



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30323

Report Nos.: 50-259/87-45, 50-260/87-45, and 50-296/87-45

Licensee: Tennessee Valley Authority  
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1101 Market Street  
Chattanooga, TN 37402-2901

Docket Nos.: 50-259, 50-260, and 50-296

License Nos.: DPR-33, DPR-52,  
and DPR-68

Facility Name: Browns Ferry 1, 2, and 3

Inspection Conducted: November 30 - December 4, 1987

Inspectors:

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Team Leader

7 March 1988  
Date Signed

S. A. Elrod  
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7 March 1988  
Date Signed

Team Members: G. Humphrey  
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D. Smith

Approved by:

S. A. Elrod  
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Division of TVA Projects

7 March 1988  
Date Signed

SUMMARY

Scope: This special inspection covered the Browns Ferry program for the layup and preservation of equipment.

Results: Three Unresolved Items were identified concerning layup and monitoring of the standby liquid control system, inadequacies in the layup procedure and its implementation, and Quality Assurance (QA) overview of the layup program.

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*E. Civera, Design Nuclear Engineering
- \*J. Daniel, Plant Operations Review Staff
- \*R. Erickson, Plant Operations Review Staff
- \*D. Gallien, Chemistry Technical Support
- \*T. Golston, Unit 3 Maintenance
- \*L. Hartley, Maintenance
- \*E. Hartwig, Project Management
- \*C. Madden, Compliance Licensing Engineer
- \*B. McKeon, Unit 2 Superintendent
- \*S. Rudge, Assistant to Site Director
- \*J. Savage, Compliance Licensing
- \*B. Thomison, Technical Support
- \*J. Thompson, Quality Assurance
- \*J. Webster, Shift Advisor

Other licensee employees contacted included construction craftsmen, technicians, and office personnel.

#### NRC Attendees

- \*E. Christnot
- \*S. Elrod
- \*G. Humphrey
- \*C. Patterson
- \*W. Ross
- \*D. Smith
- \*G. Walton
- \*J. York

\*Attended exit interview

### 2. Exit Interview

The inspection scope and findings were summarized on December 4, 1987, with those persons indicated by an asterisk in paragraph one above. The inspectors described the areas inspected and discussed in detail the report findings listed below. Proprietary information is not contained in this report. No dissenting comments were received by the licensee.

- (a) Unresolved Item\* (URI) 296/87-45-01, "Improper Layup and Monitoring of the Standby Liquid Control System."

\*An Unresolved Item is a matter about which more information is required to determine whether it is acceptable or may involve violation(s) or deviation(s).

(b) URI 296/87-45-02, "Layup Procedure and Implementation Inadequacies."

(c) URI 259, 296/87-45-03, "Quality Assurance (QA) Overview of the Layup Program".

3. Unresolved Items

Three Unresolved Items were identified during this inspection and are discussed in paragraph 6.

4. Layup and Preservation of Equipment (92050, 79701)

A layup and preservation team inspection was performed during the period November 30 - December 4, 1987, to review and assess the effectiveness of the licensee's program to preserve, during a period of inactivity, the physical condition and operational ability of components, systems, and selected structures of all three Browns Ferry units. The team was divided into two groups with one group emphasizing adequacy of the system layup according to industry standards and walking down systems to determine if layup and preservation were performed to site procedures. The second group selected fewer systems and concentrated on integration of preservation requirements into the preventive maintenance (PM) program along with vendor preservation requirements. A third area shared by both groups addressed the microbiologically induced corrosion (MIC) portion of the layup and preservation program. These areas of inspection review are described in paragraphs 5, 6, and 7, respectively.

5. Layup and Preservation of Equipment with Emphasis on Industry and Site Requirements

a. Background

Through discussions with cognizant licensee personnel, the inspectors reviewed the status of the three units since they had been shutdown. This period has existed since August 1984 for Unit 2 and the summer of 1985 for the other two units. Because of the uncertainty associated with the length of the shutdown periods for each unit, the licensee did not immediately implement a layup program. However, draft procedures for a dry layup program were prepared in October 1985.

