



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

March 17, 2005

Tennessee Valley Authority
ATTN: Mr. K. W. Singer
Chief Nuclear Officer and
Executive Vice President
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

SUBJECT: WATTS BAR: NRC PROBLEM IDENTIFICATION AND RESOLUTION
INSPECTION REPORT NO. 05000390/2005006 AND 05000391/2005006

Dear Mr. Singer:

On February 18, 2005, the US Nuclear Regulatory Commission (NRC) completed an inspection at your Watts Bar Nuclear Plant. The enclosed inspection report documents the inspection results which were discussed on February 18, 2005, with Mr. J. Laughlin and other members of your staff.

The inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and with the conditions of your operating license. Within these areas the inspection involved examination of selected procedures and representative records, observations of activities, and interviews with personnel.

On the basis of the sample selected for review, the team concluded that problems were generally being properly identified, evaluated, and corrected. The NRC's overall assessment is that the Corrective Action Program is working well. NRC identified a few isolated instances of less than optimum performance but none were of more than minor safety significance.

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

Sincerely,

/RA/

Stephen J. Cahill, Chief
Reactor Projects Branch 6
Division of Reactor Projects

Docket Nos. 50-390, 50-391
License No. NPF-90 and Construction
Permit No. CPPR-92

Enclosure: NRC Inspection Report 05000390/2005006, 05000391/2005006
w/Attachment: Supplemental Information

cc w/encl: (See page 3)

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos: 50-390, 50-391

License Nos: NPF-90 and Construction Permit CPPR-92

Report No: 05000390/2005006, 05000391/2005006

Licensee: Tennessee Valley Authority (TVA)

Facility: Watts Bar Nuclear Plant, Units 1 and 2

Location: 1260 Nuclear Plant Road
Spring City TN 37381

Dates: January 31 through February 18, 2005

Inspectors: C. Julian, Team Leader
J. Bartley, Senior Resident Inspector
R. Carrion, Project Engineer
J. Fuller, Reactor Inspector
E. Michel, Reactor Inspector Trainee
M. Pribish, Reactor Inspector Trainee

Approved by: Stephen J. Cahill, Chief
Reactor Projects Branch 6
Division of Reactor Projects

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SUMMARY OF FINDINGS

IR 05000390/2005006, 05000391/2005006, 01/31/2005 - 02/18/2005, Watts Bar, Units 1 and 2; Biennial Inspection of Problem Identification and Resolution.

The inspection was conducted by a senior resident inspector, a Region II reactor inspector, a Region II project engineer, and two Region II reactor inspector trainees. No findings were identified during this inspection.

A. Identification and Resolution of Problems

The team determined that the licensee was identifying plant deficiencies at an appropriately low level and effectively entering them into their corrective action program. The team made several observations on the licensee's new eCAP computer system that the licensee is assessing. Some aspects of using it were cumbersome and it limited access to all licensee staff members and the ability to initiate anonymous concerns. The team also determined that the licensee was prioritizing and evaluating issues properly. The team identified several examples where corrective actions did not appear appropriate or were not completely carried out. The team concluded, however, that several of these were documentation problems. Overall, the licensee was generally providing effective corrective actions.

On the basis of interviews conducted during this inspection, workers at the site felt free to put safety concerns into the corrective action program. The inspectors concluded that the employee Concerns Resolution program was functioning as intended.

B. Licensee-Identified Findings

None.

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Report Details

4. OTHER ACTIVITIES (OA)

4OA2 Identification and Resolution of Problems

a. **Effectiveness of Problem Identification**

(1) Inspection Scope

The team reviewed items selected across the seven cornerstones of safety to determine if problems were being properly identified, characterized, and entered into the corrective action program for evaluation and resolution. Specifically, the team reviewed 266 problem evaluation reports (PERs) from a total of 5817 that had been issued during the inspection review period of May 1, 2003, to December 31, 2004. This review period was chosen to address PERs since the last biennial PI&R inspection in April 2003. The team examined PERs and work orders (WOs) associated with the Auxiliary Feedwater System (AFW), the Essential Raw Cooling Water System (ERCW), the High Pressure Fire Protection System (HPFP), The Standby Diesel Generators, the Radiation Monitoring System, the 480V Shutdown Power System, and the Main Control Room, Shutdown Board Room, and 480V Board Room Air Conditioning Systems. The team reviewed PERs associated with radiological protection, security, and emergency preparedness events, problems, and deficiencies. The team reviewed operating experience resolution documents, and Employee Concerns Resolution activities. The team also reviewed licensee corrective action trend reports, PER effectiveness reviews, as well as Nuclear Assurance department audits and surveillances from the review period. The team evaluated these items to determine the licensee's threshold for identifying problems.

The team conducted system walkdowns to verify that observed problems were being properly identified. All members of the team also attended the licensee's various Management Review Committee meetings to observe how site management implemented this initial phase of the corrective action program.

(2) Assessment

The team determined that the licensee was effective at identifying problems at an appropriately low level and entering them into the corrective action program. The team observed that a broad spectrum of issues were entered in the system at a low threshold. Also, during this inspection, there were no instances identified where plant deficiencies did not result in the initiation of a PER.

The inspectors observed that the new "eCAP" computerized corrective action system is cumbersome for general users and the ability to initiate a PER was not readily available to a small portion of plant staff due to the lack of computer access, passwords, and training on operating the system. Additionally, the inspectors identified that there was no process for initiating an anonymous PER. Although a paper PER initiation form can be printed, there are no paper forms readily available and no locations or drop boxes to

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deposit a completed form. The licensee was assessing these observations as part of their eCAP implementation.

b. Prioritization and Evaluation of Issues

(1) Inspection Scope

The team reviewed Procedure SPP-3.1, Corrective Action Program, Revision 7, Business Practice document BP 250, Corrective Action Program Handbook, Revision 7, and various other supporting documents to determine the various licensee requirements for prioritizing and evaluating issues. The team then reviewed selected PERs to ensure that PER level classifications, operability determinations, reportability determinations, degraded and non-conforming condition determinations, cause evaluations, and selection of proper corrective actions were consistent with the significance of the problem described. The team reviewed a sample of PERs as described in paragraph a(1) above. The team also reviewed all the PERs associated with NRC findings, non-cited violations of regulatory requirements, and Licensee Event Reports issued during the selected review period. Inspectors attended Management Review Committee (MRC) meetings to assess the implementation of SPP-3.1 for evaluating and prioritizing new PERs. Specific items reviewed are listed in the attachment.

(2) Assessment

The team determined that PER level classifications were consistent with established procedures and that licensee audits generally confirmed that conclusion. The team further determined that operability, reportability, degraded or non-conforming condition determinations and cause evaluations were also consistent with SPP-3.1. The team observed that industry operating experience was being incorporated by the initiation of PERs on potentially generic problems.

