TASK	RESP ORG	DATE CLOSED
a. Evaluate licensee's restart readiness self-assessment	PANEL	Ongoing
b. NRC evaluation of applicable items from section C "ISSUES" complete	PANEL	
c. Restart issues closed	PANEL	
d. Conduct NRC Restart Readiness Team Inspection	NRR	
e. Issue Augmented Restart Coverage Inspection Plan	RIV/DRP	
f. Comments from other parties considered	PANEL	
g. Determine that all conditions of the CAL and its Supplements are satisfied	PANEL	
h. Re-review of Generic Restart Checklist complete	PANEL	

Reference/Information

- B.4.5.a Discussed in IRs 9333 and 9343.
- B.4.5.b
- B.4.5.c
- B.4.5.d
- B.4.5.e
- B.4.5.f
- B.4.5.g
- B.4.5.h

B.5 RESTART AUTHORIZATION:

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 confirm that all actions are substantially complete and that the panel has not overlooked any items.

TASK	RESP ORG	DATE CLOSED
a. Prepare restart authorization document and basis for restart	RIV/DRP	
b. NRC Restart Panel approves Restart Authorization	PANEL	
c. No restart objections from other applicable HQ offices	PANEL	
d. No restart objections from applicable Federal agencies	PANEL	
e. Regional Administrator concurs in Restart Authorization	RIV	
f. NRR Associate Director and/or NRR Director Concurs in Restart Authorization	NRR	
g. EDO concurs in Restart Authorization	RIV	
h. Conduct ACRS briefing/notification	NRR	NA
i. Conduct Commission briefing/notification	NA	NA
j. Commission concurs in Restart Authorization	NA	NA
k. Regional Administrator authorizes restart	RIV	

Reference/Information

- B.5.a
- B.5.b
- B.5.c
- B.5.d On 12/22/93 Richard Emch discussed STP with FEMA HQ Marty DiGregory. No off-site EP issues affect STP restart.
- B.5.e
- B.5.f
- B.5.g
- B.5.h Preliminary ACRS staff notification made by M. Virgilio to J. Larkins 05/08/93. Not required prior to restart. Briefing will be provided after restart if requested.
- B.5.i Not required prior to restart but will be accomplished during 1/27/94 operating reactors briefing.
- B.5.j NA
- B.5.k

B.6 RESTART AUTHORIZATION NOTIFICATION:

Notify the applicable parties of the restart authorization. Communication of planned actions is important at this stage to ensure that NRC intentions are clearly understood.

TASK	RESP ORG	DATE CLOSED
a. Commission	NRR	
b. EDO	RIV/NRR	
c. Congressional Affairs	NRR	
d. ACRS	NRR	NA
e. Applicable Federal Agencies	RIV/NRR	
f. Public Affairs	RIV	
g. State and Local Officials	RIV	

Reference/Information

B.6.a

B.6.b

B.6.c

B.6.d Not required prior to restart. Briefing will be provided after restart if requested.

B.6.e

B.6.f

B.6.g

C. ISSUES

C.1 ASSESSMENT OF ROOT CAUSE IDENTIFICATION AND CORRECTION:

C.1.1 ROOT CAUSE ASSESSMENT:

The root cause(s) of the event or the conditions requiring the shutdown should be identified and corrected. A comprehensive licensee corrective action plan should be developed that addresses the root cause(s) and all applicable issues including corrective action, implementation, and verification. The corrective action plan should also include sufficient measures to prevent recurrence of problems. The NRC shall review the licensee's corrective action plan to verify its completeness and adequacy and to determine which corrective actions will be required to be implemented before restart and which can be deferred to some later date as long-term corrective actions.

The NRC staff will review the licensee's corrective action activities and use the appropriate tools available in the regulatory program to determine the acceptability of these actions with respect to safe operations. The tools which are available include: staff reviews; the systematic assessment of licensee performance (SALP); inspections, including special team inspections; requests under 10 CFR 50.54(f); senior management meetings; enforcement conferences; and a restart panel. The results of the staff's reviews will be documented by safety evaluations, license amendments, orders, Confirmatory Action Letters, inspection reports, Commission meeting transcripts, and enforcement documents.