As the result of an inspection in February 1986 (Inspection 86-07) the NRC expressed concern relating to the possible degradation of the reactor coolant pressure boundary during the extended outage. The licensee was reminded of NRC regulations [10 CFR 50.34(b)(6)(ii)] that require licensees to maintain managerial and administrative controls to assure that 10 CFR 50, Appendix B, Criterion XIII is met.

The inspectors were informed that final procedures for dry layup of each of the three units were prepared in early 1986. Subsequently,

in October 1986, layup engineers were designated for Units 1 and 3 and actions were taken to protect the Control Rod Drive Mechanisms and the steam side of the HPCI and RCIC Systems (High Pressure Coolant Injection and Reactor Core Isolation Cooling Systems).

In April 1987, the licensee reorganized the layup efforts for Units 1 and 3 and made the decision to maintain Unit 2 in wet condition in anticipation of a December 1988 unit startup. The new organization is headed by the Superintendent of Units 1 and 3 and is being directed by a Layup Project Manager and a Layup Coordinator with assistance from maintenance, electrical, operations, and chemistry personnel. The layup procedures were revised and the Layup Coordinator was made responsible for making these procedures workable.

b. Status of Layup Program for Units 1 and 3

Through a briefing by members of the Layup Program Organization and attendance of the weekly status meeting of this organization, the inspectors established the degree to which each component and system had been placed in order to provide an acceptable level of protection for the duration of the outage. Although the licensee had set a target date of December 1, 1987, for the completion of layup for each unit, the inspectors observed that these dates were not met.

Although procedures were established for the layup of each system, the Layup Coordinator was unable to conclude that all systems were in the desired condition. All systems except the tube side of each main condenser, the suppression pools, the reactor, and reactor cooling water system were being layed up dry. However, the licensee did not have complete assurance that this dry state would not be violated through seepage of water at interfaces with systems that contained water. During this inspection the licensee refilled the shell side of the Unit 1 main condenser and drained the tube side in an effort to identify condenser tube leaks that had prevented long-term drying of the shell side and hotwell. The inspection revealed several hundred leaking condenser tubes which had to be plugged. The inspectors were also informed that the number of plugged tubes in waterbox 1A may exceed the design limit for operational use.

A copy of the layup status report as of December 2, 1987, is provided as Appendix A to this report.

c. Review of Layup Procedures

The licensee's layup program was developed in a series of procedures that provided both general guidelines and procedural steps for implementing dry layup of fifteen systems. All of these procedures received approval from the Plant Onsite Review Committee (PORC) and the Plant Manager.

The inspectors reviewed procedure GOI 100-13.0, entitled, Guidelines for Plant Layup, which provides upper-tier guidance for scheduling, sequencing, and implementing layup of systems and components. It also provides the technical bases for the implementing procedures. In addition, this document provides references on which the layup program and philosophy were based as well as precautions and instructions specific to each system.

The inspectors reviewed the following implementing procedures used for achieving dry layup of systems in Unit 1.

- 1-GOI 100-13.1, Condensate/Feedwater
- 1-GOI 100-13.2, Main Steam
- 1-GOI 100-13.3, Feedwater Heater Shellside
- 1-GOI 100-13.4, Hotwell
- 1-GOI 100-13.5, Condenser Tube Cleaning
- 1-GOI 100-13.6, Generator/Turbine
- 1-GOI 100-13.8.a, High Pressure Coolant Injection - Water System
- 1-GOI 100-13.8.b, Reactor Core Isolation Cooling Water
- 1-GOI 100-13.8.c, Reactor Core Isolation Cooling Water - Steam Side
- 1-GOI 100-13.8.f, High Pressure Coolant Injection - Steam Side
- 1-GOI 100-13.15, Standby Liquid Control

On the basis of this review, the inspectors concluded that the licensee had adequately documented guidance for achieving dry layup of the specific systems.

d. Review of Licensee Layup Activities

The inspectors reviewed the actions that the licensee had taken in layup implementation of selected systems. This review involved a review of the layup packages maintained in the Control Room of Unit 1 by the Operations Department and a walkdown of three systems, i.e., condensate/feedwater, RCIC, and HPCI - both water and steam sides. In addition, parts of the following systems were also walked down: main steam, hotwell, and generator/turbine.