At the MRC meeting of February 2, NRC observed that there were several PERs designated as “bring backs” and “reroutes” which postponed MRC action on the PERs. The inspectors expressed concern that these delayed resolutions might create a backlog of PERs, delay completion of MRC review, and be indicative of incomplete preparation by MRC members. The licensee initiated PER 76643 to address this matter and discussed it extensively in subsequent MRC meetings.

c. Effectiveness of Corrective Actions

(1) Inspection Scope

The team reviewed the same selected sample of PERs to verify that the specified corrective actions were effective in fixing the problems described. The team also reviewed documented results of MRC effectiveness reviews for completed PERs and observed an MRC effectiveness review meeting. Specific items reviewed are listed in the attachment.

(2) Assessment

Based on a review of numerous corrective action plans and their implementation, the team found, for the most part, that the licensee's corrective actions were effective. Effectiveness reviews and audits were generally of good depth and correctly identified issues similar to those raised during previous NRC inspections. However, the team did identify several corrective action deficiencies of a minor nature.

The new eCAP system has problems with filing attachments to PERs. This causes the system not to be able to retrieve attachments and thus lose prompt access to documentation of corrective actions. The problem has been known since 8/12/2004 (PER 66958) and is scheduled for completion 3/31/2005. One attempt was made on 2/3/05 to fix the problem but was not successful. This deficiency can cause licensee staff to lose confidence in the system and not provide attachments to PERs. Security initiated PER 76175 regarding their halting use of attachments to PERs. The inspectors expressed concern that others in the plant may be similarly limiting their use of attachments due to this problem.

NRC observed several examples of corrective actions that do not appear appropriate or had not been completely carried out. Several of the examples, as well as others not discussed below, were determined to be problems with the documentation of the corrective actions:

- PER 8592 concerned the loss of CCS and subsequent loss of RHR cooling during the performance of a blackout test. One could not tell from this PER that all the corrective actions were completed. Corrective action (CA) 1 implied that in the future the licensee will establish a requirement to assign a Blackout Test Director. But Preoutage Milestone 61 which is referenced uses generic words which don't clearly require a blackout Test Director. CA 4 & CA 7 stated that four procedures 0-SI-82-3, 4, 5, & 6 would be designated as Complex Infrequently Performed Tests and Evolutions (CIPTTE). However, the licensee later concluded that only two of these procedures (3 & 4) needed to be designated as CIPTTE but didn't document this conclusion in the PER. CA 4 also stated that seven procedures will be designated CIPTTE but only identified four procedures. This PER was associated with NCV 390/03-04-03.
- PER 9505 concerned water found in the oil of the TDAFW during testing. The cause was thought to be water entering the oil due to excessive leakage while adjusting packing. The CA did not address making changes to maintenance procedures to prevent this from recurring. However, NRC learned that the licensee has revised the procedure for replacing the TDAFW packing to prevent recurrence of this problem but that CA was not addressed in the PER.
- PER 03-020146 concerned the 11/17/03 NRC identification that the automatic start of the motor driven fire pumps had been defeated for an extended time period due to problems with pressure control valve 0-PCV-26-18. This was associated with NCV 390/03-05-01. The PER was closed with no substantive

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corrective actions, only “FP tech staff to review event and ensure knowledge of event is understood.” It did not reference separate actions taken to fix the pressure control valve. Subsequently, this was recognized by the licensee and PER 34398 was initiated on 4/21/04 for the same issue which did contain corrective actions to revise the Fire Protection Report to cause personnel to enter the action for the appropriate Fire Protection Operating Requirements anytime the fire pump auto start logic is defeated.

- PER 73215 concerned the receipt inspection of replacement tubesheets for Main Control Room chiller B. The tubesheet was shipped in a tool box, and the licensee’s receipt department did not open the tool box to conduct the initial receipt inspection. The tool box was later opened and the appropriate receipt inspection completed. MRC required an apparent cause analysis be completed, but PER 73215 did not document the apparent cause. In response to NRC comments, PER 76890 was initiated 2/17/2005 to include an apparent cause.
- PER 14606 (EMPAC # 03-014458) stated that seven disconnect switches in panel 1-R-72 for system 26 Fire Protection were mislabeled. The unit ID should begin with zero instead of one. The immediate corrective action states, “SUP: Prepared labeling requests for 0-FSV-26-215, 191,143,187,147,175,179.” However when inspectors along with the FP system engineer examined the switches, they observed that the labels had not been corrected. Also, when the inspectors inquired of the plant labeling staff if this was an outstanding labeling request, they were told there was no such outstanding labeling request in their process. The licensee wrote PER 76406 to address this matter.
- PER 7933 stated that Security failed to complete NRC performance indicators for the month of May 2003 due to the absence of the person who normally performs that work. Action 7933-002 says, “A scheduling calendar has been established to inform Security Management of upcoming actions and/or events, with established due dates to ensure completeness during the absence of the responsible parties.” The PER says the action was completed 10/13/2003, but when the inspectors inquired they were told that the calendar no longer exists. NRC learned that Security initiated another PER 76974 dealing with the discontinued calendar and intends to reinstate the calendar.

d. **Assessment of Safety-Conscious Work Environment**

(1) Inspection Scope

The team reviewed numerous audits, assessments, PERs, WOs, and other corrective action documents and held discussions with numerous personnel at various levels in the organization to assess if a work environment existed that was conducive to the identification of nuclear safety issues. The team also examined the licensee’s Employee Concerns Resolution program records and discussed the program with the implementer to determine if issues affecting nuclear safety were being appropriately addressed.

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(2) Assessment

The team determined that workers at the site felt free to raise safety concerns. Personnel stated that they do not hesitate to raise nuclear safety issues to their management without fear of retaliation by their management. The wide spectrum of PER-documented issues supported this conclusion. The team had no indication during this inspection of individuals being inhibited from identifying problems using the corrective action process.

4OA6 Management Meetings

The team presented the inspection results to Mr. J. Laughlin and other members of licensee management at the conclusion of the inspection on February 18, 2005. The licensee acknowledged the findings presented.

The team asked the licensee whether any of the material examined during the inspection should be considered proprietary. No proprietary information was identified.

