

October 30, 2002

EA-02-196

Mr. William R. Kanda
Vice President - Nuclear, Perry
FirstEnergy Nuclear Operating Company
P. O. Box 97, A290
Perry, OH 44081

SUBJECT: PERRY NUCLEAR POWER PLANT
USNRC INTEGRATED INSPECTION REPORT 50-440/02-06

Dear Mr. Kanda:

On September 30, 2002, the U.S. Nuclear Regulatory Commission (USNRC) completed an inspection at your Perry Nuclear Power Plant. The enclosed report documents the inspection findings which were discussed on October 10, 2002, with Mr. T. Rausch and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, the inspectors identified two issues of very low safety significance (Green). The issues were determined to involve violations of USNRC requirements. However, because of their very low safety significance and because they have been entered into your corrective action program, the USNRC is treating these issues as Non-Cited Violations in accordance with Section VI.A.1 of the USNRC's Enforcement Policy.

If you contest the subject or severity of these Non-Cited Violations, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission - Region III, 801 Warrenville Road, Lisle, IL 60532-4351; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspector Office at the Perry Nuclear Power Plant.

During this past year, in response to the terrorist attacks on September 11, 2001, the USNRC issued an Order and several threat advisories to commercial power reactors to strengthen licensees' capabilities and readiness to respond to a potential attack. The USNRC established a deadline of September 1, 2002, for licensees to complete modifications and process upgrades required by the Order. In order to confirm compliance with this Order, the USNRC issued Temporary Instruction 2515/148 and over the next year, the USNRC will inspect each licensee in accordance with this Temporary Instruction. The USNRC continues to monitor overall security controls and may issue additional temporary instructions or require additional inspections should conditions warrant.

In accordance with 10 CFR 2.790 of the USNRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the USNRC Public Document Room or from the Publicly Available Records (PARS) component of USNRC's document system (ADAMS). ADAMS is accessible from the USNRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Mark A. Ring, Chief
Branch 1
Division of Reactor Projects

Docket No. 50-440
License No. NPF-58

Enclosure: Inspection Report 50-440/02-06

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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-440
License No: NPF-58

Report No: 50-440/02-06

Licensee: First Energy Nuclear Operating Company (FENOC)

Facility: Perry Nuclear Power Plant, Unit 1

Location: P.O. Box 97 A200
Perry, OH 44081

Dates: July 1, 2002 through September 30, 2002

Inspectors: Ray Powell, Senior Resident Inspector
Billy Dickson, Jr., Acting Senior Resident Inspector
John Ellegood, Resident Inspector
John E. House, Senior Radiation Specialist

Approved by: Mark A. Ring, Chief
Branch 1
Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000440-02-06; First Energy Nuclear Operating Company; on 07/01-09/30/2002; Perry Nuclear Power Plant. Maintenance Effectiveness, Surveillance Testing.

This report covers a 3-month period of baseline resident inspections and an announced baseline inspection on radiation protection. The inspections were conducted by resident inspectors and regional specialist inspectors. This inspection identified two Green findings which involved Non-Cited Violations. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be "Green" or be assigned a severity level after USNRC management review. The USNRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. Inspection Findings

Cornerstone: Mitigating Systems

Green. The inspectors identified a Non-Cited Violation of 10 CFR 50.65 (a)(2) for the licensee's failure to demonstrate that the performance of the rod control and information system (RCIS) was being effectively controlled through the performance of appropriate maintenance. The licensee's failure to consider the rod insertion function of the RCIS when evaluating system performance was determined to be the cause of the error.

The issue was evaluated as having very low risk significance (Green) since, although the mitigation system cornerstone was affected in that reactivity control was degraded by loss of a RCIS safety function, no actual loss of rod insertion ability occurred due to other methods being available. (Section 1R12)

Green. The inspectors identified a Non-Cited Violation of Technical Specification (TS) 5.4 for the licensee's failure to follow procedures regarding tagging of improperly reading equipment. The primary cause was the cross-cutting issue of human performance since the technicians and operators failed to recognize out-of-specification data in the partially completed surveillance indicated equipment degradation.

The finding was more than minor because an indication used by control room personnel for vessel level did not read correctly and under other circumstances a failure of a control function could have been overlooked. The finding was of low safety significance because no loss of automatic protective functions occurred and other indications of vessel level were available to operators. (Section 1R22)

B. Licensee-Identified Violations

A violation of very low significance which was identified by the licensee has been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. This violation is listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

The plant began the inspection period with Unit 1 at 100 percent power. On July 4, the licensee reduced power to 75 percent after declaring a main steam isolation valve (MSIV) inoperable following evaluation of surveillance practices. The same day, the licensee successfully tested the MSIV and began power ascension. On July 5, the plant reached 100 percent power. On July 30, the plant isolated the hydraulic power unit to recirculation flow control valve 'A' to repair a leak on the hydraulics. While the hydraulics were isolated, the flow control valve slowly drifted in the closed direction lowering power to 97 percent. On September 11, 2002, the licensee isolated one train of circulating water due to a condenser tube leak. As a result, operators reduced power to about 97 percent in order to maintain a condenser vacuum. On September 16, the licensee reduced power to 65 percent to effect repairs on the condenser. Following repairs, on September 18, 2002, the licensee returned to 100 percent power. On September 22, the plant scrambled during performance of routine turbine overspeed testing. The plant remained shutdown for the rest of the reporting period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather (71111.01)

a. Inspection Scope

The inspectors reviewed the licensee's hot weather preparations to verify the licensee's implementation of procedures to ensure availability of mitigating systems when challenged by extreme weather. The inspectors reviewed applicable licensee procedures and condition reports, walked down portions of the turbine building chilled water system and discussed hot weather preparations with licensee personnel. During the week of July 1, 2002, the inspectors verified that the licensee was trending temperatures on several key plant parameters adversely affected by abnormally high ambient air temperature.

b. Findings

No finding of significance were identified.

1R04 Equipment Alignment (71111.04)

.1 Complete System Walkdown

a. Inspection Scope

The inspectors performed a complete walkdown of accessible portions of the residual heat removal (RHR) system to verify system operability during the week ending August 10, 2002. The RHR system was selected due to its risk significance. The

inspectors used RHR system valve lineup instructions (VLIs) and system drawings to accomplish the inspection.

The inspectors observed selected switch and valve positions, electrical power availability, component labeling, and general material condition. The inspectors also reviewed open system engineering issues as identified in the licensee's quarterly system health reports, outstanding maintenance work requests, and a sampling of licensee condition reports (CRs) to verify that problems and issues were identified, and corrected, at an appropriate threshold. The documents used for the walkdown and issue review are listed in the attached List of Documents Reviewed.

b. Findings

No findings of significance were identified.

.2 Partial System Walkdowns

a. Inspection Scope

The inspectors conducted a partial walkdown of the fire protection system while the diesel driven fire pump was out of service for planned maintenance during the week ending August 10, 2002.