(1) Layup Packages

Each system had been placed in dry layup through the coordination of a responsible system engineer from the Maintenance Department, craft personnel from Maintenance and Instrument and Control Departments, a shift advisor in the Operations Department, and the Chemistry Unit. Coordination was controlled by the Layup Coordinator and Project Manager, both members of the plant Chemistry Unit.

The inspectors verified that implementation of system layup was being documented and the records were maintained in the Control

Room of each unit. These records included: check-off lists for the steps in each procedure, valve lineups, temporary modifications, maintenance request numbers, instrument layup checklists, and surveillance records. Some layup packages had been previously audited for completeness while others had not. The inspectors noted that temporary notations were attached to some layup packages. These notes were being used by the Layup Coordinator and System Engineers to denote steps in the procedure that required additional attention and the notes were not considered part of the documentation.

(2) System Walkdowns

The inspectors selected the Unit 1 Condensate/Feedwater, the HPCI, and the RCIC systems as candidates for walkdowns. These walkdowns were performed with the assistance of the Layup Coordinator and the cognizant system engineers while using the appropriate flow diagram drawings.

(a) Condensate/Feedwater System.

This system had been defined as the normal pathway of condensate and feedwater from the discharge of the three condensate pumps (isolation points at valves 2-509, 2-518, and 2-527) to feedwater isolation valves FCV 3-75, 3-76, and 3-77 (downstream of the startup recirculation line to the main condenser). The layup procedure also identified isolation points associated with interfaces of the condensate/feedwater lines with systems that would remain filled; e.g., condensate storage tanks, and gland seal water. Purging of this system was being implemented with three dehumidifier units located at chemical cleaning connections on the following lines:

- Condensate pump discharge header
- Condensate booster pump discharge header
- Reactor feed pump discharge piping between these pumps and the three trains of feedwater heaters.

The purge air was being exhausted through High Efficiency Particulate (HEPA) filters located in other chemical cleaning openings on the suction headers of the condensate booster pumps and the reactor feedwater pumps.

Because of multiple flow paths in portions of the condensate/feedwater System (e.g., pumps, feedwater heaters, and air ejectors) the layup team continued to analyze the effectiveness of the purge paths accomplished with the configuration described above. Secondary isolation points had been selected to redirect the purge paths to ensure that each line was satisfactorily

dehumidified (i.e., relative humidity of less than 30%) prior to considering the systems to be completely layed up.

A third exhaust path would normally be through the recirculation line to the condenser. However, during this inspection this pathway was isolated due to the filling of the condenser with water in an effort to identify condenser tube leaks. At the conclusion of this project the licensee plans to drain the condenser again, and maintain it in a dry condition by means of driers in the bottom of the hotwell. The upper portion of the hotwell was open to air because the low-pressure turbines had been disassembled.

(b) High Pressure Coolant Injection System (HPCI)

The HPCI System had been layed up in a dry and dehumidified condition on both the water and steam sides as follows.