ATTACHMENT: SUPPLEMENTAL INFORMATION

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SUPPLEMENTAL INFORMATION
PARTIAL LIST OF PERSONS CONTACTED

Licensee personnel

J. Bushnell, Licensing Engineer
H. Champagne, Radiation Protection Manager
M. DeRoche, Site Quality Manager
J. Hinman, Site Support Manager
A. Hinson, Maintenance and Mods Manager
W. Justice, Site Engineering Manager
G. Laughlin, Plant Manager
R. McCollom, Maintenance Support Manager
J. McCullum, Site Security Manager
P. Pace, Licensing and Industry Affairs Manager
P. Salkeld, Site Support/Performance & Analysis
G. Vickery, Chemistry & Environmental Manager
T. Wallace, Operations Manager
G. Yelliot, Concerns Resolution

NRC personnel

S. Cahill, Branch Chief, Division of Reactor Projects
J. Reece, Resident Inspector, Watts Bar

ITEMS OPENED AND CLOSED

None

PARTIAL LIST OF DOCUMENTS REVIEWEDProcedures

SPP-1.6	TVAN Self-Assessment Program, Revision 10
SPP-3.1	Corrective Action Program, Revision 7
SPP-6.0	Maintenance and Modification, Revision 2
SPP-6.1	Work Order Process Initiation, Revision 3
SPP-6.6	Maintenance Rule Performance Indicator Monitoring, Trending, and Reporting - 10CFR 50.65, Revision 8
SPP-7.0	Work Management, Revision 1
SPP-8.1	Conduct of Testing
SPP 9.7	Corrosion Control Program
BP 250	Corrective Action Program Handbook, Revision 7
TI-119	Maintenance Rule Performance Indicators Monitoring and Trending, Revision 23
MMDP-1	Maintenance Management System, Revision 7
NEDP-12	System and Component Health, Equipment Failure Trending, Revision 4
WBN PM 1-ADPL-082-A/F-A	Inspection and Cleaning of Diesel Generator 1A-A Panels
WBN PM 1-GEN-082-0001A-A	Diesel Generator 1A-A Voltage Regulator Range Potentiometer (R4), Stability Pot (R5), and MOP Variable Resistor Verification
WBN PM 1256f	Inspection of Diesel Generator Jacket Water Cooler
WBN PM 8955V	Minimum Inspection and Testing of Diesel Generators
WBN PM 0369f	Lube Oil Sample and Coupling Inspection of TD Aux Feedwater Pump 1A-S
MI-0.16	Maintenance Guidelines for Belt Driven Equipment

Non-Cited Violations (NCV) Associated PERs

03-010602	NCV 390/03-03-01 Inadequate PMT for CCS Thermal barrier Booster Pump
04-000064	NCV 390/04-02-03 LER 390/2004-001 Failure to follow 1-SI-99-10-B caused reactor trip
64289	Finding 390/04-07-03 Panel cover came loose causing a security system failure
03-010788	NCV 390/03-03-01 Inadequate PMT for CCS Thermal Barrier Booster Pump
03-010882	
03-011113	NCV 390/03-03 LER 390/2003-002 Reactor Protection Set Channel III, Panel 1-R-9 inoperable. Inadequate operability determination.
03-014782	LER 390/2003-003 Automatic reactor trip due to actuation of a sudden pressure relay for Phase C Main Transformer Bank 1C.
03-014178	NCV 390/03-04-01 Inadequate instruction to implement EDG contingency actions

03-016237	NCV 390/03-04-02 Inadequate procedure for control of containment penetrations.
03-015894	NCV 390/03-04-03 Failure to follow procedure for ESF testing resulted in interruption of core cooling
03-018343	NCV 390/03-05-03 LER 390/2003-0065 Containment Spray Pump Motor found racked down in Mode 1
03-016948	NCV 390/03-05 LER 390/2003-005 Two trains of ABGTS out of service
02-013111	NCV 390/04-02-01 Inadequate procedure involving the control of ECCS venting.
03-014922	
03-019733	NCV 390/04-02-02 LER 390/2003-004 Inadequate corrective actions for previous ECCS venting problems
68941	NCV 390/04-04-02 Shift management failed to maintain proper level of oversight during rod drop event that caused a reactor trip.
69347	LER 390/2004-002 Manual reactor trip in response to a rod drop event.
03-020146	NCV 390/03-05-01 Failure to enter the appropriate Fire Protection Report OR for having the automatic start circuit of the electric-motor driven fire pumps defeated
03-019920	NCV 390/03-05-02 A seal was not installed in a cable conduit located in a fire barrier
69187	NCV 390/04-04-01 Failure to identify unsatisfactory performance of a fire brigade crew.
02-014475	NCV 390/04-02-01 Inadequate procedure involving the control of ECCS venting
03-005149	NCV 390/03-06 Failure to meet search requirements for an unsearched/unescorted tool box
65595 (Corp. Sec)	Failure to conduct required extended credit checks by contractor
64292	NCV 390/04-07-02 Failure to initiate call-out of off-duty security personnel in a timely manner
66181	NCV 390/04-07 Three examples of security officers exceeding the Work Hour Order.
03-006204	NCV 390/03-08-01 Inadequate corrective action for a previous NCV

Licensee Event Reports

LER 05000390/2003-004-00	Emergency Core Cooling System Surveillance Requirement 3.5.2.3 - Verify Piping is Full of Water
LER 05000390/2004-001-00	Automatic Reactor Trip due to an Invalid Turbine Trip Signal (P-4)
LER 05000390/2004-002-00	Manual Reactor Trip due to Dropped Rods

Security PERs

7495	A security officer issued the wrong visitor badge
7629	Self Assessment WBN-ENG-03-15 was not completed within 30 days
7848	NRC inspector questioned the attentiveness of a security officer

7933	Failed to complete NRC Performance Indicators for May 2003
7935	Security failed to complete Tracking and Trending for the month of May 2003
7937	Intrusion Detection System, Zone 38 Infarid exceeding the threshold established for writing PER's on loggable equipment failures
8091	NRC Inspection identified that AOI-42 symptoms should include dicussion of imminent threats
8097	NRC identified failure to properly evaluate the impact to the facility for the loss of large areas
8339	Gas truck departed the Protected Area without a security escort
8490	During performance testing of the Owner Controlled, Vehicle Barrier System (VBS) it was discovered that both inbound and outbound VBS were inoperable
8572	Erratic operations of the security radio system
8824	NSDP-1, Appendix A, Item no. 10. b, page 4 of 12 and App. B, page 11 of 30, guidance for loggable events are in conflict with NRC guidance in GL 91-03, NUREG 1304 and Draft Reg Guide DG-5008.
9276	A review of 2003 PERS discovered that 24 errors in procedure compliance occurred within the Security group
9803	NRC observed command and control at the firearms range needed improvement.
12547	Physical Security Plan not fully met during weekly functional testing on door A-113 due to a non-security related hardware failure
14486	During the Self Assessment CRP-EP-03-001, Local Law Enforcement Agency (LLEA) training rosters could not be located
14616	The root cause grading results for WBPEN 03-006445-000 did not meet management expectations.
14956	NRC identified during an inspection failure to properly analyze and document the impact to the facility for the loss of the Intake Pumping Station, due to waterborne threat
62335	NA Assessment NA-CH-04-002 identified problems with the completion of the overtime deviation forms
62365	NA Assessment NA-CH-04-002 questioned the classification of two PERs (14728 and 33990) related to overtime usage classified as Level D PERs.
64292	Upon loss of power to the security system, a recall of off duty members of the security force was not implemented within the time stated in SSI 2.8
64295 (B)	Portions of the compensatory measures for security system loss of power may not be conservative enough
64695	During a walk down performed by the resident NRC inspector, a group of VA hatches were found without the required signage, as described in the WBN Physical Security Plan
66628 (B)	Security is showing a decline in human performance based on error rate and injury rate
67151	During QA review of Security an Inspector noted differences between Day Shift and Night Shift on conducting inspections of the IPS
67493	Inadequate training exam process and oversight
67551	NA oversight of Security performance on August 11th and 12th identified that no TVA Security Managers or Pinkerton Management were providing oversight of Security operations or day/night shift turnover briefings.