The inspectors used licensee VLIs and system drawings during the walkdowns. The walkdowns included selected switch and valve position checks and verification of electrical power to critical components. Finally, the inspectors evaluated other elements, such as material condition, housekeeping, and component labeling. The documents used for the walkdowns are listed in the attached List of Documents Reviewed.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05Q)

a. Inspection Scope

The inspectors walked down the following areas to assess the overall readiness of fire protection equipment and barriers:

- Fire Area 1DG-1a, Diesel Generator Building 620, Division 1 Diesel Generator;
- Fire Area 1RB-1b, Unit 1 Reactor Building - El. 599'-9";
- Fire Area 1RB-1b, Unit 1 Reactor Building - El. 620'-6";
- Fire Area 1RB-1b, Unit 1 Reactor Building - El. 642'-6";
- Fire Area 1RB-1b, Unit 1 Reactor Building - El. 654'-0";
- Fire Area 1RB-1b, Unit 1 Reactor Building - El. 664'-7";
- Fire Area 1CC-6, Unit 1 Control Complex Floor 6;
- Fire Zone FH-3, Fuel Handling Building- El. 620"-6"; and
- Heater Bay.

Emphasis was placed on the control of transient combustibles and ignition sources, the material condition of fire protection equipment, and the material condition and operational status of fire barriers used to prevent fire damage or propagation.

The inspectors looked at fire hoses, sprinklers, and portable fire extinguishers to verify that they were installed at their designated locations, were in satisfactory physical condition, and were unobstructed. The inspectors also evaluated the physical location and condition of fire detection devices. Additionally, passive features such as fire doors, fire dampers, and mechanical and electrical penetration seals were inspected to verify that they were in good physical condition. The documents listed at the end of the report were used by the inspectors during the assessment of this area.

b. Findings

No findings of significance were identified.

1R06 Flood Protection

a. Inspection Scope

The inspectors reviewed the licensee's evaluation of Jersey barrier placement in the swale that accepts emergency service water (ESW) discharge when the normal ESW discharge path is not available. The inspectors reviewed the licensee's evaluation of the potential for flooding in the auxiliary building as a result of this placement. During the week ending August 10, the inspectors walked down the areas affected by the Jersey barrier placement.

b. Findings

No findings of significance were identified.

1R7 Heat Sink Performance (71111.07A)

a. Inspection Scope

The inspectors reviewed the licensee's test data on the performance of diesel generator (DG) 1 and 2 water jackets. The inspection validated correlation between test conditions and actual service conditions, periodicity of testing frequency, test acceptance criteria, and trends in heat exchanger performance. In addition, the inspectors walked down portions of the system applicable to monitoring of heat exchanger performance.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11)

a. Inspection Scope

On August 6, 2002, the resident inspectors observed licensed operator performance in the plant simulator. The evaluated scenario included an unisolable leak in the reactor core isolation cooling (RCIC) system and a stuck control rod.

The inspectors evaluated crew performance in the areas of:

- clarity and formality of communication;
- ability to take timely action in the safe direction;
- prioritizing, interpreting, and verifying of alarms;
- correct use and implementation of procedures, including alarm response procedures;
- timely control board operation and manipulation, including high-risk operator actions; and
- group dynamics.

The inspectors also observed the licensee's evaluation of crew performance to verify that the training staff had observed important performance deficiencies and specified appropriate remedial actions.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12Q)

a. Inspection Scope

The inspectors reviewed the licensee's implementation of the maintenance rule requirements to verify that component and equipment failures were identified and scoped within the maintenance rule and that select structures, systems, and components were properly categorized and classified as (a)(1) or (a)(2) in accordance with 10 CFR 50.65. The inspectors reviewed station logs, maintenance work orders, selected surveillance test procedures, and a sample of CRs to verify that the licensee was identifying issues related to the maintenance rule at an appropriate threshold and that corrective actions were appropriate. Additionally, the inspectors reviewed the licensee's performance criteria to verify that the criteria adequately monitored equipment performance and to verify that licensee changes to performance criteria were reflected in the licensee's probabilistic risk assessment. During this inspection period, the inspectors reviewed:

- rod control and information system (RCIS); and
- Fire Protection System.

The problem identification and resolution CRs reviewed are listed in the attached List of Documents Reviewed.

b. Findings

The inspectors identified a violation of 10 CFR 50.65(a)(2) in that the licensee failed to adequately demonstrate the performance or condition of some functions of the rod control and information system. This was a Non-Cited Violation.

For over a year, the Perry plant has experienced rod control and information system lockups. During a lockup, the ability to manually move a control rod in or out is lost. While the majority of the lockups were able to be reset from the control room, 10 “hard” lockups (defined as a lockup which could not be reset from the control room) were experienced in the past 15 months. The majority of the “hard” lockups were due to transponder card failures.

Despite this loss of movement capability, the system was not considered for (a)(1) monitoring under the maintenance rule. Further investigation revealed that the licensee did not consider the lockups to be a functional failure under the maintenance rule. The licensee’s maintenance rule program includes a function of the C11 (RCIS and rod control hydraulics) to “manually insert control rods for reactor shutdown and alternate reactivity control using one nonsafety-related control rod drive (CRD) pump.” When questioned, the licensee stated that this function can be met without RCIS by using Perry Emergency Instruction (PEI) 1.6, “Increased Cooling Water Differential Pressure.” This procedure provides a method of control rod insertion during an anticipated transient without scram when the reactor protection system and alternate rod injection fail and RCIS is not available.

The inspectors concluded, however, that an RCIS lockup which prevented RCIS manual rod movement was a functional failure with respect to the maintenance rule. Specifically, PEI-B13, “Reactor Pressure Vessel Control” and PEI-T23, “Containment Control” both invoke PEI 1.3, “Manual Rod Insertion.” PEI 1.3 stated that RCIS was needed to insert rods. Paragraph (b) of 10 CFR 50.65 stated, in part, that the scope of the monitoring program specified in paragraph (a)(1) shall include nonsafety-related structures, systems, or components that are relied upon to mitigate accidents or transients or are used in plant emergency operating procedures. Although the RCIS was scoped within the maintenance rule, the licensee failed to consider the rod insertion function of the RCIS when evaluating system performance.

10 CFR 50.65 (a)(2) stated, in part, that monitoring as specified in 10 CFR 50.65 (a)(1) was not required where it had been demonstrated that the performance or condition of a structure, system, and component (SSC) is being effectively controlled through the performance of appropriate preventive maintenance, such that the SSC remains capable of performing its intended function. Contrary to the above, the licensee failed to demonstrate that the performance of the RCIS was being effectively controlled through the performance of appropriate maintenance.

The inspectors determined that the violation was more than minor using guidance in Appendix E of Inspection Manual Chapter 0612. Specifically, the violation was more than minor because equipment performance problems resulted in 10 “hard” lockups since May 2001. Thus, demonstration that the performance of the system was

effectively controlled through the performance of appropriate maintenance such that the system remained capable of performing its intended function could not be justified.

Using the SDP, this issue was evaluated as having very low risk significance (Green) since, although the mitigation system cornerstone was affected in that reactivity control was degraded when a safety function of the RCIS was lost, no actual loss of rod insertion ability occurred due to other methods being available. This violation is being treated as a NCV (**NCV 50-440/02-06-01**) consistent with Section VI.A. of the USNRC Enforcement Policy. This violation was entered in the licensee's corrective action system as CR 02-03555.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

a. Inspection Scope

The inspectors reviewed the licensee's evaluation of plant risk, scheduling, configuration control, and performance of maintenance associated with planned and emergent work activities, to verify that scheduled and emergent work activities were adequately managed. In particular, the inspectors reviewed the licensee's program for conducting maintenance risk assessments to verify that the licensee's planning, risk management tools, and the assessment and management of on-line and shutdown risk were adequate. The inspectors also reviewed licensee actions to address increased on-line and shutdown risk when equipment was out of service for maintenance, such as establishing compensatory actions, minimizing the duration of the activity, obtaining appropriate management approval, and informing appropriate plant staff, to verify that the actions were accomplished when on-line and shutdown risk was increased due to maintenance on risk-significant structures, systems, and components. The following specific assessments were reviewed:

- The maintenance risk assessment for work involving the inspection of the containment vessel cooling system air handling unit;
- The maintenance risk assessment for work involving the replacement and testing of the fire jockey pump and testing of the diesel and motor driven fire pumps;
- The maintenance risk assessment for work planned for the week beginning July 22, 2002. The work week included switchyard work, control complex chiller activities, and instrumentation and control surveillances;
- The maintenance risk assessment for work planned for the week beginning August 5, 2002. The work week included an increased risk profile due to switchyard work and planned maintenance on the diesel driven fire pump; and
- The shutdown risk assessment for the forced outage commenced September 22, 2002. Significant work activities included replacement of the recirculating pump 'A' seal package, modification of the scram discharge volume vent and drain valves, and work on the division 2 DG.

