July 29, 2002

Mr. William Kanda
Vice President - Nuclear
FirstEnergy Nuclear Operating Company
P. O. Box 97, A200
Perry, OH 44081

SUBJECT: PERRY NUCLEAR POWER PLANT
NRC INSPECTION REPORT 50-440/02-05

Dear Mr. Kanda:

On June 30, 2002, the NRC completed an inspection at your Perry Nuclear Power Plant. The enclosed report documents the inspection findings which were discussed on July 1, 2002, with you 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 three issues of very low safety significance (Green). Two of these issues were determined to involve violations of NRC requirements. However, because of their very low safety significance and because they were entered into your corrective action program, the NRC is treating these issues as Non-Cited Violations in accordance with Section VI.A.1 of the NRC' s Enforcement Policy. If you deny these Non-Cited Violations, you should provide a response with a basis for your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Perry Nuclear Power Plant.

The NRC has increased security requirements at Perry in response to terrorist acts on September 11, 2001. Although the NRC is not aware of any specific threat against nuclear facilities, the NRC issued an Order and several threat advisories to commercial power reactors to strengthen licensees' capabilities and readiness to respond to a potential attack. The NRC continues to monitor overall security controls and will issue temporary instructions in the near future to verify by inspection the licensee's compliance with the Order and current security regulations.

In accordance with 10 CFR 2.790 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/NRC/ADAMS/index.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Christine A. Lipa, Chief
Branch 4
Division of Reactor Projects

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

Enclosure: Inspection Report 50-440/02-05

cc w/encl: B. Saunders, President - FENOC
K. Ostrowski, Director, Nuclear
Maintenance Department
G. Dunn, Manager, Regulatory Affairs
B. Coad, Director, Nuclear
Services Department
T. Lentz, Director, Nuclear
Engineering Department
T. Rausch, General Manager,
Nuclear Power Plant Department
Public Utilities Commission of Ohio
Ohio State Liaison Officer
R. Owen, Ohio Department of Health

DOCUMENT NAME: G:\PERR\Per 2002-05 drp.wpd

To receive a copy of this document, indicate in the box: "**C**" = Copy without attachment/enclosure "**E**" = Copy with attachment/enclosure "**N**" = No copy

OFFICE	RIII		RIII					
NAME	LCollins:dtp		CLipa					
DATE	7/29/02		7/29/02					

OFFICIAL RECORD COPY

ADAMS Distribution:
AJM
DFT
DVP1
RidsNrrDipmIipb
GEG
HBC
RJP
C. Ariano (hard copy)
DRPIII
DRSIII
PLB1
JRK1

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-440
License No:	NPF-58
Report No:	50-440/02-05
Licensee:	FirstEnergy Nuclear Operating Company (FENOC)
Facility:	Perry Nuclear Power Plant, Unit 1
Location:	P.O. Box 97 A200 Perry, OH 44081
Dates:	April 1, 2002 through June 30, 2002
Inspectors:	Ray Powell, Senior Resident Inspector Billy Dickson, Jr., Acting Senior Resident Inspector John Ellegood, Resident Inspector Robert Jickling, Emergency Preparedness Analyst John E. House, Senior Radiation Specialist James Belanger, Senior Physical Security Inspector
Approved by:	Christine A. Lipa, Chief Branch 4 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000440-02-05; on 04/01-06/30/2002; First Energy Nuclear Operating Company; Perry Nuclear Power Plant. Maintenance Risk Assessments and Emergent Work Evaluation, Surveillance Testing, Event Follow-Up.

This report covers a Quarterly Routine Inspection, an Occupational and Public Radiation Safety inspection, and a Physical Protection inspection. The inspections were conducted by resident inspectors and regional specialist inspectors. The inspection identified three Green findings, two of which were Non-Cited Violations. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609, "Significance Determination Process" (SDP). The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at: http://www.nrc.gov/NRR/OVERSIGHT/index.html. Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violations.

A. Inspector Identified Findings

Cornerstone: Initiating Events

Green. The inspectors identified a Non-Cited Violation of Technical Specification 5.4.1.a for failure to follow procedures while paralleling to the grid. Licensee personnel failed to verify synchronization prior to closure of a main generator output breaker.

The finding was of very low safety significance because the event did not effect the likelihood of a loss of coolant accident, contribute to both a scram and loss of mitigation equipment, nor increase the likelihood of flooding or fire. (Section 4OA3.2).

Cornerstone: Mitigating Systems

GREEN. The inspectors identified a licensee performance deficiency associated with the protection of Emergency Service Water 'B' and 'C' trains during a Division 1 ('A' train) outage. Although the 'B' and 'C' pumps were posted as protected equipment, the motor control centers were not.

The finding was of very low safety significance because, although the inspectors observed considerable work activities in the immediate vicinity of the motor control centers, the mitigation systems remained operable. (Section 1R13).

GREEN. A Non-Cited Violation of 10 CFR 50 Appendix B, Criterion XVI for failure to ensure conditions adverse to quality are corrected. The licensee failed to correct a previously identified procedure deficiency associated with test equipment used to test the level 3 and level 8 Reactor Protection System and Residual Heat Removal shutdown insolation functions. As a result, during the April 2002 performance of the 24-month surveillance, the licensee experienced a similar failure.