ISSUES	RESP ORG	DATE CLOSED
1. Conditions requiring the shutdown are clearly understood	RIV	02/05/93
2. Root causes of the conditions requiring the shutdown are clearly understood	PANEL	06/10/93
3. Root causes of other significant problems are clearly understood	PANEL	06/10/93
4. Evaluate adequacy of the root cause analysis program	RIV NRR/DRIL	

Reference/Information

1. CAL of 02/05/93; CAL Supplements of 05/07/93 and 10/15/93; DET Report of 06/10/93
2. CAL of 02/05/93; CAL Supplements of 05/07/93 and 10/15/93; DET Report of 06/10/93. TDAFW issues discussed in IR 9338.
3. CAL of 02/05/93; CAL Supplements of 05/07/93 and 10/15/93; DET Report of 06/10/93
4. Favorable findings in IR 9343.

C.1.2 DAMAGE ASSESSMENT:

Not applicable for South Texas Project.

C.1.3 CORRECTIVE ACTIONS:

ISSUES	RESP ORG	DATE CLOSED
1. Evaluate adequacy of the comprehensive corrective action plan	PANEL	11/18/93
2. Evaluate adequacy of the corrective action programs for specific root causes	RIV NRR/DRIL	Ongoing
3. Assess control of corrective action item tracking	RIV NRR/DRIL	
4. Effective corrective actions for the conditions requiring the shutdown have been implemented	RIV NRR/DRIL	11/22/93
5. Effective corrective actions for other significant problems have been implemented	RIV NRR/DRIL	
6. Adequacy of the licensee's corrective action verification process	RIV NRR/DRIL	

Reference/Information

1. DET response status letter submitted 08/05/93. Operational Readiness Plan submitted 08/28/93. Business Plan submitted 10/15/93. NRC letters of 08/26/93 and 09/22/93 acknowledged receipt of licensee submittals of 08/05/93 and 08/28/93. NRC letter of 11/18/93 acknowledged receipt of Business Plan.
- 2.
3. IR 9333 found that appropriate mechanisms were in place to control SPR backlogs and manage new incoming SPRs. SPR backlog noted in IR 9343.
4. IR 9338 addressed root causes for TDAFW pump issues.
- 5.
- 6.

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 involvement in self-assessment is treated separately.

ISSUES	RESP ORG	DATE CLOSED
1. Effectiveness of Quality Assurance Program	RIV/DRS	12/14/93
2. Adequacy of Industry Experience Review Program	RIV/DRS	12/14/93
3. Adequacy of licensee's Independent Review Groups	RIV/DRS	12/14/93
4. Adequacy of deficiency reporting system	RIV NRR/DRIL	
5. Staff willingness to raise concerns	RIV/DRS	01/ /94
6. Effectiveness of PRA usage	NA	NA
7. Adequacy of Commitment Tracking Program	NA	NA
8. External audit (i.e., INPO) capability	PANEL	
9. Quality of 10 CFR 50.72 and 50.73 Reports	NA	NA

Reference/Information

1. Program adequacy noted in IR 9343.
2. Program adequacy noted in IR 9343.
3. Review group adequacy noted in IR 9343.
- 4.
5. Addressed in IR 9352 (Draft).
6. NRC review of licensee's PSA completed 08/31/93.
7. NA
8. INPO review/assistance visit completed 09/24/93. Other independent reviews have been conducted in the areas of security management, standby diesel generators, employee concerns program, and operational readiness.
9. NA

C.2 ASSESSMENT OF LICENSEE MANAGEMENT:

The licensee's management organization should be assessed by NRC staff to ensure that qualified personnel, the proper environment, and resources are provided to ensure that the problems and their root causes have been or are being rectified. The organization must demonstrate that it can coordinate, integrate, and communicate its objectives so that they are assigned appropriate priorities regarding safety significance and are completed in a timely manner. NRC reviews will determine if the licensee has effective corporate management oversight and involvement in plant operations and problem resolution.