Finally, the inspectors reviewed CR 02-02614, "Resident Inspector Question Regarding Method of Posting Protected Trains," which was generated as a result of inspection activities.

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Nonroutine Plant Evolutions (71111.14)

a. Inspection Scope

- The inspectors observed licensee activities to test and establish hydrogen water chemistry throughout the month of August 2002. The inspectors attended crew briefs, reviewed implementing procedures, and observed pre-startup testing. Emphasis was placed on communications between project personnel and the control room as well as monitoring of plant response.
- The inspectors observed licensee response to a catastrophic failure of a diesel fire pump battery. During this failure, the battery ruptured and spilled acid in the diesel fire pump room. The inspectors observed licensee spill response, entry into off-normal instructions (ONIs), and establishment of protected trains. The inspectors reviewed the licensee's logs, response procedures, CRs and immediate corrective actions.
- The inspectors observed mechanic and operator performance during adjustment of CRD speeds during the week ending September 7, 2002. The inspectors observed crew briefs, reviewed implementing procedures, and observed the speed adjustment process both at the hydraulic control units and in the control room.
- The inspectors reviewed licensee activities associated with the annual biocide treatment for zebra mussel control conducted in September 2002. The inspectors reviewed licensee heat exchanger flow verification data periodically throughout the monitoring period and reviewed the direct effect of the biocide treatment on the mussel population by observing monitoring boxes.
- The inspectors observed activities associated with the forced outage which began on September 22, 2002. The inspectors assessed the adequacy of operations activities during the plant cool down and the establishment of plant conditions for the replacement of the recirculating water pump 'A' seal package. Additionally, the inspectors observed outage planning meetings, restart readiness meetings, other general outage activities, including shutdown safety assessments. Finally, the inspectors conducted a drywell closure tour.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors selected CRs related to potential operability issues for risk significant components and systems. These CRs were evaluated to determine whether the operability of the components and systems was justified. The inspectors compared the operability and design criteria in the appropriate sections of the TSs and Updated Safety Analysis Report (USAR) to the licensee's evaluations to verify that the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors verified that the measures were in place, would work as intended, and were properly controlled. Additionally, the inspectors verified, where appropriate, compliance with bounding limitations associated with the evaluations. The inspectors reviewed:

- the licensee's evaluation of the affect of an identified hole in a 3/8" post- accident sampling line on secondary containment operability;
- the licensee's evaluation of the affect of improper testing of MSIV closure times on MSIV operability;
- the licensee's evaluation of failure to perform complete inspections of ESW inlet and discharge tunnels;
- the licensee's evaluation of the cause and effect of high oil level in the RCIC turbine;
- the licensee's evaluation of the performance of the incorrect surveillance of the automatic depressurization system (ADS) manual inhibit function on ADS operability;
- the licensee's evaluation of Division 2 DG jacking gear engaged alarm; and
- the licensee's evaluation of high pressure core spray (HPCS) operability following HPCS flow anomaly and ESW water leg anomaly.

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds (OWAs) (7111.16)

a. Inspection Scope

The inspectors evaluated the overall effectiveness of the licensee operator workaround (OWA) program. The inspectors observed log readings and equipment manipulations made by selected operators to assess the overall effect of OWAs. The inspectors reviewed the licensee CRs in order to determine if issues identified in the corrective action program were also reviewed as part of and captured in the licensee's OWA program. Any actions which indicated a potential problem that could increase initiating event frequencies, impact multiple mitigating systems, or affect the ability to respond to plant transients and accidents were considered as possible OWAs. Additionally, the inspectors discussed the effect of active OWAs with operators.

Additionally, the inspectors reviewed selected OWAs to determine if the OWAs adversely affected the operator's ability to respond to an initiating event. OWAs reviewed were:

- Loss of heat balance updates; and
- Incorrect readings on reactor pressure vessel (RPV) level channel C

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications

a. Inspection Scope

The inspectors reviewed portions of the design and installation of the hydrogen water chemistry modification. The inspectors reviewed associated safety evaluations and design criteria to evaluate impact of the modification on the design basis, licensing basis and interfacing systems. The inspection included physical observation of installed components and discussions with key project personnel.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors evaluated the following post-maintenance testing activities for risk significant systems to assess the following (as applicable): the effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed; acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate; tests were performed as written; and equipment was returned to its operational status following testing. The inspectors evaluated the activities against TS, the USAR, 10 CFR Part 50 requirements, licensee procedures, and various USNRC generic communications. In addition, the inspectors reviewed CRs associated with post-maintenance testing to determine if the licensee was identifying problems and entering them in the corrective action program. The specific procedures and CRs reviewed are listed in the attached List of Documents Reviewed. The following post-maintenance activities were reviewed:

- S-610 Generator Output Breaker;
- C71 Agastat Relay Replacement;
- Upper air lock outer door seal;
- Leak on Hydraulic Power Unit;
- Nuclear Closed Cooling Valve maintenance and testing;
- Standby Liquid Control Pump A;
- Diesel Fire Pump Battery Replacement; and
- 3D-Monicores Control Blade History Dynamic Arrays Update.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed surveillance testing or reviewed test data for risk-significant systems or components to assess compliance with TS, 10 CFR Part 50 Appendix B, and licensee procedure requirements. The testing was also evaluated for consistency with the USAR. The inspectors verified that the testing demonstrated that the systems were ready to perform their intended safety functions. The inspectors reviewed whether test control was properly coordinated with the control room and performed in the sequence specified in the surveillance instruction (SVI), and if test equipment was properly calibrated and installed to support the surveillance tests. The procedures reviewed are listed in the attached List of Documents Reviewed. The specific surveillance activities assessed included:

- Division 1 Emergency DG Monthly Surveillance Test;
- RCIC System Quarterly Surveillance/Trip Throttle Valve Operability Verification;
- RHR A Pump and Valve Operability Test; and
- RPV Low Level 1 and 2 Channel C Calibration for 1B21-N081C

b. Findings

The inspectors identified a Green finding after the licensee failed to identify improperly reading plant indications and inform operators of the deficiency following partial completion of a surveillance. This finding identifies a Non-Cited Violation of Technical Specification 5.4 for failing to follow procedures for equipment control.