The finding was of very low safety significance because, although the procedure deficiency had an actual impact causing the loss of one channel of level protective functions for several hours, no actual loss of safety function occurred. (Section 1R22).

B. Licensee Identified Violations

No findings of significance were identified.

Report Details

Summary of Plant Status: The plant began the inspection period with Unit 1 at 100 percent power. The unit remained at 100 percent power with periodic power reductions for rod line changes until June 1, 2002, when the licensee began reducing power due to a generator exciter ground. Due to the exciter ground, the unit entered mode 4 on June 4. After replacing the exciter, the unit reached criticality on June 12 and synchronized to the grid on June 13. Because the operators paralleled out of phase, the plant slowly ascended in power while monitoring key generator parameters. On June 18, the plant achieved 100 percent power and, except for scheduled power reductions for rod lines changes, remained at 100 percent for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R01 Adverse Weather (71111.01)

a. Inspection Scope

The inspectors reviewed licensee Off-Normal Instruction (ONI) ZZZ-1, "Tornado or High Winds," and discussed severe weather preparations and response with operations personnel. The inspectors also reviewed the licensee's response to the tornado watch posted on May 9, 2002. The inspectors verified that the ONI was entered, that immediate actions were performed, and that site supervision was appropriately notified as required by the procedure. Finally, the inspectors walked down a sample of credited tornado depressurization barriers to review position and material condition.

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 Standby Liquid Control (SLC) system to verify system operability. The SLC system was selected due to its high risk significance. The inspectors used SLC system valve lineup instructions (VLIs) and system drawings to accomplish the inspection.

The inspectors observed selected switch and valve position, 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 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 Reactor Core Isolation Cooling (RCIC) system, a risk significant system, with emphasis on support systems, to evaluate its readiness while the High Pressure Core Spray (HPCS) system was inoperable due to the planned maintenance.

- The HPCS system during a planned Division 1 outage which included work on the 'A' ESW train, the Division 1 Diesel Generator (DG), the 'A' Residual Heat Removal (RHR) train, and the Low Pressure Core Spray (LPCS) system.

- The HPCS system prior to and during mode changes associated with the Unit startup on June 12, 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 Areas CC-1a and CC-1b, Emergency Closed Cooling Pumps and Heat Exchangers

- Fire Area 1CC-3c, Division 1 Switchgear Room
- Fire Area 1AB-1c, RCIC Room
- Fire Area IB-1, Intermediate Building 574'
- Fire Area 1DG-1a, Division 2 Diesel Generator
- Fire Area 1AB-3a, Auxilary Building, 620' East
- Fire Area ESW-1A, Emergency Service Water (ESW) Pumphouse
- Fire Area 1AB-2a, Auxiliary Building, 599' East

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 (71111.06)

a. Inspection Scope

The inspectors reviewed licensee documentation containing design flood levels for areas containing safety equipment to assess whether flooding mitigation plans and equipment were consistent with the design analysis and risk analysis assumptions. Specifically, the inspectors reviewed:

- flood zone 13, control complex elevation 576'10"
- plant underdrain system

The inspectors also assessed the adequacy of the plant's underdrain system to meet design requirements of the Updated Safety Analysis Report (USAR). Additional inspection activities included reviews of appropriate design documentation, condition reports, safety analysis, and walkdowns of the underdrain system, flood zone 13, and areas susceptible to flooding. The documents at the end of this report were used by the inspectors during assessment of this area.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11)

a. Inspection Scope

On April 16, 2002, the resident inspectors observed licensed operator performance in the plant simulator. The evaluated scenario included a leak in underground ESW piping, a seismic event, and a failure to scram.

The inspectors evaluated crew performance for clarity and formality of communication; the ability to take timely action in the safe direction; the prioritizing, interpreting, and verifying of alarms; the 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.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation (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 risk were adequate. The inspectors also reviewed licensee actions to address increased on-line 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 risk was increased due to maintenance on risk-significant structures, systems, and components. The following specific activities were reviewed:

- The revised maintenance risk assessment for work planned for the week beginning April 8, 2002. The inspectors verified that the risk profile was appropriately revised due to emergent work associated with the Division 2 DG lube oil pump that resulted in Division 2 DG unavailability.

- The maintenance risk assessment for work planned for the week beginning April 15, 2002. The work week included a planned HPCS system outage.

- The maintenance risk assessment for work planned for the week beginning April 29, 2002. The work week included a planned diesel fire pump inoperabilty due to electrical bus maintenance and planned maintenance on the "B' train of ESW pumphouse ventilation.

- The revised maintenance risk assessment for work planned for the week beginning April 29, 2002. The inspectors verified that the risk profile was appropriately revised due to emergent work associated with the RCIC turbine oil leak that resulted in RCIC system unavailability.

- The maintenance risk assessment for the planned Division 1 outage which included work on the 'A' ESW train, the Division 1 DG, the 'A' RHR Train, and the LPCS.

- The maintenance risk assessment for work involving the feedwater seal water injection pump.

b. Findings

GREEN. The inspectors identified a licensee performance deficiency associated with the protection of ESW 'B' and 'C' trains during a Division 1 ('A' train) outage. Although the 'B' and 'C' pumps were posted as protected equipment, the respective motor control centers (MCCs) were not.