The licensee's management must appreciate the safety significance of certain issues and ensure that these issues are resolved. The licensee's organization should: (1) exhibit good teamwork among its subelements; (2) provide strong engineering and technical support for plant activities; (3) possess the internal ability to recognize safety problems, develop and implement adequate corrective actions and verify their effectiveness; (4) possess an independent self-assessment capability that can identify and correct performance problems; and (5) have adequate administrative and technical resources available to accomplish the stated goals and objectives.

C.2.1 Management Oversight and Effectiveness

ISSUES	RESP ORG	DATE CLOSED
1. Management commitment to achieving improved performance	PANEL NRR/DRIL	
2. Performance goals/expectations developed for the staff	PANEL NRR/DRIL	
3. Goals/expectations communicated to the staff	PANEL NRR/DRIL	
4. Resources available to management to achieve goals	PANEL NRR/DRIL	
5. Qualification and training of management	PANEL NRR/DRIL	
6. Management's commitment to procedure adherence	PANEL NRR/DRIL	
7. Management involvement in self-assessment and independent self-assessment capability	PANEL NRR/DRIL	
8. Effectiveness of management review committees	PANEL NRR/DRIL	
9. Effectiveness of internal management meetings	PANEL NRR/DRIL	
10. Management in-plant time	PANEL NRR/DRIL	
11. Management's awareness of day-to-day operational concerns	PANEL NRR/DRIL	
12. Ability to identify and prioritize significant issues	PANEL NRR/DRIL	
13. Ability to coordinate resolution of significant issues	PANEL NRR/DRIL	
14. Ability to implement effective corrective actions	PANEL NRR/DRIL	

Reference/Information

1. Favorable general comments in IR 9343. Other restart inspections noted good management response to correcting problems related to the restart issues.
2. Favorable comments in IR 9343.
3. Favorable comments in IR 9343.
- 4.
- 5.
- 6.
7. Favorable comments in IR 9343.
8. Favorable comments in IR 9343.
- 9.
- 10.
- 11.
12. Favorable comments in IR 9343.
13. Favorable comments in IR 9343.
14. Favorable comments in IR 9343.

C.2.2 Management Organization and Support:

ISSUES	RESP ORG	DATE CLOSED
1. Structure of the organization	PANEL	12/16/94
2. Ability to adequately staff the organization	RIV/DRS	12/16/94
3. Effect of any management reorganization	PANEL	
4. Establishment of proper work environment	RIV NRR/DRIL	
5. Ability to foster teamwork among the staff	RIV NRR/DRIL	
6. Ability to resolve employee concerns	RIV/DRS	01/ /94
7. Ability to provide engineering support	RIV/DRS NRR/DRIL	01/ /94
8. Adequacy of plant administrative procedures (SPR, PMT, Work Control, ECO)	RIV/DRP/DRS	
9. Information exchange with other utilities	RIV/DRS	12/14/93
10. Participation in industry groups	RIV/DRS	12/14/93
11. Ability to function in the emergency response organization	RIV/DRSS	12/08/93
12. Coordination with offsite emergency planning officials	NA	NA

Reference/Information

1. IR 9341 addressed operations and maintenance. Reorganization addressed in several public meetings.
2. IR 9341 addressed operations and maintenance.
3. IR 9347 addressed effect on Emergency Preparedness.
4. Favorable findings for operations department noted in IR 9341.
5. Favorable comments in IR 9343.
6. Addressed in IR 9352 (Draft).
7. Good support for operations noted in IR 9341. Addressed in IR 9345 (Draft).
8. Work control process addressed in IR 9353.
9. Addressed in IR 9343.
10. Addressed in IR 9343.
11. IR 9347.
12. NA

C.3 ASSESSMENT OF PLANT AND CORPORATE STAFF:

The licensee staff must be capable of recognizing and carrying out their responsibilities to ensure public health and safety. An adequate number of fully qualified licensee staff shall be assigned. A proactive attitude toward safety issues should be demonstrated in all aspects of operations. In this regard, the licensee staff should display attentiveness to duty, fitness for duty, a disciplined approach to activities, a sensitivity for trends in the plant, security awareness, an openness of communications, and a desire for teamwork that supports effective relations between different groups (e.g., management, operations, health physics, maintenance, engineering, security, and contractors).