On August 29, the inspectors observed licensee performance of a biannual calibration of RPV low level 1 and 2 Channel C, conducted in accordance with procedure SVI-B21T0062C, "RPV Low Level 1&2 Channel C Calibration for 1B21-N081C," as required by TS 3.3.6.1. During the performance of the surveillance, the technicians obtained unexpected results in the response of a programmable logic controller. The technicians suspected that the battery used in their test equipment lacked charge. After obtaining approval of the Unit Supervisor, the technicians replaced the battery and reperformed the steps with identical results. The technicians informed the Unit Supervisor that they still suspected a test equipment problem. The Unit Supervisor confirmed that TS-related data was satisfactory, then directed the technicians to restore the system per the procedure. The inspectors subsequently reviewed the data collected during performance of the SVI and observed that several data points related to the RPV level channel C digital display and chart recorder were outside the leave-as-is zone. The inspectors provided the results to the responsible system engineer (RSE) who, after review, stated that the system likely had a problem with an optical isolator or power supply. The RSE also stated the hypothesized problems would not affect the Technical Specifications required functions of the system. Instrumentation and control supervision agreed that measuring and test equipment problems did not fully explain the results.

The inspectors also spoke with the Shift Manager regarding treatment of the indicators that were outside the leave-as-is zone and the Shift Manager agreed to investigate. The following day, the Shift Manager applied tags to the chart recorder and digital display to alert operators that the readings were not correct. Subsequent troubleshooting identified that a power supply for the loop had failed.

The performance deficiency associated with this finding is failure to follow procedures for informing operators of instrumentation in the control room which may not read correctly. TS 5.4 requires implementation of procedures required by Regulatory Guide 1.33. Regulatory Guide 1.33 requires procedures for equipment control. One of the procedures governing equipment control, PAP-1404, "Miscellaneous Tagging," requires that Not-In-Service Stickers be used to inform operators when instrumentation in the control room may not read correctly. Contrary to this requirement, the operators did not label this equipment until the inspectors inquired about control of the indications outside the leave-as-is zone. This issue is more than minor because the inspectors concluded, that if left uncorrected, it would become a more significant safety concern. In this instance, surveillance revealed an equipment fault existed, licensee personnel failed to recognize the fault, and the affected indications were not identified to operators until the inspectors questioned the surveillance data. The operators failed to recognize that the partially completed surveillance contained discrepant data and under other circumstances, the discrepant data could have indicated inoperability of mitigating systems. Further, the indication in question could have been used for control of RPV level despite its improper indication. The finding is of very low safety significance (Green) since the indicators in question have no direct control functions and redundant indicators were available.

The licensee entered this finding into the corrective action program (CR 02-03355). Because of the very low safety significance and because the issue has been entered into the licensee's corrective action program, it is being treated as a NCV, consistent with Section VI.A.1 of the USNRC Enforcement Policy (**NCV 50-440/02-06-02**).

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed the control of a temporary modification to jumper around a low level switch to permit manual operation of the drywell equipment drain sump. The inspection included review of the temporary modification package, interviews with operators and walkdown of the radiological waste control room. The inspectors verified completion of a 50.59 screen and compared the temporary configuration with USAR requirements.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

The inspectors observed the technical support center and the operations support center during an emergency preparedness drill conducted on September 12, 2002. The inspection focused on the ability of the licensee to appropriately classify emergency conditions, complete timely notifications, and implement appropriate protective action recommendations in accordance with approved procedures.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control (71121.01)

.1 Plant Walkdowns, Radiological Boundary Verifications, and Radiation Work Permit Reviews

a. Inspection Scope

The inspectors conducted walkdowns of the radiologically restricted area to verify the adequacy of radiological boundaries and postings. Specifically, the inspectors walked down several high and locked high radiation area boundaries in the Auxiliary, Radwaste, and Containment Buildings. Confirmatory radiation measurements were taken to verify that these areas and selected radiation areas were properly posted and controlled in accordance with 10 CFR Part 20, licensee procedures and Technical Specifications. Radiation Work Permit 020053 was reviewed and the pre-job briefing was attended to verify that protective clothing requirements, electronic dosimetry alarm set points for both dose rate and accumulated dose were adequate based on radiological conditions.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety

2PS1 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems (71122.01)

.1 Offsite Dose Calculation Manual (ODCM)

a. Inspection Scope

The inspectors reviewed the Annual Environmental and Effluent Release Report for the year 2001 to verify that the radiological effluent program was implemented as described in the Updated Safety Analysis Report (USAR) and the Offsite Dose Calculation Manual (ODCM), and to ensure that any anomalies in the release data were adequately understood by the licensee. The inspectors reviewed changes made by the licensee to the ODCM as well as to the liquid and gaseous radioactive waste processing system design, procedures, or operation since the last inspection to verify that changes were documented in accordance with the requirements of the ODCM and the Technical Specifications.

b. Findings

No findings of significance were identified.

.2 Gaseous and Liquid Release Systems Walkdowns

a. Inspection Scope

The inspectors performed walkdowns of the major components of the gaseous and liquid release systems to verify that the current system configuration was as described in the USAR and the ODCM, and to observe ongoing activities and equipment material condition. This included radiation and flow monitors, demineralizers and filtration systems, compressors, tanks, and vessels. The inspectors also discussed the waste processing system operations and components with the cognizant system engineer to assess its overall operation.

b. Findings

No findings of significance were identified.

.3 Gaseous and Liquid Effluent Releases

a. Inspection Scope

The inspectors reviewed liquid and gaseous radioactive waste release records including radiochemical measurements to verify that appropriate treatment equipment was used, that the radwaste effluents were processed and released in accordance with the ODCM, and that releases met the 10 CFR Part 20 requirements. The inspectors also observed the collection and preparation for analysis of a liquid radwaste sample to verify that the sampling and analysis processes were in compliance with station procedures.

b. Findings

No findings of significance were identified.

.4 Dose Calculations

a. Inspection Scope

The inspectors reviewed selected individual batch release records for the years 2001 and 2002, along with the Annual Environmental and Effluent Release Report for the year 2001, to ensure that the licensee had properly determined the offsite dose to the public from radiological effluent releases, and to determine if any annual Technical Specification or ODCM (i.e., Appendix I to 10 CFR Part 50 values) limits were exceeded. Additionally, the licensee's current dose assessment software verification test was reviewed.

b. Findings

No findings of significance were identified.

.5 Air Cleaning Systems

a. Inspection Scope

The inspectors reviewed air cleaning system surveillance test results for the annulus exhaust gas treatment systems including activated carbon testing by a vendor laboratory to ensure that test results were within the licensee's acceptance criteria. The inspectors reviewed surveillance test results for the gaseous release systems to verify that the flow rates were consistent with USAR values.

b. Findings

No findings of significance were identified.

.6 Effluent Monitor Calibrations

a. Inspection Scope

The inspectors reviewed calibration records of liquid and gaseous point of discharge effluent radiation monitors to verify that instrument calibrations were within the required calibration frequency. The inspectors also reviewed the current effluent radiation monitor alarm setpoint values for agreement with station requirements.

b. Findings

No findings of significance were identified.

.7 Counting Room Instrument Calibrations and Quality Control

a. Inspection Scope

The inspectors reviewed the quality control records for radiochemistry instrumentation used to identify and quantitate radioisotopes in effluents, in order to verify that the instrumentation was calibrated and maintained as required by station procedures. This review included calibrations of gamma spectroscopy/spectrometry systems, liquid scintillation instruments, and associated instrument control charts.

b. Findings

No findings of significance were identified.