On May 20, 2002, the licensee commenced a planned Division 1 outage which included work on the 'A' ESW train, the Division 1 DG, the 'A' RHR Train, and the LPCS system. Commensurate with the increased risk profile, the licensee established restricted access areas which included the 'B' and 'C' ESW trains. On May 20, the inspectors conducted a walkdown of the identified restricted areas to determine whether they were appropriately posted and controlled.

Upon entering the ESW pumphouse the inspectors observed a high amount of activity involving planned forebay diving activities. The inspectors proceeded to the ESW 'B' and 'C' train pump areas and noted the areas were roped off with the licensee's red "protected equipment" signs posted at all points of entry. The MCCs located on the north side of the pumphouse were not, however, similarly posted. The inspectors observed caution tape attached to the front of the MCCs. The inspectors also observed numerous activities supporting the diving operations occurring in the immediate vicinity of the MCCs.

The inspectors discussed their observations with the on-duty Shift Manager and the on-coming Shift Manager. Both Shift Managers were aware of the caution tape usage and the diving operations. In fact, prior to entering the pumphouse, the inspectors had been advised by the Shift Manager to exercise extra caution due to the large volume of diving equipment (hoses, tanks, suits, etc.) and activity in the area.

The inspectors conveyed three specific concerns to licensee management. First, the use of caution tape, with no amplifying instructions/signs to designate protected equipment, was not consistent with the licensee's Industrial Safety Manual which described yellow caution tape as appropriate for "marking physical hazards such as tripping, stumbling, and falling" nor was it consistent with the licensee's established practice for posting protected equipment. Second, the inspectors noted there was no standoff area established between the caution tape and the MCCs. In addition to being a poor practice, the condition was contrary to guidance in the Industrial Safety Manual which stated in part "when posting an area with barrier rope or tape, the barriers should be no closer to the hazard than six feet unless this is physically impossible or creates an additional hazard." The inspectors did not identify any condition, other than the diving activities, which would have prevented establishing the suggested six foot standoff area. Finally, the inspectors noted that there was no procedure in place that governed protection of equipment that increased in risk significance due to planned unavailability of opposite train safety equipment.

The performance deficiency associated with this event was failure to adequately post and restrict potential access, intended or inadvertent, to protected train equipment. The finding was greater than minor because the licensee's practice was considered to be a precursor to a significant event such as inadvertently rendering multiple trains of mitigating systems inoperable. The finding was of very low safety significance because although the inspectors observed considerable work activities in the immediate vicinity of the ESW 'B' and 'C' MCCs, the mitigation systems remained operable. In accordance with NRC's Enforcement Policy, the issue is not a violation of NRC requirements since potential procedure noncompliances were associated with the Industrial Safety Manual, rather than a Technical Specification (TS) or 10 CFR Appendix B required procedure.

The licensee initiated Condition Report 02-1555 to document the inspectors findings and corrected the conditions (FIN 50-440/02-05-01).

1R14 Personnel Performance During Nonroutine Plant Evolutions (71111.14)

a. Inspection Scope

The inspectors reviewed licensee performance during aborted startup testing of the hydrogen water chemistry system. The inspectors observed crew briefs, observed testing, reviewed test results, and reviewed licensee response to equipment challenges. Finally, the inspectors reviewed licensee radiological control practices relative to the potentially changing radiological conditions due to hydrogen injection.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors selected Condition Reports (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 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 potential spurious opening of the ESW sluice gates due to a fire resulting in a hot short
- the licensee's evaluation of the impact of identified leaks in the RCIC turbine oil system on RCIC system operability
- the licensee's evaluation of the potential inadequate engagement of the RCIC system trip throttle valve following a trip of the RCIC system
- the licensee's evaluation of the impact of the feedwater venturi water leakage on a junction box in the RCIC pump room
- the licensee's evaluation of low ESW flow to the HPCS room cooler

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 NRC 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:

- RCIC following trouble shoot and repair of flow controller
- RCIC following water leg pump repair
- DG 1 day tank level instrumention replacement
- Main Condenser/Feedwater Heater Drain Line

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:

- HPCS DG Start and Load
- HPCS Logic System Functional Test
- Reactor Pressure Vessel (RPV) Low Level 3 and Level 8 Reactor Protection System (RPS) and RHR Shutdown Isolation Test
- Average Power Range Monitor F Flow Channel Calibration
- LPCS Quarterly Surveillance Test
- HPCS Quarterly Surveillance Test

b. Findings

GREEN. The inspectors identified a Green finding that is being treated as a Non-Cited Violation of 10 CFR 50 Appendix B, Criterion XVI for failure to assure conditions adverse to quality are corrected.

On April 8, 2002, the licensee used a piece of test equipment that was not adequate to properly surveil the level 3 and level 8 RPS and RHR shutdown insolation functions. On the previous performance of this 24-month surveillance, the licensee experienced a similar failure and concluded that the test equipment used was not adequate. However, the governing procedure was not revised and the error recurred.