Water side - this portion of the HPCI System included the following stainless steel lines:

- Suction for the HPCI pump from the condensate supply system (14-inch diameter)
- Suction for the HPCI pump from the suppression pool (16-inch diameter)
- Discharge from the HPCI and Booster Pumps to feedwater piping (14-inch diameter)
- Cooling water for the HPCI steam driven pump's gland seals (1.25-inch to 4-inch diameter)
- Booster pump miniflow line (4-inch diameter)

A dehumidifier had been installed in a 10-inch check valve 1-73-566 (line common to HPCI and RCIC) after the bonnet and flapper of this valve had been removed. The flow path was configured to exhaust the purge air through a HEPA filter that had been installed in a disassembled suppression pool suction check valve 1-73-517. The flow path had been isolated from the partially filled suppression pool at valve FCV 73-26, a few feet downstream from the exhaust point. Likewise, the HPCI system had been isolated from the condensate supply system at valve FCV 73-40, leaving a short run of this 14-inch pipe as a dead leg. A one-inch line from the gland condensate return line (2-inch diameter) had been left open so that part of the purging air was being discharged into the clean

radwaste system. The Layup Coordinator and cognizant system engineer were continuing to assess the effectiveness of the flow paths.

Steam-Side - Dry layup had also been provided to the large diameter (8 to 20-inch) steam and exhaust lines associated with the steam-drive HPCI pump and the small (1 to 2-inch) auxiliary lines that discharge into the gland seal condenser. This portion of the HPCI System had been isolated from the main steam lines (at valve FCV 73-3), from the startup steam supply (at valve 73-587), from the suppression pool (at valve FCV 73-23) as well as at other points associated with small drain lines. This system was being purged with air from a dehumidifier connected to the HPCI turbine exhaust rupture disk. The flow path had been designed to allow the purging air to exhaust through a HEPA filter installed in disassembled check valve 73-586, immediately upstream from isolation valve 73-587. This configuration resulted in portions of the 20-inch turbine exhaust line and the 10-inch steam supply line being without exhaust points and, consequently, potential dead legs in the flow pattern. This situation was being analyzed by the Layup Coordinator and cognizant System Engineers.

(c) Reactor Core Injection Cooling System (RCIC)

The RCIC system had also been layed up dry as two separate sub-systems; i.e., water and steam.

Water Side - This sub-system was being purged with dry air by means of the same dehumidifier used to purge the HPCI water side. The flow path had been designed to achieve flow of air through the larger piping (4 to 6-inch diameter) that provides feed to the RCIC pump (i.e., from the suppression pool and from the condensate supply system) as well as through the small piping (1 to 2-inch diameter) associated with the RCIC pump cooling system. The air flow exhausted through a HEPA filter attached to suppression pool suction check valve 1-71-508 immediately upstream from the suppression pool isolation point. The Layup Coordinator and cognizant system engineer were continuing to analyze the rate of flow of air through the small-diameter pipe and those runs of pipe that terminated at isolation points. Also, these personnel were monitoring potential leakage of water from the suppression pool through isolation valve FCV 71-17.

Steam Side - This sub-system consisted mainly of pipe of diameter less than four inches that provides steam and

drain paths for the steam-driven turbine of the RCIC pump. In addition the licensee was maintaining the 8 to 10-inch turbine exhaust lines (to the suppression pool) in dry condition. A dehumidifier had been connected to an 8-inch spool piece of the turbine exhaust rupture disk and a HEPA filter for exhausting the air had been connected to check valve 71-564 in the pre-startup steam line. In this configuration the 10-inch turbine exhaust line was dead-headed by isolation from the suppression pool and the main steam supply was also dead-headed at isolation valve FCV 71-3 off of the main steam line. Most of the multiple pathways of the small diameter pipe flowed through the RCIC pump turbine barometric condenser. Consequently, the Layup Coordinator and cognizant system engineer were analyzing the effectiveness of the purging configuration.

e. Conclusions

The inspectors reached the following conclusions:

- After Units 1 and 3 had been shutdown for more than two years, a systematic, acceptable layup program had been developed, but was not fully implemented.
- All of the principal systems had been drained and were being dried. However, the extent to which all parts of each system was being continually purged with dehumidified air had not been established by the layup team.
- An acceptable program for monitoring the relative humidity of all pipe environments had not been finalized.
- An acceptable program had been developed for documenting actions taken during layup.
- Continued management attention is necessary to expedite completion of layup of Unit 3 and to provide support to the Layup Coordinator in the resolution of purging configurations and subsequent revision of procedures if needed.