C.3.1 Assessment of Staff:

ISSUES	RESP ORG	DATE CLOSED
1. Staff commitment to achieving improved performance	PANEL NRR/DRIL	12/14/93
2. Staff's safety consciousness	PANEL NRR/DRIL	12/14/93
3. Understanding of management's expectations/goals	PANEL NRR/DRIL	
4. Understanding of plant issues and corrective actions	PANEL NRR/DRIL	
5. Morale	PANEL NRR/DRIL	
6. Staff (union)/management relationship	NA	NA
7. Structure of the organization	PANEL NRR/DRIL	
8. Effect on the staff of any reorganization	PANEL NRR/DRIL	
9. Resources available to the staff	PANEL NRR/DRIL	
10. Qualifications and training of the staff	PANEL NRR/DRIL	
11. Staff's work environment	PANEL NRR/DRIL	
12. Staff's fitness for duty	NA	NA
13. Attentiveness to duty	PANEL NRR/DRIL	
14. Level of attention to detail	PANEL NRR/DRIL	

15. Adequacy of staffing	PANEL NRR/DRIL	
16. Off-hour plant staffing	PANEL NRR/DRIL	
17. Rotation schedule for shift workers	PANEL NRR/DRIL	
18. Staff overtime usage	PANEL NRR/DRIL	
19. Amount of contractor usage	PANEL NRR/DRIL	
20. Staff/contractor relationship	PANEL	01/ /94
21. Understanding of the allegation process and protection of workers who communicate with the NRC	RIV/DRS	01/ /94
22. Procedure usage/adherence	RIV/DRP	
23. Awareness of plant security	RIV/DRSS	09/01/93
24. Understanding of offsite emergency planning issues	NA	NA

Reference/Information

1. Favorable comments in IR 9343.
2. Favorable comments in IR 9343.
- 3.
4. SDG problems handled well per IR 9336.
- 5.
6. NA
7. Unitization addressed in IR 9341.
8. Unitization addressed in IR 9341.
- 9.
- 10.
- 11.
12. NA
- 13.
- 14.
15. Operations and maintenance addressed in IR 9341.
16. Off-hour engineering support to operations and maintenance addressed in IR 9341.
- 17.
- 18.
- 19.
20. Weaknesses in control of motor operated valve contractor addressed in IR 9345 (Draft). Addressed in 01/07/94 public meeting.
21. Addressed in IR 9352 (Draft).
22. Good procedure adherence noted in IRs 9330 and 9341.
23. STP Security force management initiatives and the results of an independent security force management assessment were discussed in a

management meeting with the licensee on September 1, 1993. No restart issues were identified as a result of this meeting or previous security inspection findings.

24. No restart issues have been identified in this area.

C.3.2 Assessment of Corporate Support:

Not Applicable for South Texas Project.

C.3.3 Operator Issues:

ISSUES	RESP ORG	DATE CLOSED
1. Licensed operator staffing meets requirements and licensee goals	RIV/DRS NRR/DRIL	12/16/93
2. Level of formality in the control room	RIV/DRS NRR/DRIL	
3. Adequacy of control room simulator training	RIV/DRS NRR/DRIL	11/02/93
4. Control room/plant operator awareness of equipment status	RIV/DRS NRR/DRIL	
5. Adequacy of plant operating procedures	RIV/DRS NRR/DRIL	
6. Procedure usage/adherence	RIV/DRS NRR/DRIL	
7. Log keeping practices	NA	NA