Licensee procedure SVI-B21-T0035-D, “Reactor Pressure Vessel (RPV) Low Level 3 and High Level 8 RPS and RHR Shutdown Isolation Channel D Calibration for 1B21-N680D,” calibrated the RPV level 3 and Level 8 instruments to satisfy Surveillance Requirements 3.3.1.1.13 and 3.3.6.1.4 with a 24-month frequency. The procedure specified use of two Transmation 1040 or equivalent test devices. However, plant experience demonstrated that the Transmation 1040 lacked sufficient power to effectively test the system. The licensee determined that a Fluke 702 had adequate power and must be used for certain steps of the surveillance. The Transmation 1040 was still required on other steps since the Fluke 702 did not have a high enough current output. The inspectors determined that this procedure deficiency had not been entered into the licensee’s corrective action program. Instead, the licensee used a memo to technicians to communicate the proper equipment to use and gave the procedure revision a low priority since it permitted the use of the Fluke 702.

On April 8, 2002, while performing the procedure with the Transmation 1040, the licensee observed anomalous results from the SVI and failed the surveillance. The licensee replaced the Trip Unit but the retest failed. Eventually, licensee personnel recalled the past problems with use of test equipment, reinstalled the old trip unit and successfully completed the surveillance using appropriate test equipment. This resulted in the inoperablity of the affected channel for about 11 hours.

The performance deficiency associated with this event was the failure to assure conditions adverse to quality are properly identified and corrected. The finding was greater than minor because it had an actual impact causing the loss of one channel of level protective functions for several hours. In addition, the same problem existed in over 30 other procedures although this was the only instance where the improper test equipment was used. Further evaluation under the Significance Determination Process (SDP) categorized the finding as Green because no actual loss of safety function occurred.

This finding is a violation of 10 CFR 50 appendix B Criterion XVI which states, in part, that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformance are promptly identified and corrected. Contrary to this requirement, no condition report was initiated for the prior surveillance failure nor were procedures revised to specify the proper test equipment. The licensee entered the most recent failure into the corrective action program (CR 02-01037) and is in the process of correcting the affected procedures. 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 Non-Cited Violation, consistent with Section VI.A.1 of the NRC Enforcement Policy (NCV 50-440/02-05-02).

Cornerstone: Emergency Preparedness

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

a. Inspection Scope

The inspectors reviewed Revision 15 of the Perry Nuclear Power Plant Emergency Plan to determine whether changes identified in Revision 15, Temporary Change No. C-2, reduced the effectiveness of the licensee's emergency planning, pending onsite inspection of the implementation of these changes.

b. Findings

No findings of significance were identified.

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 May 15, 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. Additionally, the inspectors observed controller training developed to improve controller performance during drill simulations.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety (OS)

2OS1 Access Control to Radiologically Significant Areas (71121.01)

.1 Job In-Progress Reviews

a. Inspection Scope

The inspector observed aspects of work activities having significant dose potential, that were being performed in the Radwaste Building, in order to ensure that adequate radiological controls were assigned and implemented. The inspectors observed radiation protection preparations and radiological controls for the placement of a high integrity container into a shipping cask. The inspectors observed engineering controls, radiological

postings, radiological boundary controls, and radiation monitoring locations to verify that radiological controls were effective in minimizing dose. The inspectors also observed radiation worker performance to verify that the workers were complying with radiological requirements and were demonstrating adequate radiological work practices.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety (PS)

2PS3 Radiological Environmental Monitoring and Radioactive Material Control Programs (71122.03)

.1 Review of Environmental Monitoring Reports and Data

a. Inspection Scope

The inspector reviewed the licensee's Radiological Environmental Monitoring Program (REMP) in order to verify that this program was implemented as required by the Offsite Dose Calculation Manual (ODCM) and associated TSs, and that changes, if any, did not affect the licensee's ability to monitor the impacts of radioactive effluent releases on the environment. The Annual Radiological Environmental Monitoring Reports for the years 2000 and 2001 were reviewed including sampling location commitments, monitoring and measurement frequencies, land use census, the vendor laboratory's Interlaboratory Comparison Program, and data analysis. Anomalous results including data, missed samples, and inoperable or lost equipment were evaluated. The most recent quality assessment of the licensee's REMP vendor laboratory for environmental sample analyses was evaluated to verify that the vendor laboratory performance was consistent with licensee and NRC requirements.

b. Findings

No findings of significance were identified.

.2 Walkdowns Of Radiological Environmental Monitoring Stations and Meteorological Tower

a. Inspection Scope

The inspector conducted a walkdown of the seven environmental air sampling stations and

selected thermoluminescent dosimeters to verify that their locations were consistent with their descriptions in the ODCM, and to evaluate the equipment material condition. The meteorological monitoring site was observed to validate that sensors were adequately positioned and operable. The inspectors reviewed meteorological instrument calibration documentation for the onsite meteorological monitoring program, including data recovery, routine calibration, and maintenance activities to verify that the meteorological instrumentation was operable, calibrated, and maintained in accordance with licensee procedures. The inspectors also verified that readouts of wind speed, wind direction, and atmospheric stability measurements were available on the licensee's computer system which was available in the Control Room, and that the system was operable.

b. Findings

No findings of significance were identified.