.8 Interlaboratory Comparison Program

a. Inspection Scope

The inspectors reviewed selected data from the Interlaboratory Comparison Program along with the radiochemistry quality control program (Section .7) in order to evaluate the licensee's capability to perform radiochemical measurements, and to assess the quality of radioactive effluent sample analyses performed by the licensee. The inspectors reviewed the licensee's quality assurance evaluation of the Interlaboratory Comparison Program and associated corrective actions for any deficiencies identified.

b. Findings

No findings of significance were identified.

.9 Identification and Resolution of Problems

a. Inspection Scope

The inspectors reviewed audits, self-assessments, and condition reports generated in 2001 and 2002 to evaluate the effectiveness of the licensee's self-assessment process in the identification, characterization, and prioritization of problems, and to verify that previous radiological instrumentation and effluent related issues were adequately addressed. Condition reports that addressed radioactive treatment and monitoring program deficiencies were also reviewed to verify that the licensee had effectively implemented the corrective action program.

b. Findings

No findings of significance were identified.

3. SAFEGUARDS

Cornerstone: Physical Protection

3PP1 Response to Contingency Events (71130.03)

The Office of Homeland Security developed a Homeland Security Advisory System (HSAS) to disseminate information regarding the risk of terrorist attacks. The HSAS implements five color-coded threat conditions with a description of corresponding actions at each level. USNRC Regulatory Information Summary (RIS) 2002-12a, dated August 19, 2002, "USNRC Threat Advisory and Protective Measures System," discusses the HSAS and provides additional information on protective measures to licensees.

a. Inspection Scope

On September 10, 2002, the USNRC issued a Safeguards Advisory to reactor licensees to implement the protective measures described in RIS 2002-12a in response to the Federal government declaration of threat level "Orange."

The inspector interviewed licensee personnel and security staff, observed the conduct of security operations, and assessed licensee implementation of the protective measures. Inspection results were communicated to the region and headquarters security staff for further evaluation.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES (OA)

4OA1 Performance Indicator (PI) Verification (71151)

Cornerstones: Initiating Events and Mitigating Systems

.1 Initiating Events and Mitigating Systems PI Verification

a. Inspection Scope

The inspectors reviewed reported second quarter 2002 data for Unplanned Power Changes and Heat Removal System Unavailability PIs using the definitions and guidance contained in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Indicator Guideline," Revision 2. The inspectors reviewed station logs, CRs, TS logs, and surveillance procedures to verify the accuracy of the licensee's data submission.

b. Findings

No findings of significance were identified.

.2 Safety System Unavailability Issue

(Closed) URI 50-440/02-02-01: Safety System Unavailability Hours During Surveillance Testing.

The inspectors determined that the licensee's use of managed restoration instructions during safety system surveillance testing was not consistent with the guidance provided in NEI 99-02. The licensee entered the issue in their corrective action program as CR 02-0946. The licensee reviewed affected testing procedures, recalculated, and resubmitted data to the USNRC. 10 CFR Part 50.9 requires, in part, that information provided to the Commission by a licensee shall be complete and accurate in all material respects. Although the submitted PI data for safety system unavailability was inaccurate, the inspectors concluded that the Green to White PI threshold was not crossed and thus the USNRC's regulatory response was not affected. As such, the issue was determined to be a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the USNRC's Enforcement Policy.

4OA2 Identification and Resolution of Problems (71152)

.1 Routine Review of Identification and Resolution of Problems

a. Inspection Scope

As discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that they were being entered into the licensee's corrective action system at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. Minor issues entered into the licensee's corrective action system as a result of inspector's observations are generally denoted in the report.

b. Findings

No findings of significance were identified.

.2 Corrective Action Following a Fire in Containment

a. Inspection Scope

In January of 2002, a temporary power cable in containment caught fire. During the subsequent investigations, the inspectors identified inadequate separation between power cables as well as inadequate requirements for testing of heat detectors. This inspection reviewed the licensee's corrective actions for these issues. The inspectors reviewed the fire protection program to evaluate the effectiveness of corrective actions to capture applicable requirements for surveillances on fire protection systems. In addition, the inspectors performed walk downs of the facility to evaluate effectiveness of corrective actions related to maintenance of electrical separation requirements for temporary power cords.

The inspectors reviewed the license for the facility to determine applicable codes of records for the fire protection program. After obtaining the applicable codes, the inspectors compared code requirements to the programmatic requirements of the licensee's fire protection program.

b. Issues

During comparison of code requirements with the licensee's program, the inspectors identified that the licensee had not included lubrication of outside stem and yoke valves in their inspection program. The licensee has entered this condition into their corrective action program (CR 02-02633). Similar observations were documented in other condition reports; therefore, the licensee initiated a separate condition report to review compliance with National Fire Protection Association testing requirements. The inspectors concluded that each of these conditions was minor in nature.

4OA3 Event Followup (71153)

a. Inspection Scope

The inspectors responded to the site to observe operator actions and plant conditions following an automatic scram from 90 percent power early in the morning of September 22, 2002. The scram occurred during a routine weekly test of the turbine overspeed protection trip devices. The inspectors followed up on the event by interviewing licensee personnel, reviewing plant logs, chart recorders, sequence of event recorders, and other documents. The inspectors also walked down the control panels and discussed the timeline of the event with licensee personnel.

b. Findings

No findings of significance were identified.

4OA6 Meetings

.1 Exit Meeting

The inspectors presented the inspection results to Mr. T. Rausch, General Manager and other members of licensee management at the conclusion of the inspection on October 10, 2002. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

.2 Interim Exit Meetings

An interim exit was conducted for:

- Radiological Effluents and Access Control inspection with Mr. K. Ostrowski on July 11, 2002.

4OA7 Licensee-Identified Violations

The following violation of very low safety significance (Green) was identified by the licensee and was a violation of USNRC requirements which met the criteria of Section VI of the USNRC Enforcement Policy, NUREG-1600, for being dispositioned as NCVs.

Cornerstone: Mitigating Systems

Surveillance requirement of TS 3.6.1.3.7 requires verification of MSIV isolation time at a frequency in accordance with the inservice testing program. The procedure used to fulfill this surveillance requirement was not adequate since it failed to measure full closure time. Instead, the surveillance measured closure time from control switch actuation to closed indication, which occurs with the valve 10 percent open. The licensee documented the improper testing methodology in CR-02-02176. Because the closure times of all MSIVs met surveillance requirements following analysis or retest, thus establishing operability, this violation was of very low safety significance.

KEY POINTS OF CONTACT

Licensee

W. Kanda, Vice President-Nuclear
D. Bowen, Licensing
G. Dunn, Manager, Regulatory Affairs
R. Coad, Radiation Protection Manager
R. Hayes, Chemistry Manager
T. Lentz, Acting Director Nuclear Engineering
L. Lindrose, Supervisor Nuclear Security Operations
B. Luthanen, Compliance Engineer
T. Mahon, Site Protection Section Manager
K. Meade, Supervisor, Compliance
K. Ostrowski, Director, Nuclear Maintenance
J. Palinkas, Supervisor, Security Systems and Administration
D. Phillips, Manager, Plant Engineering
T. Rausch, General Manager, Nuclear Power Plant Department
S. Sovizal, Supervisor, Security Training
R. Strohl, Superintendent, Plant Operations

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-440/02-06-01	NCV	Failure to Demonstrate Effective Maintenance for the Rod Control and Information System
50-440/02-06-02	NCV	Failure to Follow Procedures for Improperly Functioning Control Room Indications