Reference/Information

1. IR 9341.
2. Favorable observations in IR 9330. Generally effective communications and command and control noted, with exceptions, in IR 9334. Mixed observations in IR 9336.
3. Results of 09/27/93 - 10/01/93 exams (IR 93-34)
4. Favorable observations in IR 9330. Good response to SFP level decrease noted in IR 9336. Operator weaknesses contributed to RCS overfill in IR 9336. Favorable observations in IR 9341.
- 5.
6. Some favorable observations in IR 9330, but equipment clearance order problems noted in IRs 9330 and 9336. Favorable observations in IR 9341.
7. No restart issues have been identified in this area.

C.4 ASSESSMENT OF PHYSICAL READINESS OF THE PLANT:

The physical condition of the plant is of principal importance not only when a shutdown is the result of a physical event or a hardware deficiency but for other reasons as well, especially following prolonged outages.

The causes of significant equipment problems should be identified and appropriate corrective actions taken. Operational testing should verify that each significant equipment problem has been resolved. As appropriate, the complete spectrum of preoperational and startup testing programs may need to be expanded to cover the more complex types of problems or the effects on plants that have been shut down for extended periods.

The licensee must be able to demonstrate that all needed safety equipment is operational before restart. Systems and equipment need to be available and aligned. Surveillance tests should also be up to date. The maintenance backlog should be managed at controllable levels and should be evaluated for impact on safe operation. Maintenance must also be capable of responding to equipment failures during startup and operation and should not be hindered by unresolved chronic problems with equipment readiness. Procedures should be adequate and up to date. The emergency preparedness function both onsite and offsite needs to be capable of protecting public health and safety.

ISSUES	RESP ORG	DATE CLOSED
1. Operability of technical specifications systems	RIV/DRP NRR/DRIL	
2. Operability of required secondary and support systems	RIV/DRP NRR/DRIL	
3. Results of prestartup testing	RIV/DRP	
4. Adequacy of system lineups	RIV/DRP NRR/DRIL	
5. Adequacy of surveillance tests/test program	RIV/DRP NRR/DRIL	
6. Significant hardware issues resolved (i.e., damaged equipment, equipment ageing, modifications)	PANEL	
7. Adequacy of the power ascension testing program	PANEL	
8. Adequacy of plant maintenance program effectiveness	RIV/DRS NRR/DRIL	
9. Maintenance backlog managed and impact on operation assessed	RIV/DRS	
10. Adequacy of plant housekeeping and equipment storage	RIV/DRP	
11. Adequacy of emergency preparedness accountability drills	RIV/DRSS	12/08/93

Reference/Information

- 1.
2. Fire protection system improvements noted in IR 9337. Deferred maintenance on non-certified systems addressed in IR 9353.
- 3.
- 4.
5. TDAFW issues addressed in IR 9338.
- 6.
- 7.
8. Favorable comments in IR 9353.
9. Progress noted in IR 9353.
10. Improvement noted in IRs 9336 and 9337. Material condition improvement noted in IR 9353.
11. IR 9347.

C.5 ASSESSMENT OF COMPLIANCE WITH REGULATORY REQUIREMENTS:

The plant and its prospective operation must not be in conflict with any applicable regulations or requirements of any document authorizing restart (such as license amendments, orders, or a CAL). Restart should not conflict with any ongoing matter such as an Atomic Safety and Licensing Board hearing.