6. Layup and Preservation of Equipment Emphasizing Vendor Requirements and Preventive Maintenance

Equipment preventive maintenance and storage procedures associated with the lay-up and storage program at the Browns Ferry Nuclear Plant, Units 1, 2, and 3, were reviewed by the inspectors to determine the adequacy and maintenance of this program. The licensee the inspectors that the physical layup had not been completed for many of the systems as of December 1, 1987. The inspector informed the licensee that considering the extended time the units have been shut down, the layup program might be satisfactory but implementation appeared to be ineffective. A copy of

the layup status report as of December 2, 1987 is provided as Appendix A to this report.

The results of the inspectors' review of the procedures and plant equipment to evaluate the layup program and the QA evaluation of this program are described herein. The only safety-related system that had been completed for dry layup was the Standby Liquid Control (SLC) system and, for that reason, it was selected for inspection.

The Unit 3 SLC system lay-up requirement was reviewed by the inspectors. The upper tier lay-up procedure, GOI-100-13.0, Rev. 1, "Guidelines For Plant Layup", Section 5.1.9, and implementing procedure GOI-100.13.15 Rev. 1, "Draining SLC Tank Boron Solution for Layup" require that the SLC system be layed up in the dry state.

At the request of the inspector, the licensee opened valves 63-505 and 63-537 which are low point drains for the SLC. Approximately 3 gallons of water drained from the 63-505 valve and a small amount drained from the 63-537 valve. Also the SLC Test Tank was found to be approximately 1/3 full of water (100 gallons). The implementing procedure, GOI-100-13.15, omitted the requirement to initially drain the SLC Test Tank. However, procedure GOI-100.0 requires the SLC system be layed up dry. The Valve, 3-63-532, on the water supply to this tank was identified by the licensee on January 20, 1987, to be leaking. A tag, attached to the valve, stated that the valve is leaking through and filling the test tank to the overflow. However, the licensee had proceeded to lay the system up dry, even though the leaking valve existed in the system. Further review revealed that the procedure did not require the system to be monitored for dryness (such as opening drain valves) during layup after the initial implementation of the procedure.

In discussion with the licensee's engineering personnel, it was identified that an engineering evaluation was performed that supported the plan to lay the instrument lines up in the wetted state. The licensee advised that the normal operating status for these lines are full and stagnant and that draining of the lines would cause unwarranted efforts and allow for the potential of contamination in the system during unit restart. The Engineer advised that the root valves on the instrument lines must be closed prior to draining the system to prevent an air-to-water interface. However, a review of the implementing procedure, GOI-100.15, revealed that the procedure failed to require the closing of the root valves. These issues are identified as an Unresolved Item (URI 296/87-45-01), "Improper Layup and Monitoring of SLC" pending review of other systems.

The GOI-100-13.0 Rev. 01 and implementing procedures were reviewed to determine the requirement for reporting deficiencies associated with the layup surveillance of major rotating equipment. It was noted that motor and pump rotations were not always being performed in the time frames required by the procedure. Examples identified in this area were: (1) 3B Motor Generator Set (3 MTR 068, 0000B), (2) 3A Motor Generator Set (3MTR 068, 0000A), (3) 3A Raw Cooling Water Pump (3MTR 024,00007), and (4) 1A

Component Cooling Water Pump (1MTR 027, 0010). Further review of the program revealed that surveillance of some equipment could not be performed per the procedure. An example was that the 1A Reactor Recirculation Pump could not be rotated. It was further noted that no procedural requirement existed, such as deficiency reports, requiring disposition by upper management for surveillances that are overdue, inadequate procedures, or deficiencies found during the performance of surveillances. This item is identified as unresolved item (URI 296/87-45-02), "Layup Procedure and Implementation Inadequacies".