.3 Review of REMP Sample Collection and Analysis

a. Inspection Scope

The inspector accompanied a licensee REMP technician to observe the collection and preparation of environmental samples including surface water, air filters (particulate) and charcoal cartridges (iodine) to verify that representative samples were being collected in accordance with procedures and the ODCM. The inspectors observed the technician perform air sampler field check maintenance to verify that the air samplers were functioning in accordance with procedures. Selected air sampler calibration and maintenance records for 2002 were reviewed to verify that the equipment was being maintained as required. The environmental sample collection program was compared with the ODCM to verify that samples were representative of the licensee's release pathways. Additionally, The inspectors reviewed results of the vendor laboratory's Interlaboratory Comparison Program to verify that the vendor was capable of making adequate radio-chemical measurements.

b. Findings

No findings of significance were identified.

.4 Unrestricted Release of Material From the Radiologically Restricted Area

a. Inspection Scope

The inspector evaluated the licensee's controls, procedure, and practices for the unrestricted release of material from radiologically restricted areas and verified that: (1) radiation monitoring instrumentation used to perform surveys for unrestricted release of

materials was appropriate; (2) instrument sensitivities were consistent with NRC guidance contained in Inspection and Enforcement (IE) Circular 81-07 and Health Physics Positions in NUREG/CR-5569 for both surface contaminated and volumetrically contaminated materials; (3) criteria for survey and release conformed to NRC requirements; (4) licensee procedures were technically sound and provided clear guidance for survey methodologies; and (5) radiation protection staff adequately implemented station procedures.

The inspector reviewed the quality control records for radiochemistry instrumentation used to identify and quantitate radioisotopes in materials for free release, in order to verify that the instrumentation was calibrated and maintained as required by site procedures. This review included instrument calibrations, control charts, and the environmental lower limit of detection capability.

b. Findings

No findings of significance were identified.

.5 Identification and Resolution of Problems

a. Inspection Scope

The inspector reviewed condition reports, the results of a Nuclear Quality Assessment Audit of the REMP, and a benchmark evaluation of the licensee's vendor laboratory to determine if problems were being identified and entered into the corrective action program for timely resolution. These documents were also reviewed to verify that the licensee's audit program met the requirements of 10 CFR 20.1101(c) and that the audit results demonstrated that the REMP was implemented as required by the ODCM and associated TSs. The inspectors also reviewed the licensee's overall management of the REMP, including attention to details of the sampling program and the vendor laboratory, in order to evaluate the effectiveness of the REMP in collection and analysis of samples for the detection of offsite radiological contamination.

b. Findings

No findings of significance were identified.

3. SAFEGUARDS

Cornerstone: Physical Protection

3PP3 Response to Contingency Events (71130.03)

a. Inspection Scope

The inspectors reviewed the licensee's current protective strategy which included designated targets and target sets, their associated analysis, and security and operation response procedures. The inspectors also reviewed security event reports, and portions of the licensee's problem identification and resolution program to determine that issues related to the licensee's contingent event program were identified at the appropriate threshold and were entered into the licensee's corrective action program. Items reviewed included self-assessments, audits, and a sample of training records, force on force drill evaluations, and the licensee's procedure for their corrective action process. In addition, the inspectors conducted interviews with security officers and security management to evaluate their knowledge and use of the licensee's corrective action system.

The inspectors reviewed appropriate security records and procedures that were related to security drills, drill demonstrations, and drill critiques to verify the licensee's continuing capabilities to identify issues that represented uncorrected performance weaknesses or program vulnerabilities.

The inspectors reviewed records and interviewed five selected members of the uniformed security force to evaluate and verify security training that related to alarm station operations, tactical "force-on-force" training, and weapon proficiency training.

The inspectors also reviewed performance indicator information related to alarm equipment performance to determine if isolated or system problems with the protected area intrusion alarm system and/or assessment system had become predictable and potentially exploitable by an adversary.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES (OA)

4OA1 Performance Indicator (PI) Verification (71151)

a. Inspection Scope

The inspectors reviewed reported first quarter 2002 data for the Emergency AC Power System Unavailability, Functional Failures, and Reactor Coolant System Leakage PIs using the definitions and guidance contained in Nuclear Energy Institute 99-02, "Regulatory Assessment Indicator Guideline," Revision 2. The inspectors reviewed station logs, event notification reports, licensee event reports, condition reports, and TS logs to verify the accuracy of the licensee's data submission.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

a. Inspection Scope

Due to an observed decline in licensee human performance, potentially affecting multiple cornerstones, the inspectors reviewed human performance related CRs to verify that corrective actions commensurate with the issues were identified and implemented in a timely manner, including corrective actions to address common cause or generic concerns.

b. Findings

No findings of significance were identified.

4OA3 Event Followup (71153)

.1 Ground on the Turbine Generator Exciter

a. Inspection Scope

On June 2, the inspectors responded to the site to observe operator actions and plant conditions following receipt of a ground on the Turbine Generator Exciter. The fault occurred late on June 1 and required a reduction of plant power and eventual shutdown of the plant to mode 4 to effect repairs on the exciter. The inspectors followed up on the event by observing licensee activities to troubleshoot the ground, and operate the reactor. Response included review of logs and technical documentation as well as interviews with licensee personnel.

b. Findings

No findings of significance were identified.