Closed

50-440/02-02-01	URI	Safety System Unavailability Hours During Surveillance Testing
50-440/02-06-01	NCV	Failure to Demonstrate Effective Maintenance for the Rod Control and Information System
50-440/02-06-02	NCV	Failure to Follow Procedures for Improperly Functioning Control Room Indications

LIST OF ACRONYMS USED

ADS	Automatic Depressurization System
CFR	Code of Federal Regulations
CR	Condition Report
CRD	Control Rod Drive
DG	Diesel Generator
ESW	Emergency Service Water
FENOC	FirstEnergy Nuclear Operating Company
HSAS	Homeland Security Advisory System
HPCS	High Pressure Core Spray
M&TE	Measuring and Test Equipment
MSIV	Main Steam Isolation Valve
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
USNRC	U.S. Nuclear Regulatory Commission
OA	Other Activities
ODCM	Offsite Dose Calculation Manual
OHS	Office of Homeland Security
ONI	Off-Normal Instruction
OWA	Operator Workaround
PEI	Perry Emergency Instruction
PI	Performance Indicator
RCIC	Reactor Core Isolation Cooling
RCIS	Rod Control Indicating System
RHR	Residual Heat Removal
RIS	Regulatory Issue Summary
RPV	Reactor Pressure Vessel
RSE	Responsible System Engineer
SDP	Significance Determination Process
SSC	Structure, System & Component
SVI	Surveillance Instruction
TS	Technical Specifications
URI	Unresolved Item
USAR	Updated Safety Analysis Report
VLI	Valve Lineup Instruction

LIST OF DOCUMENTS REVIEWED

1R01 Adverse Weather

IOI-15	Seasonal Variation	November 10, 1995
OAI-0201	Operations Standing Instruction	July 2, 2002
Desk Guide 09	Seasonal Work Scheduling Desk Guide	Undated

1R04 Equipment Alignment

PTI-P54-P0033	Fire Suppression Systems Valve Position	Revision 5
Drawing D-914-001	Fire Service Yard Area	Revision LL
VLI-E12	Residual Heat Removal System	Revision 4
Drawing D-302-641	Residual Heat Removal System	Revision S
Drawing D-302-642	Residual Heat Removal System	Revision N
Drawing D-302-643	Residual Heat Removal System	Revision S
	Perry Nuclear Engineering Department System Health Report, Second Quarter 2002	Undated
CR 01-2880	SVI-E12-T2002	July 25, 2001
CR 01-2916	RHR A Pump Seal Leakage Has Increased Significantly Since RF08	July 29, 2001
CR 01-3296	"A" RHR Pump Seal Replacement Exceeds Dose Estimate	September 12, 2001
CR 01-3300	Evaluate RHR A Seal Replacement	September 12, 2001
CR 01-3648	As Found MOV Test Results for 1E12F0048B Did Not Meet FTI-F0016 Criteria	October 15, 2001
CR 02-00863	Accumulation of Trash and Debris Under Grating in RHR A Pump Room	March 24, 2002
CR 02-01568	Broken Pin on Limitorque Actuator	May 20, 2002
CR 02-01721	Low Margin of RHR A Motor Operated Valve	May 23, 2002
CR 02-01956	RHR System Venting	June 20, 2002
SOI-E12	System Operating Instruction Residual Heat Removal System	July 18, 2002

1R05 Fire Protection

Drawing E-023-005	Fire Protection Evaluation - Unit 1 Auxiliary and Reactor Buildings Plan - El. 599'-9"	March, 1991
Drawing E-023-010	Fire Protection Evaluation - Unit 1 Auxiliary and Reactor Buildings Plan - El. 620'-6"	September, 2001

Drawing E-023-014	Fire Protection Evaluation - Unit 1 Reactor Building and Auxiliary Roof Plan - El. 642'-6"	March, 1991
Drawing E-023-018	Fire Protection Evaluation - Unit 1 Reactor Building Plan - El. 654'-0"	March, 1991
Drawing E-023-022	Fire Protection Evaluation - Units 1 and 2 Reactor Building Plan - El. 664'-7"	March, 1991
Drawing E-023-019	Fire Protection Evaluation - Units 1 and 2 Control Complex Plan - Elevations 654'-6", 679'-6"	March, 1992
Drawing E-023-011	Fire Protection Evaluation - Units 1 and 2 Control Complex and Diesel Generator Building Plan - El. 620'-6"	September, 2001
USAR Section 9A.4.1.1.2	Fire Area 1RB-1b	
USAR Section 9A.4.4.6	Fire Areas, Floor 6	
USAR Section 9A.4.5.1.1	Fire Area 1DG-1a	
USAR Section 9A.4.7.4	Fire Zone FH-3	
USAR Section 9A.4.12	Heater Bay	

1R06 Flood Protection Measures

	Memo Jim Staffiera to Ken Russell Subj: Potential Reportability Issue Review Inadvertent Placement of Jersey Barriers in Swale Area	August 1, 2002
CR 02-02332	Jersey Barrier Installation Without Proper Design Consideration	July 16, 2002
USAR 2.4	Hydrologic Engineering	
CR 02-0586	Latent Issues, ESW Flow Out to the Swale	February 26, 2002

1R07 Heat Sink Performance

R46-22	Div-1 DG Heat Exchanger performance Test Evaluation	October 13, 1999
PTI-R46-P0001-A	Div. 1 Diesel Generator Jacket Water Heat Exchanger Performance	November 29, 1994
	Div. 1 DG JWHX U and UcorrTrend vs Months	
	Div. 2 DG JWHX U and UcorrTrend vs Months	

	Div. 3 DG JWHX U and UcorrTrend vs Months	
SDM R46	Standby Diesel Generator Jacket Water Cooling System	September 6, 1994
SDM P45	Emergency Service Water	October 18, 2002
	Perry Nuclear Power Plant System Health Report	Second Quarter 2002
<u>1R11 Licensed Operator Requalification</u>		
	USNRC 2002 Exam Due Dates for Crew/Staff/Certs	August 5, 2002
<u>1R12 Maintenance Effectiveness</u>		
CR 02-02461	Maintenance Rule Classification of Rod Control and Information System	July 25, 2002
	Operations Logs	1 January 2002-31 March 2002
PEI-SPI 1.3	Manual Rod Insertion	Rev. 0
PEI-SPI-1.6	Increased Cooling Water DP	Rev. 0
	RCI&IS Transponder Card Failures Chart	
	Terry Husted e-mail subj: Re: BWR6 RC&IS User's Meeting	July 30, 2002
	Maintenance Rule: Maintenance Rule Functions River Bend	August 7, 2002
	Maintenance Rule Functions, Performance Criteria and Classifications- Perry	Rev. 5.04
	PNPP System Health Report	First Quarter 2002
	PNPP System Health Report	Second Quarter 2002
PEI-B13	Reactor Pressure Vessel Control	Rev. H
PEI-T23	Containment Control	Rev. F
CR 02-03232	RFA on Maintenance Rule For Fire Protection	September 12, 2002
CR 02-03555	Maintenance Rule Violation on Monitoring Rod Control & Information System	September 19, 2002
USAR	Chapter 15, Accident Analysis	
<u>1R13 Maintenance Risk Assessments and Emergent Work Control</u>		

	Week 11, Period 6 Forecast Risk Profile	July 22, 2002
	Week 1, Period 7 Forecast Risk Profile	August 5, 2002
	Shutdown Safety Assessment	September 26, 2002
CR 02-02614	Resident Inspector Question Regarding Method of Posting Protected Trains	August 5, 2002