- 69550 During closure of the West Portal Sally Port and opening of the North Portal Sally Port on 9/28/04, Interim Compensatory Measure B.2.c was not installed prior to making the Sally Port operational for vehicle traffic
- 69929 Protected Area Motor Patrols, failed to perform duties prescribed in SSI-2-7
- 71332 (B) NRC letter dated 10/29/04 denied TVA's October 26, 2004 schedule status letter of at risk items and required a 10 CFR 50.54(f) response
- 71850 NA identified issues with several Site Security Instructions (SSIs) during the independent verification activities associated with the WBN Security Upgrade Project
- 71851 During NA walk down with Security personnel to perform verification of VBS completion, numerous issues were identified with configurations not meeting the design output and or requiring the generation of additional design output (PIC) to make acceptable.
- 73414 The Security contractor maintains a work hour tracking system (WHTS) to monitor the Officers' work hours to meet the NRC's Fatigue Order. The delay time while the officer awaits shift turnover on post is not counted in the WHTS

High Pressure Fire Protection PERs

- 7419 0-ISV-26-852 was excavated without the proper administrative controls i.e. Fire Protection Impairment Permit.
- 7580 Leak in the A-Train High Pressure Fire Protection header identified by WO 03-09227-01.
- 7586 REPEATED FAILURE OF SPRINKLER FLOW ALARM TEST AT NPIO
- 7587 THRU WALL LEAK ON HPFP PIPING AT TRAINING CENTER. WO#03-11004
- 7809 The leak in the 'A' High Pressure Fire Protection header (Ref. work order 03-009227-000) has not been repaired
- 8019 DURING THE PERFORMANCE OF 0-TANK-026-0259, FILE 1, UNABLE TO OBTAIN THE AFFF LEVEL DUE TO NO MARKINGS ON THE SIGHT GLASS, PER SECTION 3.1 STEP 7.
- 8127 Inadvertent start of the diesel fire pump due to a lightning strike
- 8674 Leak in the weld of a 3 inch elbow on the 2-FCV-26-85 system
- 8780 Hold Order Tag Out (TO) 0229R5235 took out of service the Vital Inverter 1-II
No compensatory actions were established
- 8840 Leak in the 4 inch piping that supplies hose stations 2-ISV-26-602 and -603 in the Turbine Building
- 8916 Fire door A065 U1 annulus entry door was breached with out obtaining an SPP-10 Impairment Permit
- 9046 Possible MIC leak on the 12 inch Fire Protection pipe in the Unit 2 ERCW Pipe Tunnel adjacent to pipe hanger 0026-26-1FP-R91
- 9067 In adequate Hold Order review for impact on plant equipment.
- 9071 Fire Protection Impairment Permit C03-0647 was closed but jumpers were not removed
- 9103 System 26 has a leak on the 1-1/2 inch piping in the Unit 1 Pipe Chase, el. 713
- 9230 During review of TI-26.008 - System 26 Flushing, it was identified that the requirement to perform TRO sampling should be deleted

- 9299 During the planning of WO# 03-011003-000 for replacement of WBN-0-PCV - 026-0018 it was identified that the flange bolting installed on the downstream side of the PCV is 1' diameter rather than 7/8' diameter as specified on drawing 37W206-7 R/P (item 540) and 37BM206-10 sh3
- 9358 Leak on the 8 inch Fire Protection pipe at approximately A2-R in the Auxiliary Building, el. 713
- 9378 During management review of outage related PER's, several administrative deficiencies were identified with the fire protection impairment (SPP-10.9) permits
- 9498 Due to a leak in the Aux Building, the diesel fire pump was not run IAW 0-FOR-26-21
- 9499 Problems identified during QC inspection in work order 03-017820-000
- 9829 Fire Impairment Permit has not been requested from Fire Ops, thus hold order cannot be hung
- 9872 Herculite staged in 1B-B DG Room with no transient fire permit posted
- 12577 REPEATED FAILURES 0-PCV-026-0018. PRESSURE CONTROL VALVE IS NOT RESETTING AFTER A FIRE PUMP RUN
- 12652 During the performance of 0-FPS-304-0002, Inspection of Fire Barrier in the TSOB Computer Room, identified a 4' conduit was not properly sealed
- 12762 The 'B' Train high pressure fire pumps were tagged out on 09/17/2003 without SPP-10.9 Fire Protection Impairment Permit (C03-0567) issued
- 12811 DURING PERFORMANCE OF 0-SI-82-5, DG2A-A BO TESTING, FIRE PUMP 2A-A DID NOT START
- 12878 Due to problems with 0-PCV-26-18 failing to control pressure properly, 0-PCV-26-18 was isolated. FPS circuit was defeated without entering OR 14.2.3
- 12978 OPERATIONS ACTIVITY TO PLACE CLEARANCE 253304026, HPFP STRAINER 1A-A, WAS DELAYED DUE TO NO FIRE PROTECTION IMPAIRMENT PERMIT WAS PREPARED IN ADVANCE
- 14606 While performing WO# 03-014420-00 the UNID for the disconnect switches located in the back of (1-R-72) for the System 26 Fire Protection (FSV) was found to be mislabeled
- 33308 Design and implementation of the program for macrofouling were ineffective in correcting conditions identified in PER 02-203
- 33965 Flushing on system 26 designated points produced unacceptable free available oxidant (FAO) samples.
- 34086 DURING THE PERFORMANCE OF 03-008954-000, DEAD CLAMS WERE FOUND WHILE FLUSHING THE UNIT 2 MAIN BANK TRANSFORMERS FIRE PROTECTION SPINKLER SYSTEM
- 61530 Aux Building el 729 RR bay area has numerous bullhoses, debris, and other equipment blocking access to a fire hose station and a fire extinguisher
- 61533 Aux Building el 729 N2 bottle area a Green bullhose is partially blocking a firehose station
- 62083 System 25 and 26 were treated with Clamtrol during the weeks of 5/5/2004 and 5/19/2004 as required by SPP-9.7. This PER is to document components not receiving flow during the treatment timeframe
- 62570 WO 02-014833-061 was scheduled to work 6/3/04 @ 0000 to perform a breaker swap in the Fire Protection Distribution Panel. The permit will not be available until dayshift on 6/3/04