.2 Improper Synchronization to the Power Grid

a. Inspection Scope

Inspectors performed follow up activities after the licensee paralleled the main generator out of phase to the grid. Following replacement of the Turbine Generator's exciter, the licensee brought the reactor critical and raised power in preparation for synchronizing to the grid. The licensee properly synchronized and closed one generator output breaker; however, the breaker immediately tripped open. Unaware that this occurred, the operators closed the other output breaker without verifying synchronization. The inspectors reviewed logs, printouts and other documents as well as interviewed plant employees.

b. Findings

Green. The inspectors identified a Non-Cited Violation of TS 5.4.1.a for failure to follow procedures while paralleling to the grid.

On June 13, 2002, at approximately 5:56 a.m., with reactor power at 20 percent, Perry Nuclear Power Plant synchronized to the grid using the S-611 main generator output breaker. Integrated Operating Instruction (IOI) 3, "Power Changes," the procedure in effect for this evolution, required the operator to verify synchronization and close breaker S-610. Contrary to this requirement, synchronization was not verified prior to closure of the S-610 breaker. Immediately after the operator closed the S-610 breaker, numerous alarms sounded, including main transformer 345 KV neutral-ground over current relay 50-51, main generator A phase over current, and the oscillograph startup alarm. The operator then noted that the S-611 breaker had tripped and informed the Unit Supervisor. The licensee halted all power ascension activities.

A licensee investigation into this event revealed that the S-611 breaker tripped approximately 2 seconds after it was closed and 15 seconds before the S-610 breaker was closed. During the 15 seconds the generator was not connected to the grid, the turbine became out of phase with the grid. The licensee and General Electric (GE) both completed independent calculations of the amount the generator was out of phase when the breaker closed and determined the phase angle to be 70 degrees and 50 degrees respectively. The licensee informed the inspectors that GE would prescribe an inspection of turbine components if the generator had been 120 degrees or more out of phase. If 30 degrees or less out of phase, the generator would not be damaged and no action would be required. Since the phase angle was between those values, GE recommended additional monitoring during power increase. The licensee accepted the GE recommendations and monitored for:

- gross water leakage from the stator water cooling system
- abnormal temperature readings at various generator locations
- hydrogen usage in the generator
- main turbine bearing vibrations
- stator windings temperature
- stator windings vibrations
- broken ties, cracked epoxy, cracked paint, cracked piping, loose bars and blocks

Under normal conditions, once one of the output breakers was closed there would be no phase difference across the other output breaker. The operator would need to position the synchroscope selector switch to the proper breaker to satisfy an interlock, but no generator adjustments would be needed to close the breaker. However, procedurally the operator was required to verify synchronization across the breaker to guard against out of phase synchronization.

The performance deficiency associated with this event was the failure to follow procedures. Technical Specification 5.4.1.a required written procedures to be implemented covering applicable procedures recommended by Regulatory Guide 1.33. Regulatory Guide 1.33 recommended procedures for Synchronization of the Generator.

The procedure for this synchronization, IOI 3, required verification of synchronization prior to closure of generator output breakers and this verification was not accomplished. The finding was greater than minor because it had an actual impact of closing a turbine generator output breaker out of phase with the grid. This condition could reasonably be viewed as a precursor to a significant event because had the breaker been closed further out of phase, the resulting transient could have severely damaged plant equipment as well as caused actuation of fault protection for onsite equipment. In addition, the finding directly affected the Initiating Events cornerstone objective to limit the likelihood of those events that upset plant stability. Since the event does not effect the likelihood of a loss of coolant accident, contribute to both a scram and loss of mitigation equipment, nor increase the likelihood of flooding or fire, a phase 1 review in accordance with Chapter 0609 of the NRC inspection manual yields a Green result.

This finding is a violation of T.S. 5.4.1.a. The Licensee has entered this condition into their corrective action program (CR 02-01886) and is investigating the root cause of the event. 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 Non-Cited Violation, consistent with Section VI.A.1 of the NRC Enforcement Policy (NCV 50-440/02-05-03).

.3 (Closed) Licensee Event Report (LER) 50-440/2001-005-01: Automatic RPV Level SCRAM, Specified System Actuations And Inoperability of the Division 3 Diesel Generator. On December 15, 2001, the plant experienced a reactor scram due to failure of a logic card in the feed control system. During system restoration, the licensee

improperly secured the HPCS diesel generator which resulted in failure of its next surveillance. Findings associated with this event are documented in IR 50-440/2001-015.The inspectors reviewed the LER. No inaccuracies or new issues were identified.

4OA6 Meetings

.1 Interim Exit Meetings

Senior Official at Exit:	W. Kanda, Plant Manager
Date:	June 6, 2002
Proprietary:	No
Subject:	Baseline Security Inspection
Change to Inspection Findings:	No

Senior Official at Exit:	Mr. K. Ostrowski, Director, Nuclear Services
Date:	May 23, 2002
Proprietary:	No
Subject:	Access Control Program, Radiological Environmental Monitoring and Radioactive Material Control

Programs

Change to Inspection Findings: No

.2 Exit Meeting

The inspectors presented the inspection results to Mr. William Kanda, Site Vice President and other members of licensee management at the conclusion of the inspection on July 1, 2002. The licensee acknowledged the findings presented. No proprietary information was identified.