1R14 Personnel Performance During Non-routine Plant Evolutions

CR 02-02466	Incorrect Breaker Operated During F1A Ground Isolation	
WO 02-008007-00	480V Load Center Unit Substation F-1-A	July 24, 2002
SDM R23/24/25	480V AC Distribution	
TXI-0289	Hydrogen Water Chemistry System - System Startup and Tuning	Revision 1
CR 02-02875	Diesel Fire Pump Battery Failure	August 22, 2002
CR 02-02888	Jockey Fire Pump Local Disconnect Found in Off	August 22, 2002
	Control Room Logs	August 22, 2002
ONI-ZZZ-5	Spills and Unauthorized Discharges	September 17, 2001
PAP-1910	Fire Protection Program	June 3, 2002
IOI-4	Shutdown	Rev. 6
IOI-5	Maintaining Hot Standby or Hot Shutdown	Rev. 4
IOI-7	Cooldown Following a Reactor Scram Main Condenser Available	Rev. 5
IOI-12	Maintain Cold Shutdown	Rev. 3
PTI-GEN-P0023	Zebra Mussel Monitoring	Rev. 1
PTI-GEN-P0024	Zebra Mussel Treatment	Rev. 3
PTI-C11-P0010	Control Rod Speed Adjustment	Rev. 2

1R15 Operability Evaluations

CR 02-01687	Hole in P87 Sample Line Discovered During Heat Trace Work	May 30, 2002
USAR Section 6.2.3	Secondary Containment Functional Design	
TS 3.6.4.1	Secondary Containment	
CR-02-01985	Intake/Discharge Tunnel Inspection Frequency Concerns	June 20, 2002

USAR Section 3.8.4	Other Seismic Category 1 Structures	
TS 3.7.1	Emergency Service Water System-Divisions 1 and 2	
TS 3.7.2	Emergency Service Water System-Division 3	
CR 02-02176	OE14030 Review Identifies Potential Non-conservative MSIV Testing for USAR Data	July 2, 2002
USAR 15.6.4	Steam System Piping Break Outside Containment	
USAR 15.2.4	MSIV Closure	
TS 3.6.1.3	Primary Containment Isolation Valves	
CR 02-02294	RCIC Turbine Oil Level is Increasing	July 10, 2002
CR 02-02347	SVI-B21-T5379A Does Not Have the Latest Version of This Document in Curator	July 17, 2002
SVI-B21-T5379A	ECCS/ADS Division 1 Manual Inhibit Functional Test	Revision 1
CR-02404	Division 2 D/G Jacking Device Engaged Alarm	July 21, 2002
LCO 3.8.1	AC Sources-Operating	
SDM R43	Standby Diesel Generator System	Rev. 11
SDM R44	Standby Diesel Generator Starting Air	Rev. 6
LCO 3.5.1	Emergency Core Cooling Systems (ECCS)-Operating	
LCO 3.3.5.1	Emergency Core Cooling System Instrumentation	
CR 02-02572	HPCS Pump Flow Indication Trending Up With HPCS Not Running With SPCU in SER	August 2, 2002
CR-01903	HPCS Flow Instrument Reading Incorrectly	June 16, 2002
SDM-E22A	High Pressure Core Spray	Rev. 7
<u>1R16 Operator Workarounds (OWAs)</u>		
M&C.-14	Work Around Policy	February 15, 2000
WO 01-10786	Troubleshoot Low Flow Condition Perform Flow Balance	August 21, 2000
ECP 01-5033	Site Storm/Runoff Drain System	August 21, 2000
WO 01-16444	Drywell Equipment Drain Sump Low Level Cutoff Switch	November 11, 2001

CR 02-02257	Division 1 DG Jacket Water Heater did not Turn Off Prior to High Alarm	July 9, 2002
LCO 3.2	Power Distribution Limits	
PAP-1404	Miscellaneous Tagging	Rev. 3
CR 02-03000	Heat Balance Stopped Updating	August 30, 2002

1R17 Permanent Plant Modifications

DCP 98-0003A	PNPP Hydrogen Water Chemistry	March 24, 1999
PNPP 100076	Reinstate Wires Inadvertently Removed in the Original 98003A Design Change Package	August 26, 1999
EPRI NP-5283-SR	Guidelines for Permanent BWR Hydrogen Water Chemistry Installations	1987
SER	Safety Evaluation Report Guidelines for Permanent BWR Hydrogen Water Chemistry Installations	July 1987
USAR 2.2	Nearby Industrial, Transportation and Military Facilities	
USAR 6.1.1	Metallic Materials	

1R19 Post-Maintenance Testing

WO 02-004736-000	Replace Normally Energized Agastat Relays 1C71A-k015D and 1C71A-K043D	June 22, 2002
SVI-C71-T0051	Reactor Protection System Manual Scram Channel Functional	April 27, 1988
SDM R10	System Description Manual, Plant Electrical System	July 7, 1995
USAR 3.6.1.2	Primary Containment Airlocks	
SDM T23/P53	Reactor Containment System	Rev. 8
WO 01-015735-000	Upper Containment Airlock Pneumatic System Leak Test	August 1, 2002
SVI-P53-T6312	Upper Primary Containment Air Lock (Penetration P312), In Between The Seals Test	August 1, 2002
USAR 3.4.2	Flow Control Valves	
SDM B33	Reactor Recirculation and Recirculation Flow Control System	
WO 02-008237-000	Hydraulic Power Unit, Reactor Recirc Valve Flow Control	July 31, 2002

SVI-C41-T2001A	Standby Liquid Control A Pump and Valve Operability Test	Revision 0
WO 01-016528	Rework Loose Coupling Bearings	November 20, 2001
WO 02-006899	Diesel Fire Pump Battery	August 25, 2002
WO 02-006272	Diesel Fire Pump Battery	August 25, 2002
PTI-P54-P0027	Diesel Fire Pump Battery Specific Gravity Check	August 25, 2002
CR 02-02888	Jockey Fire Pump Local Disconnect Found In Off	August 22, 2002
CR 02-02875	Diesel Fire Pump Battery Failure	August 22, 2002
PAP 1910	Fire Protection Program	Rev. 5
USAR 9.5.1	Fire Protection System	
USAR App 9A	Fire Hazards Analysis	

1R22 Surveillance Testing

SVI-E51-T2001	RCIC Pump Quarterly Operability Test	July 18, 2002
CR 02-01789	Request for Assistance on RCIC Trip Valve Operation	June 06, 2002
CR 02-01363	Cumulative Significance Evaluation of RCIC Performance	July 13, 2002
CR 02-02368	Small Steam Leak at 1E51F0514	July 20, 2002
CR 02-01359	Sludge Found in RCIC Return Line Behind Cover Plate	May 19, 2002
WO 02-007016	Verify Operation of the RCIC Turbine Overspeed Linkage	July 17, 2002
SVI-E12-T2001	RHR A Pump and Valve Operability Test	Revision 10
CR 02-02730	Questionable Pump Suction Pressure Reading During SVI-E12-T2001	August 13, 2002
CR 02-02725	Valves 1E12R008A-D and 1E12R008A-E Were Mispositioned During SVI-E12-T2001	August 13, 2002
CR 02-03021	SVI-B21-T0062C Terminated Due to Suspected Problems with M&TE	August 29, 2002
LCO 3.10	Special Operations	
LCO 3.3.6	Primary Containment and Drywell Isolation Instrumentation	
SVI-B21T0062C	RPV Low Level 1&2 Channel C Calibration for 1B21-N081C	August 29, 2002