The inspectors requested the results of any QA or QC efforts for evaluating the effectiveness of the layup and preservation program. The licensee stated that only one surveillance had been performed in this area on May 14, 1987. The licensee could not produce a schedule for the next surveillance in this area but stated that some additional surveillances would be performed and this will be identified as unresolved item (URI 259, 296/87-45-03), "QA overview of Layup Program".

#### 7. Microbiological Corrosion Control Program

A meeting was held with the licensee to brief the NRC/OSP staff on the status of the MIC Program at the Browns Ferry site. The programmatic efforts being performed were the development of procedures for monitoring, control, and repair of MIC damage, and in a parallel effort, assist in the development of TVA upper-tier corporate plans for addressing MIC. Licensee management has requested the first draft for the site specific MIC plan to be available in 4 weeks.

With regard to hardware, the main efforts were the assessment of MIC damage that had already occurred. Radiographic examination of approximately 25% of the welds in the stainless steel EECW revealed MIC was present. Of 95 welds examined, 3 welds were positively identified as having had MIC attack and 6 welds as possibly having had MIC attack. TVA Browns Ferry had not made a decision on the need to expand their examinations of the EECW at this time.

The carbon steel fire protection system was ultrasonically inspected for wall thickness in limited areas, but nothing of significance was found. This system has developed leaks in the past which were attributed to MIC. TVA is planning to remove sections of the fire water system for evaluation. The basic approach for minimizing MIC attack in the carbon steel service water systems (such as fire water) is to be chlorination.

In addition, TVA is to analyze water samples from the following systems to determine the types of bacteria present: torus, RHR Service, demineralized water, CCW, EECW, RBCCW, and river water.

The only conclusions that can be made at this time is that TVA and the individual sites, such as Browns Ferry are in the developmental stages of a program, and are just starting to assess the extent of MIC damage and to develop procedures for addressing the problem.

Appendix A - Browns Ferry Nuclear Plant Layup Status

Unit 1

<u>System</u>	<u>GOI Number</u>	<u>Status</u>	<u>Comment</u>
Feedwater Shell Side	100-13.3	Partial Layup configuration. Main purge path through heater A (B,C) 2, A (B, C) 3 A (B,C) 4, A (B,C) 5 and heater drain coolers to condenser in layup.	Flow path under layup configuration. Unable to verify flow and relative humidity. Drain valves tested 10/07/87.
Feedwater Condensate	100-13.1	In Layup configuration.	"
Condenser Hotwell	100-13.4	To be flooded up for tube repair.	Dehumidifier and blowers disconnected.
Off Gas Glycol	100-13.7	Procedure completed.	Need to revise procedure to setup glycol cooler operation as PM item.
Torus		To stay wet.	All cleaning complete, coating repair in progress.
Equipment Rotation	100-13.9	In place.	No comment.
Motor Heater Verification	100-13-.3	In place.	No comment.
Main Turbine	100-13.6	In progress.	Heaters on high pressure turbine. Open on low pressure turbine valve inspection complete.
Main Generator	100-13.6	Working.	Dehumidifier setup complete, unit keeps tripping. Need to revise procedure to indicate layup with dehumidifier.
Feedwater Turbines	100-13.12C	Complete.	No comment.

Condenser Tube Clean- ing	100-13.5	Complete.	No comments.
Off Gas Charcoal Beds	100-13.7.A	In Layup.	Need to revise procedure to incorporate ITC's and setup periodic checks as PM items.
IIX Cleaning	100-13.10	Started.	Cleaning being performed in accordance with plant PM program.
CRD Layup/ RWCU	100-13.11A	Complete.	No comments.
HPCI Water Side	100-13.8.A	In layup configuration	Purge in progress.
RCIC Water Side	100-13.8.B	"	"
HPCI Steam Side	100-13.8.F	"	"
RCIC Steam Side	100-13.8.C	"	"
SLC	100-13.15	In layup.	No comments.
D.C. Motors	100-13.14	In place.	No comments.
Electrical meggering			An electrical section position paper has not been written for all three units. This position paper endorses existing EMIs.