- 63209 Clearance section 078005228 not hung due to the fire impairment permit not being available
- 63211 Impairment permit was not ready to support placing hold order 075505067 for C-A ERCW pump
- 66329 TVA HVAC Contractor requested the removal of ceiling tiles in the Engineering Manager's Office and the Break Room EL 746 of the EQB for access to the Ceiling area Prior to obtaining a "Fire Protection Impairment Permit" as required by MI-13.104 section 4.1.4
- 66854 System 25 and 26 were treated with non-oxidizing biocide during the weeks of 7/26/2004 and 8/2/2004 as required by SPP-9.7. This PER is to document components not receiving flow during the treatment timeframe
- 69190 Contrary to the requirements of SPP-10.9, work on the office area of Warehouse B removed the ceiling tile in the sprinklered area and the Fire Protection unit was not informed
- 72613 TI-50.002 for 1A DG fuel oil day tank quarterly performance did not have a fire protection impairment ready and the prerequisites required to be done before performance caused this TI to be rescheduled
- 72738 DURING PERFORMANCE OF PM 0-FPS-026-0006, FLUSHING OF SPRINKLER SYSTEMS ON UNIT 2 MAIN AND USS TRANSFORMERS, THE DIESEL FIRE PUMP STARTED. PUMP STARTED WHILE FLUSHING THE 2-C MAIN AND USS TRANSFORMER SYSTEM
- 73282 Preventative maintenance (PM) procedures 0-IPS-067-0001 and 0-IPS-067-0002 visually inspect the 652.0 elevation of the IPS pump suction area but do not inspect the 663.0 and 671.0 elevations nor the System 26, HPFP pump wells.
- 74293 0-FOR-26-3 needs to be revised to provide an alternate method of inspection of the sprinkler piping/hangers for the Aux. Bldg. 'B' Emergency Gas System Charcoal filter Unit which are located inside the unit and will require a plug to be opened for inspection

Emergency Diesel Generators PERs

- 02-011441 Increased vibrations on 2A-A EDG
- 03-011094 2A-A EDG engine 2 oil line has slight interaction with the grating
- 7602 EDG vendor used non-conservative fouling factors when sizing heat exchangers
- 7713 2B-B EDG engine 2 left bank air start motors did not engage during drag start, PMT failure
- 7841 Pinhole leak in weld on EDG 2A-A engine 2 lube oil heat exchanger shell piping
- 7842 Pinhole leak in EDG 2A-A lube oil piping
- 8161 Fuel oil leak on 1B-B EDG required emergency stop
- 8865 OE - River Bend shutdown HPCS diesel due to significant fuel leak
- 9527 2A-A EDG intake damper 2-FCO-30-444 failed to open
- 12799 2B-B CCS pump sequenced on 31.5 seconds early during blackout testing
- 33458 OE - Palo Verde experienced erratic output of EDG voltage regulator
- 33562 OE - No plant instruction for performance of EDG emergency shutdown
- 62406 EDG 2B-B tripped and locked out on protective relay operation during surveillance test
- 63091 2A-A EDG electric board room exhaust fan vibrations high
- 67138 Increase in iron and silicon in the north generator bearing on 1A-A EDG

67404	EDG air start motor pressure switches not calibrated within specified frequency
69759	2A-A EDG made inoperable for work on air start system and appropriate LCO was not entered
71968	1B-B EDG exhaust fans did not auto start during performance of monthly surveillance
72039	2A-A EDG engine 2 air compressor breaker found tripped
72617	2A-A EDG engine 2 air compressor breaker found tripped (repeat of 72039)

EDG Work Orders

03-011098-000	Corrective Action for PER 03-011094-000, Grating above lube oil piping on 2A-A EDG needs to be modified to prevent interaction between pipe and grating (Cancelled)
03-011104-000	Corrective Action for PER 03-011099-000, Evaluate EDG 2B-B engine 1 setpoints for starting air compressor and starting air receiver pressure gauge calibration (Cancelled)
03-012225-000	Corrective Action for PER 02-011441-000 Obtain vibration data for EDG 2A-A per vendor recommendations (Cancelled)
03-020894-000	Investigate and repair cause of 2A-A EDG ventilation intake damper opening slowly
03-022608-000	Corrective Action for PER 3915, Inspect HEA relay located on panel 7 of the 6.9 kV fifth diesel generator board (Cancelled)
04-810470-000	Corrective Action for PER 03-016710-000, Remove additional elbow between the tee and fuel oil pressure gauge on 2B-B EDG
04-815172-000	The following panels have broken bolt heads: 1-PNL-82-A3, 1-PNL-82-B/4, 1-PNL-82-B/1, 2-PNL-82-B/4 (Cancelled)
04-817789-000	Second bolt from the top on the rear panel cover of 2-PNL-82-B/4-B is broken (Cancelled)
04-824646-000	Investigate and repair 2A-A EDG air compressor breaker tripped
04-824715-000	2B-B EDG engine 2 has low oil level (Cancelled)
04-824843-000	2A-A EDG engine 1 air receivers require manual blowdown (operator workaround)
04-825545-000	2A-A EDG engine 2 air compressor breaker found tripped
04-825588-000	2B-B EDG air dryer solenoid valve is not energizing

Calculations

Emergency Diesel Generator Jacket Water Heat Exchanger Evaluation (EDMS #T71 030617 801)

Auxiliary Feedwater PERs

5619	MDAFW level control valves cannot be qualified to meet design bases requirements to close and stay closed against high differential pressure operating conditions
7417	An unplanned entry into LCO 3.7.5 occurred when the TDAFW pump inboard bearing oil sightglass lost oil level when the pump was stopped
8057	TDAFW pump inboard bearing bubbler assembly was loose