ISSUES	RESP ORG	DATE CLOSED
1. Applicable license amendments have been issued	NRR	
2. Applicable exemptions have been granted	NA	NA
3. Applicable reliefs have been granted	NA	NA
4. Imposed Orders have been modified/rescinded	NA	NA
5. Confirmatory Action Letter conditions have been satisfied	PANEL	
6. Significant enforcement issues have been resolved	PANEL	
7. Allegations have been appropriately addressed	PANEL	
8. 10 CFR 2.206 Petitions have been appropriately addressed	NRR	07/08/93
9. ASLB hearings completed	NA	NA
10. Licensee issuance of JCO related to Generic Letter 93-04, Rod Control System Failure and Withdrawal of Rod Control Cluster Assemblies	RIV/DRP	11/01/93

Reference/Information

1. Auxiliary Feedwater testing amendment
2. NA
3. NA
4. NA
- 5.
- 6.
- 7.
8. Saporito Petition acknowledgement letter of 07/09/93
9. NA
10. JCO approved by plant managers 11/01/93.

C.6 COORDINATION WITH INTERESTED AGENCIES/PARTIES:

Coordination with other interested parties and agencies is important to ensure that concerns and requirements of these organizations are factored into the restart authorization.

ORGANIZATION	RESP ORG	DATE CLOSED
1. Federal Emergency Management Agency	RIV/NRR	
2. Environmental Protection Agency	NA	NA
3. Department of Justice	PANEL	
4. Department of Labor	PANEL	
5. Appropriate State and Local Officials	RIV	
6. Appropriate Public Interest Groups	RIV	
7. Local News Media	RIV	

Reference/Information

- 1.
2. NA
- 3.
- 4.
- 5.
- 6.
- 7.

D. PLANT SPECIFIC STARTUP ISSUES

The list of plant specific restart issues was developed from a review of the Diagnostic Evaluation Team Report, the Confirmatory Action Letter and supplements, the licensee's Operational Readiness Plan, routine and special NRC reports, the allegation process, and NRC staff actions assigned by the Executive Director for Operations following the Diagnostic Evaluation. NRC Inspection Report 50-498/499-9331 identified and assigned an Inspection Followup Item for each item related to issues which require resolution prior to the restart of either STP unit. This table will be updated periodically to reflect the status of inspection activities at STP.

The table following this page lists the plant-specific restart issues and their current status.

RESTART ISSUE	RELATED ITEMS	DATE CLOSED	
1	Turbine-driven Auxiliary Feedwater Pump Reliability and Testing Methodology	9331-07(9338-0) (9346-0), 08(9338-0) (9353-0), 09(9338-0) (9353-0), 10(9338-0) (9346-0), 43(9338-C), 50(9338-0), 71(9338-C) 9305-04(9338-C), 05(9338-0), 07(9338-C) Unit 1 LER 9307(9338-0) Unit 2 LER 9304(9338-0)	
2	Station Problem Report Process, Threshold, Licensee's Review of Existing Reports for Issues Affecting Operability and Safe Plant Operation	9331-06(9338-0), 18, 23, 25, 26, 27, 28, 67 9235-02 9224-01 9321-01(9333-C) 9322-02(9333-C) 9308-02, 04	
3	Service Request Backlog, Including Reduction Accomplished During the Current Outages and the Licensee's Review of Outstanding SRs for Issues Affecting Equipment Operability, Safe Plant Operation, and Operator Work-arounds	9331-02(9353-C), 03(9340-0) (9341-C) (9346-0) (9353-C), 07(9338-0) (9346-0), 08(9338-0) (9353-0), 09(9338-0) (9353-0), 29(9353-C), 31, 37(9353-0), 38(9353-0), 39(9353-0), 47(9353-0), 49(9353-0), 62(9353-0), 79(9353-0) (9346-0), 80(9353-C)	
4	The Postmaintenance Test Program, Including Corrective Actions in Response to Violations and Other Process Improvements and the Basis For the Licensee's Confidence That Equipment Removed From Service for Maintenance is Properly Restored to an Operable Status	9331-03(9340-0) (9341-C) (9346-0) (9353-C), 04(9337-0) (9346-0) (9353-0), 07(9338-0) (9346-0), 10(9338-0) (9346-0), 13(9339-0) (9346-0), 14(9339-C), 15(9346-0), 51, 63 (9346-C), 68(9339-C), 79(9353-0) (9346-0) 9226-03(9339-C) 9320-02(9339-C) 9305-01, 05, 07 Unit 1 LER 9204(9339-C), 9207(9339-C), 9214(9339-C), 9216(9339-C), 9305	