KEY POINTS OF CONTACT

Licensee

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

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-440/02-05-01	FIN	Inadequate Posting of Protected Equipment During Risk Significant Maintenance Activities
50-440/02-05-02	NCV	Failure to Correct Procedure Deficiency Involving Surveillance Test Equipment
50-440/02-05-03	NCV	Failure to Follow Procedures While Paralleling to the Grid

Closed

50-440/2001-005-01	LER	Automatic RPV Level SCRAM, Specified System Actuations And Inoperability Of the Division 3 Diesel Generator
50-440/02-05-01	FIN	Inadequate Posting of Protected Equipment During Risk Significant Maintenance Activities
50-440/02-05-02	NCV	Failure to Correct Procedure Deficiency Involving Surveillance Test Equipment
50-440/02-05-03	NCV	Failure to Follow Procedures While Paralleling to the Grid

LIST OF ACRONYMS USED

CFR	Code of Federal Regulations
CR	Condition Report
DG	Diesel Generator
ESW	Emergency Service Water
FENOC	FirstEnergy Nuclear Operating Company
GE	General Electric
HPCS	High Pressure Core Spray
LER	Licensee Event Report
LOCA	Loss of Coolant Accident
LPCS	Low Pressure Core Spray
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
MCCs	Motor Control Centers
ODCM	Offsite Dose Calculation Manual
ONI	Off-Normal Instruction
PI	Performance Indicator
RCIC	Reactor Core Isolation Cooling
REMP	Radiological Environmental Monitoring Program
RHS	Residual Heat Removal
RPS	Reactor Protection System
RPV	Reactor Pressure Vessel
SDP	Significance Determination Process
SLC	Standby Liquid Control
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

Drawing Series D105	Control Complex Architectural	
PAP 0911	Control Room Boundary Integrity and Tornado Depressurization Barrier Impairment , Rev. 0	January 4, 1996
Calculation 1:05.15	Tornado Venting of the Control Complex	November 2, 2000
ONI-ZZZ-1	Tornado or High Winds, Rev. 2	June 30, 1995

1R04 Equipment Alignment

Drawing 302-0691	Standby Liquid Control System	
Drawing 302-0692	Standby Liquid Control Transfer System	
VLI-C41	Standby Liquid Control System (Unit 1), Rev. 5	March 14, 1989
System Health Report	Standby Liquid Control System Status Report	4th Quarter 2001
Drawing Change Notice 4987	Installation of Pressure Gage at Vent Valve 1C41F0546 and Placement of Vent Valve 1C41F0547 in Throttled Position	June 29, 1995
CR 01-0450	Failure to Identify Unavailability of SLC Train B	February 8, 2001
CR 01-0690	1C41F0029B As-Found Test Failure High	February 21, 2001
CR 01-0691	1C41F0029A As-Found Test Failure Low	February 21, 2001
CR 01-1250	SLC Concentration	March 9, 2001
CR 01-1918	Storage of Boric Acid & Borax 620' IB Not In Accordance with FCR 022606	April 23, 2001
SOI-P45/49	Emergency Service Water and Screen Wash Systems, Rev. 2	September 19, 1995
VLI-P45	Emergency Service Water System, Rev. 4	August 22, 1989
Drawing D-302-791	Emergency Service Water System	July 25, 2001
Drawing D-302-792	Emergency Service Water System	April 17, 2000
SOI-P42	Emergency Closed Cooling System, Rev. 7	March 16, 1996
VLI-P42	Emergency Closed Cooling System, Rev. 6	September 29, 1995
Drawing D-302-621	Emergency Closed Cooling System	March 12, 2002

Drawing D-302-622	Emergency Closed Cooling System	April 17, 2000
VLI-E51	Reactor Core Isolation Cooling System (Unit 1), Rev. 3	September 27, 1988

1R05 Fire Protection

Drawing E-023-006	Fire Protection Evaluation - Units 1 and 2 Control Complex Plan - El. 574'-10"	September, 2001
Drawing E-023-002	Fire Protection Evaluation - Unit 1 Auxiliary and Reactor Buildings Plan - El. 574'-10"	September, 2001
Drawing E-023-011	Fire Protection Evaluation - Units 1 and 2 Control Complex and Diesel Generator Building Plan - El. 620'-6"	September, 2001
Drawing E-023-003	Fire Protection Evaluation- Units 1 and 2 Intermediate Buildings Plan El. 574'-10"	May 1995
Drawing E-023-10	Fire Protection Evaluation- Unit 1 Auxiliary and Reactor Building Plan El. 620'-6"	September, 2001
USAR Section 9A.4.4.3.1.3	Fire Area 1CC-3c	
USAR Section 9A.4.4.1.1	Fire Zone CC-1a	
USAR Section 9A.4.4.1.2	Fire Zone CC-1b	
USAR Section 9A.4.2.1.3	Fire Zone 1AB-1c	
USAR Section 9A.4.5.1.1	Fire Area 1DG-1a	
USAR 9A.4.2.1.9.1	Fire Zone 1AB-3a	
USAR Section 9A4.3.1.1	Fire Zone IB-1	