8742	Panel 1-L-381 el 692 aux building which houses TDAFW level control instrumentation was inadvertently exposed to excessive water
8751	Evaluate System 003 FAC grids inside containment that fail to meet the initial criteria for continued operation to RFO-6
9502	Leakage through 1-LCV-3-174A, SG1 TDAFW pump LCV, exceeded the allowable 20 gpm as described in the system description
9505	TDAFW pump outboard bearing oil sample showed water in the oil
9541	Unscheduled entry into LCO 3.7.5 due to leakage past 1-LCV-3-174A. The leakage was greater than 50 gpm with no demand for the valve to be open.
9687	Unplanned entry into LCO 3.7.5 upon failure of TDAFW pump room DC fan
9713	Instruction change to 1-SI-3-22, 18 Month Channel Calibration of Auxiliary Feedwater Pump 1B-B Suction Header Pressure Switches, was incorrectly processed as a minor typographical change instead of a non-intent change
12602	OE - Point Beach AFW recirculation orifice plugging issues
13505	TDAFW pump bearing oil sample on 10/18/03 is above warning limits for particle count
14768	Management questioned why 1-LCV-3-174 (AFW to SG1) is not tested during the quarterly pump performance test
61438	Ladder tied off to instrument drain lines associated with the TDAFW pump
67347	The bearing cooling supply line to the 1A MDAFW pump is bent and has very slow leak (1 drop/min) at the threaded connection
67913	As found MOVATS test on the ERCW header to AFW pump suction isolation valve found the unseating thrust and torque exceeded the guaranteed motor thrust and torque as shown on drawing 47A8910-03-10
72202	During the performance of 1-SI-3-901-B, Motor Driven Aux Feed Pump 1B-B Quarterly Performance Test, a technician inappropriately N/A'd steps involving vent and fill of instrument lines during restoration of test equipment
73994	Significant resources were expended on project WBC5641, Replace MDAFW LCV's, prior to determining that the project could not be implemented as originally scoped and approved. Additionally, the GL 91-18 condition that drove this project is now to be resolved for the current operating cycle without implementing the project.

AFW WOs

02-010876-003	Test MDAFW level control valves for leakage when exposed to high differential pressure operating conditions
03-003974-000	TDAFW pump inboard bearing oil level low
03-010031-000	TDAFW pump inboard bearing has a very slow oil leak
03-012489-000	TDAFW pump bubble is low on oil
03-015068-000	1B MDAFW pump need oil added to both pump bearing sightglasses
03-016067-000	1A MDAFW pump add oil to pump bearing
03-016079-000	1B MDAFW pump outboard bearing oil level is low
03-016801-000	During performance of 1-SI-3-81, 1-PDIC-3-132A did not operate in manual
03-017746-000	During performance of 1-SI-3-907-B 1-LCV-003-0171-B failed to go and stay full open. Air leak also heard.
03-017758-000	During performance of 1-SI-3-907-B, during the silt flushing portion, there was no flow coming from 1-TTV-3-808-B

03-022683-000	Investigate source of water in TDAFW pump outboard bearing oil
03-022711-000	TDAFW pump outboard bearing oil level is low
04-810795-000	1A MDAFW pump outboard motor bearing is weeping oil
04-810975-000	1-PI-3-1 failed high, repair or replace
04-817857-000	TDAFW pump breakdown orifice initially failed the flow test on the high side. Test was re-performed and was satisfactory.
04-821294-000	Replace 1A-A MDAFW pump bearing cooling water lines
04-821504-000	Replace 1B-B MDAFW pump bearing cooling water lines

Auxiliary Feedwater Control System PERs

7448 OE - Browns Ferry HPCI turbine tripped due to the magnetic pickup unit not functioning

AFWCS WOs

03-010613-000 Corrective Action for PER 7448, Inspect TDAFW turbine magnetic pickup amphenol connectors

Essential Raw Cooling Water (ERCW) PERs

73215	New tubesheets issued for Main Control Room Chiller B did not have appropriate documentation
76890	This PER was written to address the problems with PER 73215
7858 (B)	Testing performed identified that valve seat material did not meet design requirements
14346 (B)	Failure of B Main Control Room Chiller resulted in an unplanned entry into LCO
74391 (B)	Failure to identify and document an ERCW silt accumulation trend
12591	No PER was generated to document blockage in ERCW supply to the CCS surge tank as required by SPP 9.7, Appendix C
34322	Failure to document blockage in a PER identified during a ultrasonic inspection
3308 (A)	Failure to implement corrective actions from previous corporate A level PER on macrofouling
63708 (B)	Work performed on wrong unit ERCW Strainer Inlet Pressure Gauge
9381	Pipe Chase Cooler 1A ERCW Return Valve found with locking device unlocked, broken, and bent.
64619	Locking device for 1-ISV-67-600A, 1A CCP Room Cooler ERCW Supply Isolation Valve, incorrectly installed
68813	Penetration Room Cooler 1B-B ERCW Return Throttle Valve was found inadequately secured by locking wire
72929	Locking Device on 1-ISV-67-602A not properly installed
70044	Some B Train ERCW pumps have displayed an increasing performance trend for an unknown reason.
69926	Documentation Error in Calculation Abstracts
70049	Problems with TI-67.007 and TI-67.002 flow acceptance criteria
70183	ERCW System Flow Analysis model may need to be revised

70052	To determine industry standard for the approach to periodic flow balancing in accident conditions and modify the WBN program appropriately
9413	Several large holes identified on 2AA ERCW Traveling Screen 2-TWS-67-439
61665	Trending PER to document examples of active galvanic corrosion cells on ERCW bolting
70184	Justification and technical basis for performing periodic CCS heat exchanger inspection and cleaning in lieu of periodic performance testing was not documented in a detailed evaluation
63850	Hole in 1B ERCW Supply Header
66241	No easy access to 1-ISV-67-523B where scaffolding or an EOP ladder is required to provide access to the valve in a timely manner
74107	ERCW leak caused by the rupture of a rubber gasket in a flanged pipe connection
14821	Blockage identified upstream of 1-FCV-3-136A
8201	Partial blockage of horizontal ERCW supply piping to turbine driven auxiliary feedwater pump
9158	Water leakage found on oil cooler to A-A ERCW Pump
67547	Valve chain operator loose
69990	Radiography performed on component in wrong train
9509	H-B ERCW Pump did not pass total developed head (TDH) requirement during performance of 1-SI-67-902B
33296	Blockage identified of ERCW supply piping to the B Station Air Compressor Aftercooler
33431	Paint found on stainless steel ERCW piping
65145	No acceptance criteria specified for PMT as required by SPP-6.3
68139	Seal weld leak identified on 1-RFV-67-514A
8732 (B)	Flood on elevation 692 from ERCW Discharge Header work on flanged connection
3308 (A)	Failure to implement corrective actions of previous corporate A level PER on macrofouling

Main Control Room (MCR), Shutdown Board Room (SDBR), and 480V Board room Air Conditioning PERs