RESTART ISSUE	RELATED ITEMS	DATE CLOSED
5 The Outstanding Design Modifications, Temporary Modifications, and Other Engineering Backlog Items, Including the Licensee's Review of These For Issues Affecting Equipment Operability, Safe Plant Operation, and Operator Work-arounds	9331-02(9337-0) (9353-C), 04(9337-0) (9346-0), 08(9338-0) (9353-0), 12, 16, 18, 19, 20, 21, 30, 31, 40, 41, 42, 44, 45, 48, 52(9338-0), 64, 65(9340-0) (9341-C), 77, 81 9208-01 9306-07(9353-0) 9315-01 Unit 1 LER 9220, Unit 2 LER 9204	
6 Adequacy of Operations Staffing	9331-01(9340-0) (9341-C), 03(9340-0) (9341-C) (9346-0) (9353-C), 24(9340-C), 56(9340-0) (9341-C), 57(9340-0) (9341-0), 59(9340-0) (9341-C), 60(9340-C), 65(9340-0) (9341-C), 66(9340-0) (9341-C), 73(9340-0) (9341-C) 9116-02(9340-0) (9341-0) 9304-03(9340-C), 04(9340-C) 9311-04(9340-C) 9322-01(9340-C) Unit 2 LERs 9305(9340-C), 9312(9340-C)	12/16/93 9341
7 Adequacy of Fire Brigade Leader Training and Qualifications	9331-04(9337-0) (9346-0), 33(9337-C), 75(9337-0)	11/23/93 9337
8 Adequacy of Fire Protection Computers and Software, the Licensee's Success in Reducing the Number of Spurious Fire Protection System Alarms, and Other Fire Protection Hardware Problems	9331-02(9337-0) (9353-C), 04(9337-0) (9346-0), 17(9337-0), 22(9337-0), 58(9337-C), 75(9337-0) 9235-06(9337-0) 9309-01(9337-C)	

RESTART ISSUE		RELATED ITEMS	DATE CLOSED
9	Licensee Management's Effectiveness in Identifying, Pursuing, and Correcting Plant Problems	9331-04(9337-0)(9346-0), 05, 06(9338-0), 17(9338-0), 18, 22(9337-0), 23, 25, 32, 34, 35(9338-0), 37(9353-0), 46, 54, 55(9343-0), 56(9340-0) (9341-C), 61, 62(9353-0), 65(9340-0) (9341-C), 67, 69, 70(9338-C), 72(9338-C), 73(9340-0) (9341-C), 80(9353-C), 82(9343-C) 9321-01 9322-02 9224-01 9217-02, 04 9303-01 9308-02, 04 Unit 1 LER 9204	
10	NRC Review of the Effectiveness of the Licensee's SPEAKOUT Program	9331-78	
11	Standby Diesel Generator Reliability	9331-08(9338-0)(9353-0), 09(9338-0) (9353-0), 11, 12, 13, 16, 19, 28 9214-03 9221-03 9305-01 9315-03(9330-C) Unit 1 LER 9305	
12	Essential Chiller Reliability	9331-10(9338-0) (9346-0), 13, 20, 21, 44, 45, 74 9224-03	
13	Monitoring of the Licensee's System Certification Program	9331-07(9338-0), 53	
14	Adequacy of the Licensee's Resolution of the Reliability and Operability of the Feedwater Isolation Bypass Valves	9319-01 through 07(9335-C) 9324-01(9335-0) Unit 1 LER 9317(9335-C) Unit 1 LER 9320(9335-0) 9335-01	

RESTART ISSUE		RELATED ITEMS	DATE CLOSED
15	Tornado Damper Issues	9331-76(9342-C)	11/19/93 9342
16	Emergency Preparedness Accountability Issues	URI 498;499/9325-02(9347-C)	12/08/93 9347