PAP-0205	Operability of Plant Systems	Rev. 10
TMP-2005	Instrumentation and Control Technician Training, Qualification, and Certification Programs	Rev. 6
TMG-1007	Implementation of Training	Rev. 5
	Online Training/Tracking Qualification Matrix	September 5, 2002
PAP-1404	Miscellaneous Tagging	Rev. 3
OJT-5000	Indoctrination	Rev. 2
PY20021095	3DMonicores Software Test	September 11, 2002
LRC02.055	Ltr Global Nuclear Fuel to Patrick Curran "Perry Cycle 9 3DMonicores Control Blade History (CBH) Dynamic Arrays update	September 12, 2002

1R23 Temporary Modification Control

USAR 11.2	Liquid Waste Management Systems	
TM 1-01-008	TM Tag Order	November 11, 2001

2OS1 Access Control To Radiological Areas

020053	Radiation Work Permit: Valve 1G33F0503	Revision 0
	ALARA Briefing Checklist for RWP 020053	July 9, 2002

2PS2 Radiological Effluents

01-004394-000	LRW To ESW Radiation Monitor Channel Functional For D17-K606 Surveillance	April 22, 2002
99-010218-000	Unit 2 Vent Noble Gas Rad Monitor Calibration D17-T8037	October 29, 2001
01-004146-000	Unit 1 Vent Noble Gas Rad Monitor Calibration D17-T8031	March 5, 2002
01-004391-000	Unit 2 Plant Vent Effluent System and Sampler Flow Rate Monitor Calibration	April 24, 2002
01-004539-000	Unit 1 Plant Vent Effluent System and Sampler Flow Rate Monitor Calibration	June 24, 2002
02-003062-000	Annulus Exhaust Gas Treatment System (B) Charcoal Adsorber Operability Test and Plenum Inspection	July 3, 2002
	Nucon Certificate of Compliance: Iodine-131 Removal Efficiency Determination of Adsorbent Sample	June 24, 2002

02-003064-000	Annulus Exhaust Gas Treatment System (A) Charcoal Adsorber Operability Test and Plenum Inspection	June 27, 2002
	Nucon Certificate of Compliance: Iodine-131 Removal Efficiency Determination of Adsorbent Sample	May 31, 2002
SVI-M15-T1240-B	Annulus Exhaust Gas Treatment System Train B Flow and Filter Operability Test	June 27, 2002
	Annual Environmental and Effluent Release Report	March 2002
	Liquid Radwaste Discharge 01-010L	March 10, 2001
	Liquid Radwaste Discharge 01-028L	May 13, 2001
	Liquid Radwaste Discharge 01-030L	May 15, 2001
	Liquid Radwaste Discharge 02-010L	July 7, 2002
	Liquid Radwaste Discharge 01-056L	July 26, 2001
	Liquid Radwaste Discharge 01-039L	June 30, 2001
	Liquid Radwaste Discharge 01-012L	March 20, 2001
	Liquid Radwaste Discharge 01-043L	June 21, 2001
	Liquid Radwaste Discharge 01-013L	March 21, 2001
	Gaseous Effluent Dose Data	May 29, 2002
	Gaseous Effluent Dose Data	May 1, 2002
	Gaseous Effluent Dose Data	June 24, 2002
	Analytics Cross Check Data: First Quarter 2001	
	Analytics Cross Check Data: Third Quarter 2001	
	Analytics Cross Check Data: Third Quarter 2000	
	Gamma Spectroscopy Analysis Data: Floor Drain Sample Tank A	July 8, 2002
PA 01-09	Audit Report: Radiation Monitoring	November 20, 2001
02-01469	ESW Total Flow Monitor Operability	May 13, 2002
02-00579	0D17-K606 and 0D17-R170 ODCM Testing Requirements	February 26, 2002
02-00590	RFA Deficiencies Identified on 1D17C5019 During Quarterly Lube and Belt Check	February 25, 2002
02-00047	Off-Gas Post Treatment Radiation Monitors Hi/Low Flow Alarm	December 23, 2001

02-02134	Increased Dose Rates Around Septa Tube Box Area on T647	June 28, 2002
02-00246	Increase in Xe-138 Value in Off Gas Sample	January 23, 2002
02-00263	Vendor Supplied Computer Software Error	January 24, 2002
02-00421	Xe-133 Increased on Off-Gas Pretreatment Sample	February 9, 2002
02-00975	OM31A Carbon Sample Shipment Limitation Not Met Due to Delay in Sample Count	April 1, 2002
02-01810	An Error Precursor Noticed During The Performance of a LRW Discharge	June 8, 2002
02-01982	RFA Under plant Drain Radiation Monitors Above High Alarm Setpoint	June 21, 2002
02-02211	Incorrect Geometry Used For HP Gas Counting	July 4, 2002
02-02170	Request For Assistance For Engineering To Evaluate Setpoint Adjustment Met	July 2, 2002
02-01409	Tritium Values In Condensate have Exceeded Limit in REC-0104	May 6, 2002
02-00694	Drywell D17 Gas Channel Alert Still Locked In	March 9, 2002
CHI-0003	MIDAS Routine Release Calculation Verification	Revision 1
SVI-G50 T5266	Liquid Radwaste Release Permit	Revision 8
	Germanium Detectors #1 and #3 Calibration Data	January/February 2002
	Lower Limit of Detection Data for Liquid Effluents	

3PP1 Response to Contingency Events (71130.03)

RIS-2002-12a	USNRC Threat Advisory and Protective Measures System	August 19, 2002
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4OA1 Performance Indicator (PI) Verification

NEI 99-02	Regulatory Assessment Performance Indicator Guideline, Rev. 2	November 2001
Logs	Plant Narrative Logs	October 1, 2001 - June 30, 2002
Logs	Monthly Safety System Unavailability Logs	January, 2002- June, 2002

4OA2 Identification and Resolution of Problems

NFPA 13A	Inspection and Maintenance of Sprinkler Systems	1981
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NFPA 25	Standard for Inspection, Testing and Maintenance of Water Based Fire Protection Systems	1992
PAP-1910	Fire Protection Program	June 3, 2002
PY-NRR/CEI-0272L	Fire Protection Program FSAR/Technical Specification Changes for the Perry Nuclear Power Plant	November 29, 1985
PY-CEI/NRR-0393L	Perry Nuclear Power Plant Docket Nos. 50-440; 50-441 Fire Protection Program FSAR and Technical Specification Changes	November 15, 1985
CR 02-00240	Sensitivity Check of Smoke Detectors in Containment	January 23, 2002
CR 02-00243	RFA to Evaluate Duct Mounted Smoke Detector Testing Methodology	January 17, 2002
CR 02-00280	Procedural Guidance Required for Heat Detector Testing	January 29, 2002
CR 02-00288	RWCU HT. EXCHGR Room Fire Detection Capability	January 24, 2002
USAR 9.5.1	Fire Protection System	
CR-02-00069	Temporary Power Cable Separation Violation	January 8, 2002
CR-02-00057	Extension Cord Overheats Causing Smoke in Containment	January 7, 2002

4OA3 Event response

Scram No. 1-02-01	Post Scram Restart Report	September 26, 2002
	Problem Solving Plan Summary: Determine the Cause of the Main Turbine Trip Resulting in a Reactor Scram on 9/22/02- CR 02-3378	September 23, 2002
Data	Plant Computer Data	September 22, 2002
Logs	Plant Narrative Logs	September 22, 2002