74180	Shutdown Board Room Chiller A tripped on high oil/discharge temperature
73919	Main Control Room chill water pump hand switch found out of position
66930	Discrepancies identified between EPRI document and WBN Closed Cooling Water Strategic Plan and chemistry procedures
63091	Abnormal vibrations on 2A Diesel Generator exhaust fan
33918	2A 480V Board Room Chiller condensing unit breaker was found tripped
9522	Backdraft damper 0-BKD-031-2001A found open when it should have been closed
9407	Replacement 2-FS-031-0460-A switch was not a like-for-like replacement
9043	When the 1B-B main control room chiller was determined to be tripped, the appropriate Technical Specification was entered but a loss of safety function determination was not performed
8238	Main Control Room A chilled water system pH is outside of limits

- 71055 Main Control Room A chilled water system contaminants above action level 1 requirements
- 9416 Valve 1-TCV-67-158 was installed opposite preferred direction as indicated by arrows on valve body

Emergency Preparedness PERs

- 3885 MMG Craft Personnel Inadvertently Entered Control Room Without the Proper Clearance Level
- 7485 Documentation Was Scanned into the PER with Social Security Numbers of the Involved Individuals
- 7753 Greater than 30% of the Off-site Notification Sirens Are Out-of-Service Due to Weather-Related Power Loss
- 71525 Off-year EP Exercise Missed Declaration
- 71527 Assembly and Accountability Expectations

Radiation Protection PERs

- 7472 The Waste Gas Analyzer Room Went Radiologically Airborne During Troubleshooting of the Waste Gas Analyzer
- 7556 The Area in Front of the Hot Sample Room Sample Panel Is Designated as a C-Zone
- 7569 The External Pressure Sensor O-Ring Was Not Installed Causing Leak from Waste Gas Analyzer
- 7722 INPO-Requested Review of Radiological Protection Programs to Ensure That Adequate Barriers Are in Place to Prevent an Unplanned Radiation Exposure Such as That of Almost 2 Rem at Perry Nuclear Power Plant
- 7727 Indication of Small Leak in Waste Gas Analyzer Room
- 7776 MMG Personnel Inadvertently Stepped in Contaminated Portion of EI. 713 U-1 Pipe Chase While Performing 1-SI-63-10a Resulting in Particle Contamination
- 7815 Worker Exited the U-1 Annulus with a 1000 Cpm Particle on His Scrub Pants
- 7853 Dry Boron Packing Leak on 1-ISIV-063-0350C, Isolation Valve to FI-63-2
- 7863 Dry Boron Leak on 1-CKV-062-0931
- 7959 While Transporting Radioactive Sources to Refuel Floor to Await Disposal, a Worker's Left Shoe Became Contaminated
- 8053 1-ISV-62-929 Appears to Have Dry Boron Residue at Gasket
- 8054 1-ISIV-63-309B/2 Has Dry Boron Residue at Packing
- 8055 Dry Boron Residue on Cap of Test Tee Downstream of 1-ISIV-63-310B/C
- 8056 1-FCV-62-140-A Dry Boron Residue at Valve Packing
- 8058 1-PDIS-62-0097 Dry Boron Residue on Fitting on Low Pressure Side
- 8059 1-ISIV-62-0097BC/L Dry Boron Residue on Top of 1st Down Stream Fitting
- 8060 1-PDIS-62-0097 Dry Boron Residue on the Bottom of the Fitting on the Low Pressure Side
- 8061 1-ISIV-62-0097BC/L Dry Boron Residue on Packing
- 8062 Worker Was in U1 Aux Bldg on 772 MG Set Room and Became Contaminated on Shoe
- 8167 1-ISIV-72-206C/1 Has Dry Boron Residue on Packing
- 8176 1-FT-68-48A-D Has Wet Boron Leak at 1-L-502
- 8186 Worker on Refuel Floor Picked Up 150-CPM Particle on Bottom of Shoe

- 8200 Dry Boron Leak on Three Components, 1-PI-43-36 and 1-FIC-43-36, Located on PNL 1-L-232 in the Hot Sample Room 713' AB
- 8255 Leakage Downstream of 1-SMV-43-844 Has Resulted in Boric Acid Residue Streaming ~12 Feet Down the Outer Annulus Wall
- 8306 An Individual Performing an LLRT on the Upper Containment Airlock Entered into a Posted High Radiation Area Without Receiving a HRA Briefing
- 8347 Worker Entered 1AA RHR/CS Hx Room Building Scaffolding for WO # 0209676000 and Alarmed PCM2 upon Exiting
- 8349 Worker Entered 1AA RHR/CS Hx Room Building Scaffolding for WO # 0209676000 and Alarmed PCM2 upon Exiting
- 8350 Worker Entered 1AA RHR/CS Hx Room Building Scaffolding for WO # 0209676000 and Alarmed PCM2 upon Exiting
- 8464 FME Controller Was Contaminated on the 757' Refueling Floor While Providing Coverage for Workers Inside the Cask Loading Pit
- 8466 Worker Was Flagging/Rigging for Man-Basket Used to Transport Personnel for Transfer Canal Work and upon Exit from HPCZ/CA Worker Alarmed PCM-1B on EI 757
- 8473 Dry Boron Leak on 1-ISV-074-0524 around Stem and Packing
- 8546 Personnel Picked Up a Particle While Working and Traveling on EI.757 Refuel Floor and the Emergency Gas Treatment Room
- 8596 While Attempting to Flush a Hot Spot from a Pressurizer Line, the Flush Hose Blew out of the Floor Drain Causing a Large Area of Lower Containment to Become Contaminated
- 8671 During Flood-up of the Reactor Cavity, Containment Went Airborne after the Water Flowed over the Top of the Reactor Vessel Flange Resulting in Internal Contamination of Individuals
- 8736 An ISI Worker Received a Dose Rate Alarm Inside the Enclosure Top of the Pressurizer
- 8757 Lead Shielding Was Found Removed from #1 Hot Leg
- 8931 Hot Trash Was Brought to the Lower Containment Stepoff Pad Without Notification Creating a Radiation Area in the Area Where Personnel Normally Undress.
- 8970 Radcon Responded to a High Radiation Alarm for 1-RE-90-59B and Found that the Monitor Was Taped over in order to Silence the Audible Function
- 8999 Refuel Floor Craft Inadvertently Hooked to the Wrong Tri-Nuc System and Pulled it out of the Water Causing Area Radiation Monitors to Alarm and Dose a Rate Alarm on One of the Individuals Supporting the Activity.
- 9006 Individual Was Contaminated on Right Shoe While Working in the Radwaste Railroad Bay Cask Area
- 9265 Radcon Technician Allowed Individuals to Continue Working on 1-SI-72-701A after ED Dose Alarm Had Occured
- 9346 Individual Was Contaminated While Working on the 757 Refuel Floor
- 9347 Individual Was Contaminated While Working on a Scaffold in the U1 713 Pipe Chase
- 9449 Worker Exited the U2 692' SIS 2A-A Pump Room with a 2500cpm Particle on the Front of the Shirt
- 12617 Wet Boron Leak on 1-FT-068-0048A on RCS Loop 3 Coolant Flow
- 12731 The Check Source Is Missing from Rad Monitor 0-RM-90-134
- 12734 Plant Services Personnel Contamination on Right Shoe