Reference/Information

1. Resolved with exception of Mode 3 testing in IR 9338. DRP to observe testing.
2. IR 9354 (Draft) proposed closing this issue. Await approval of report and ORAT findings.
3. Progress noted in IR 9353. Will inspect backlog status in Mode 3.
4. Progress noted in IR 9339. Significant program improvement noted in IR 9346, but implementation weaknesses exist. Correction of weaknesses addressed in IR 9354 (Draft). Await ORAT findings.
5. Proposed as resolved in IR 9345 (Draft) and followup conducted in IR 9355 (Draft).
6. Progress noted in IR 9340. Operator administrative workload reductions noted in IRs 9346 and 9353. Closed in IR 9341 dated 12/16/93. Await ORAT findings.
7. Closed in IR 9337 dated 11/23/93.
8. Proposed as resolved in IR 9345 (Draft).
9. Favorable observations with respect to fire protection issues in IR 9337. Favorable comments with respect to TDAFW issues in IR 9338. Favorable observations with respect to operator staffing issues in IRs 9339 and 9341. Favorable observations with respect to tornado damper issues in IR 9342. Good response to refueling machine problems noted in IR 9335. Good response to SR backlog noted in IR 9353. Favorable overall findings in IR 9343. Favorable findings with respect to PMT noted in IR 9346.
10. Proposed as resolved in IR 9352 (Draft).
11. Good progress noted in IR 9344 (Draft). Followup 01/18/94.
12. Proposed as resolved in IR 9404 (Draft). Need confirmation of successful testing.
13. Favorable observations in IR 9336. Proposed as resolved in IR 9345 (Draft).
14. Significant progress noted in IR 9335. Followup 01/10/94.
15. Closed in IR 9342 dated 11/19/93
16. Closed in IR 9347 dated 12/08/93.

E. RESTART INSPECTIONS

	INSPECTION	RESP		SCHEDULE
		ORG	LEAD	
1	TDAFW PUMPS	DRP	MAS	10/18/93
2	SPR PROCESS, THRESHOLD, REVIEW RESULTS	DRS	TOM +RI	10/12/93 12/13/93
3	SERVICE REQUEST BACKLOG STATUS AND REVIEW, EFFECT ON EQUIPMENT OPERABILITY, SAFE OPERATION, OPERATOR WORK-AROUNDS	DRP	MAS LDG MFR	11/29/93 12/06/93 01/24/94 (Mode 3)
4	POSTMAINTENANCE TEST PROGRAM	DRS	TOM RBV	10/25/93 11/29/93
5	ENGINEERING BACKLOGS	DRS	TFW	11/15/93
6	OPERATIONS STAFFING	DRS/DRP	JLP JIT	11/01/93 11/29/93
7	FIRE BRIGADE LEADER QUALIFICATIONS	DRS	GLC	10/18/93
8	FIRE PROTECTION COMPUTERS	DRS	GLC	10/18/93
9	MANAGEMENT EFFECTIVENESS IN IDENTIFYING, PURSUING, AND CORRECTING PLANT PROBLEMS	DRP/DRS/DRSS		EACH INSPECTION
10	SPEAKOUT REVIEW	DRS/HQ	DAP	11/29/93
11	EDG ISSUES	DRS/NRR	TFW	11/08/93 12/13/93 01/11/93
12	ESSENTIAL CHILLER ISSUES	DRP/NRR	MAS	01/03/94
13	SYSTEM CERTIFICATION	DRP/DRIL SRI/ORAT		ONGOING
14	FEEDWATER ISOLATION BYPASS VALVES	DRS	DAP	11/15/93
15	TORNADO DAMPERS	DRP/NRR	MAS	11/01/93
16	EP ACCOUNTABILITY	DRSS	BXM	11/18/93
17	LICENSEE'S READINESS ASSESSMENT	RIV/NRR	PANEL	12/93
18	ORAT	DRIL	JBJ	12/06/93 01/12/94