Unit 3

<u>System</u>	<u>GOI Number</u>	<u>Status</u>	<u>Comment</u>
CRD Layup RWCU	100.13.11A	In layup.	No comments.
Feedwater Shell Side	100-13.3	Main Purge path through heater A(B,C)2,A(B,C)3 A(B,C)4,A(B,C)5	System being purged. Unable to verify flow and relative humidity. Drain

		and heater drain coolers to condenser in layup configuration.	valves tested 9/18/87
Feedwater Condensate	100-13.1	On hold for procedure revision.	All work complete. Only lack dehumidifier operation. Procedure revision to SPS. Will alter valve lineups to allow humidity verifications.
Hotwell	100-13.4	On hold for procedure revision of 100-13.1 above.	Tube repair complete, covers back on.
Off Gas Glycol	100-13.7	Need procedure revised.	Need to incorporate shift advisor comments.
Equipment Rotation	100-13.9	In place.	No comments.
Motor Heater Verification	100-13.13	Need procedure	Pulled from PORC 10/13/87. Procedure being changed to EMI 125.
Main Turbine	100-13.6.B	Not scheduled to be complete until 1988.	No comments.
F. W. Turbines	100-13.12.1	Field work complete	Oil in storage tanks being cleaned.
Condenser Tube Cleaning		Not scheduled until after 1st of year.	To follow CCW tunnel work.
Main Generator	100-13.6.B	On hold.	To follow Unit 2.
Off Gas Charcoal Beds	100-13.7.A	PORC approval 10/20/87.	Implementation to follow Unit 2.
IIX Cleaning	100-13.10	In place.	Being performed in accordance with plant PM program.
HPCI Water Side	100-13.B.A	In layup configuration.	Purge in progress.
RCIC Water Side	100-13.8.B	"	Unable to detect flow.

IIPCI Steam Side	100-13.8.G	Scoping in progress.	PORC approval 11/25/87.
RCIC Steam Side	100-13.8.E	"	"
SLC	100-13.15	In Layup	No comments
D.C. Motors	100-13.14	Scoping in progress.	PORC approval 10/13/87.
Electrical meggering See Unit 1 comments.			
Torus		In wet layup.	Cleaning to follow Unit 1.

Unit 2

<u>System</u>	<u>GOI Number</u>	<u>Status</u>	<u>Comment</u>
Main Turbine	100-13.6.A	In layup.	No comment.
Off Gas Glycol	100-13.7	On hold.	Need to incorporate shift advisor comments.
Off Gas Charcoal Beds	100-13.7.A	On hold for DNE stack Inspection.	PORC approval 10/20/87.
Feedwater Shell Side	100-13.3	Need procedure revised	Shift advisors/technical services revising procedure.
SLC			To be left filled with demin water to support restart testing.
IIPCI Water Side	100-13.8.A	On hold for RTP.	PORC approved 11/10/87.
RCIC Water Side	100-13.8.B	"	PORC approved 11/13/87.
IIPCI Steam Side	100-13.8.G	"	PORC walk-on 11/25/87.
RCIC Steam Side	100-13.8.D	"	Need procedure revision.

Equipment Rotation Motor Heater Verification	100-13.9 100-13.13	In place. Need procedure.	No comments. Pulled from PORC 10/13/87. Procedure being changed to EMI 125.
Main Generator	100-13.6.A	On hold.	To follow Unit 1.
IIX Cleaning	100-13.10	In place.	Being performed in accordance with plant procedures.
Feedwater Condensate		In long cycle layup.	No comments.
FW Turbine	100-13.12-H	Field work complete.	Oil in storage tanks being cleaned.
D. C. Motors	100-13.14	Scoping in progress.	PORC approval 10/13/87.
Cond. Tube Cleaning		Complete.	No comments.
Electrical Meggering			See comments for Unit 1.
Torus		To stay in wet layup.	To be cleaned after Unit 3.