12740	Plant Services Personnel Contamination on Shoe
14666	Higher than Expected Dose Rates Were Observed in the S/G Cold Leg Bowls and on the Refueling Floor
15059	An Individual Who Had Been Working on the Refuel Floor Alarmed the PCM When He Attempted to Exit the RCA
33956	Airborne Due to System Breach
34237	Worker Alarmed PM7 and a Discrete Particle Was Found on the Left Shoe
66998	Trend PER to Document Five Occurrences Within the Past 6 Months of Incorrect RWP Usage Involving Entry to High Radiation Areas on the Wrong RWP
67751	Worker Making Rounds in Aux Bldg Alarmed PCM
69012	This PER Documents Four Personnel Contamination Events Due to Changing out the RCS Filter and Removing Trash from the RCS Filter Cubicle

System Descriptions, Configuration Control Drawings, and System Status Reports

N3-77A-4001, Revision 6, Gaseous Waste Disposal System
 N3-77B-4001, Revision 7, Solid Waste Disposal
 N3-77C-4001, Revision 9, Liquid Radwaste Processing System
 WB-DC-40-24, Revision 14, Radiation Monitoring
 Drawing 1-47W610-90-1, Revision 33, Electrical Control Diagram - Radiation Monitoring System
 Drawing 1-47W610-90-2, Revision 46, Electrical Control Diagram - Radiation Monitoring System
 Drawing 1-47W610-90-3, Revision 33, Electrical Control Diagram - Radiation Monitoring System
 Drawing 1-47W610-90-4, Revision 56, Electrical Control Diagram - Radiation Monitoring System
 System Status for the Radiation Monitoring System (System 090) for 2nd, 3rd, and 4th Quarters of FY 2003
 System Status for the Waste Disposal System (System 077) for 2nd, 3rd, and 4th Quarters of FY 2003

Training Lesson Plans:

3-OT-SI82.3	0-SI-82.3 18 Month Loss of Offsite Power with Safety Injection Test - DG 1A-A
3-OT-MS-C-072A	Limiting Conditions for Operation and Surveillance Requirements During Shutdown for Plant Outage

Audits and Self-Assessments

Watts Bar Nuclear Plant - Analysis of Site Integrated Analysis for Third and Fourth Quarters of 2003, dated January 29, 2004
 Watts Bar Nuclear Plant - Site Integrated Analysis for Second Quarter of 2004, dated May 7, 2004
 Summary of WBN FY04 3rd Quarter Integrated Analysis

Periodic Site PER Analysis, dated 9/21/2004, Site Support Trending and Analysis of WBN PERs through August 2004
 Periodic Site PER Analysis, dated 11/22/2004, Site Support Trending and Analysis of WBN PERs through October 2004
 Open Effectiveness Review Actions for PERs
 Nuclear Assurance (NA) Assessment Report NA-CH-03-001 - Corrective Action Program (CAP) Assessment
 NA Addendum to Assessment Report NA-CH-03-001 - CAP Assessment
 Watts Bar Nuclear Plant - NA Bi-Monthly Oversight Report for the Period of March 21, 2003, through May 20, 2003 - NA-WB-03-003
 Watts Bar Nuclear Plant - NA Bi-Monthly Oversight Report for the Period of May 21, 2003, through July 20, 2003 - NA-WB-03-005
 Watts Bar Nuclear Plant - NA Bi-Monthly Oversight Report for the Period of July 1, 2003, through October 31, 2003 - NA-WB-03-006
 Watts Bar Nuclear Plant - NA Bi-Monthly Oversight Report for the Period of November 21, 2003, through January 20, 2004 - NA-WB-04-001
 Watts Bar Nuclear Plant - NA Bi-Monthly Oversight Report for the Period of January 21, 2004, through March 20, 2004 - NA-WB-04-002
 Watts Bar Nuclear Plant - NA Bi-Monthly Oversight Report for the Period of March 21, 2004, through May 20, 2004 - NA-WB-04-003

Watts Bar Nuclear Plant - NA Quarterly Oversight Report for the Period of August 21, 2004, through December 20, 2004 - NA-WB-04-005

Other PERs

02-013111 1-SI-63-10A, ECCS Venting Train A, Section 6.0 Note 4 contains actions to time an evolution and record results in the test log. No mechanism is specified for timing, and actions should be procedural steps.

02-014475 During performance of 1-SI-63-10A, Appendix F (Cold Leg 1 RHR injection line) an air/gas mixture was received for approx 25-30 seconds followed by an air/water mixture for 2-3 minutes.

03-010602 WO 02-016715-000, Rebuild seals for thermal barrier booster pump did not specify to perform 1-FOR-70-4, Thermal Barrier Booster Pump 1A Quarterly Performance Test, as a post maintenance test.

03-010788 Operations personnel inappropriately exited OR-14.10 prior to completion of adequate testing to demonstrate the 1A-A CCS thermal barrier booster pump was operable following maintenance

8592 (B) Cooling to the B RHR heat exchanger was terminated by blackout testing when the running CCS pump was load shed

8697 During RFO-5 TI-68.002, Containment Penetrations and Closure Control, was inadequately implemented

9584 (B) At 1137 on 1/16/2004, WBN Unit 1 tripped from 100% power

14691 (B) During preparations for blackout testing operations personnel opened supply breaker on the operable ABGTS train

68941 (B) WBN Unit 1 was manually tripped at 0456EDT on 9/19/2004 in response to four control rods in Control Bank B Group 2 fully inserting at 100% power

- 69347 (B) Shift crew response to the control rod drop event on 9/19/2004 did not meet management expectations
- 3157 Fuel handling accident main control room and offsite radiation dose calculations incorrect
- 4348 Vendor Notification (VN) 38421, 10CFR21 Report #41 concerning terry turbine trip throttle valve spindle has identified that material substitution of grade 12XX steel in place of grade 1018 carbon steel specified by design.
- 13972 Air distribution duct in main control room overhead may not comply fully with design basis requirements for seismic qualification.
- 3946 During MCR lighting diffuser replacement 10 ceiling hardware deficiencies were discovered
- 8736 Management expectations have not been met during transition of the WBN U2 PM program

Other Documents:

U1 Cycle 6 Outage Safety Plan
Outage LCOs Training Power Point Presentation