1R06 Flood Protection Measures

PTI-P72-P0001	Plant Underdrain Continuity test	November 7, 1994
PTI-P72-P0002	Plant Underdrain Groundwater Inflow Test	June 8, 1995
PTI-P72-P0005	Plant Underdrain Groundwater Level Readings	October 12, 1998
CR 02-01892	PTI-P72-P0002 Not performed by late date due to ECP 01-5033	June 13, 2002

CR 02-00250	Plant Underdrain Temp Mod 1-02-001 50.59 not conservative	January 23, 2002
Calculation IF-6	Flood Zone 13, Critical Volume and Flood Rates	December 20, 1991
USAR 2.4	Hydrologic Engineering	

1R11 Licensed Operator Requalification

ONI D51	Earthquake, Rev. 5	June 26, 2001
ONI C71-1	Reactor Scram, Rev. 3	May 21, 2001
ONI ZZZ-6	Leak in Underground Piping, Rev. 1	June 21, 2001
PEI-B13	Reactor Pressure Vessel Control, Rev. 4	August 19, 1994

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

	Week 8, Period 5 Forecast Risk Profile	April 8, 2002
	Week 9, Period 5 Forecast Risk Profile	April 15, 2002
	Week 11, Period 5 Forecast Risk Profile	April 29, 2002
	Week 1, Period 6 Forecast Risk Profile	May 13, 2002
OAI-1701	Tracking of LCOs, Rev. 2	December 5, 2000
PAP 1924	On-Line Safety Assessment and Configuration Risk Management, Rev. 2	November 30, 2000

1R15 Operability Evaluations

CR 02-00985	Latent Issues, Sluice Gates Do Not Have Hot Short Mod	April 2, 2002
CR 02-01196	Excessive Oil Leakage From the RCIC Turbine	April 21, 2002

1R19 Post-Maintenance Testing

SVI-E51-T2001	RCIC Pump and Valve Operability Test	May 5 2002
WO-02-4999	RCIC Turbine	May 5, 2002
SVI-E51-T2003	RCIC Water Leg Pump and Associated Valves Cold Start	March 28, 2002
SVI-E51-T2001	RCIC Pump and Valve Operability Test	March 29, 2002
SVI-R43-T1317	Diesel Generator Start and Load Division 1	December 6, 2000

1R22 Surveillance Testing

SVI-C51-T0033F	APRM F Flow Channel Calibration for 1C51-K605F	23 April 2002

SVI-B21-T0035D	RPV Low Level and High Level 8RPS and RHR Shutdown Isolation	April 8,2002
SVI-E22-T1192	HPCS Logic System Functional Test	April 18, 2002
SVI-R43-T1318	Diesel Generator Start and Load Division 2	April 5, 2002
SVI-E21-T2001	Low Pressure Core Spray Pump and Valve Operability Test	March 12, 2001

1EP4 Emergency Action Level and Emergency Plan Changes

Perry Nuclear Power Plant Emergency Plan, Rev. 15

Perry Nuclear Power Plant Emergency Plan, Rev. 15, Temporary Change No. 2

2PS3 Radiological Environmental Monitoring and Radioactive Material Control Programs

REMP-0018	Radiological Environmental Monitoring Program: Reporting Requirements	Revision 5
REMP-0022	Radiological Environmental Monitoring Program: Processing Data from the PNPP Meteorological Tower	Revision 3
REMP-0006	Radiological Environmental Monitoring Program: Fish Sampling Instruction	Revision 6
REMP-0007	Radiological Environmental Monitoring Program: Sediment Sampling	Revision 7
REMP-0008	Radiological Environmental Monitoring Program: Precipitation Sampling	Revision 5
REMP-0009	Radiological Environmental Monitoring Program: Surface and Drinking Water Sampling	Revision 5
REMP-0010	Radiological Environmental Monitoring Program: Milk Sampling	Revision 5
REMP-0012	Radiological Environmental Monitoring Program: Food Product Sampling	Revision 5
REMP-0014	Radiological Environmental Monitoring Program: Exchange of Field Dosimeters	Revision 4
REMP-0023	Radiological Environmental Monitoring Program: Air Sample Collection	Revision 2
REMP-0016	Radiological Environmental Monitoring Program: Soil Sampling	Revision 4

REMP-0013	Radiological Environmental Monitoring Program: Sampling Locations	Revision 9
REMP-0017	Radiological Environmental Monitoring Program: Land Use Survey For Residence, Gardens, and Milk Producing Animals	Revision 7
REMP-0003	Radiological Environmental Monitoring Program: Completing The Sample Collection Field Form and Label	Revision 6
REMP-0024	Radiological Environmental Monitoring Program: Air Sampler Maintenance and Calibration	Revision 1
HPI-H0004	Identification of Radioactive materials and Release of Materials from RRAs	Revision 2
CHI-0053	Operation of the Gamma Spectroscopy System	Revision 0
	Annual Meteorological Report For The Perry Nuclear Power Plant For 2001	2001
	Annual Environmental and Effluent Release Report for The Perry Nuclear Power Plant	2000
	Annual Environmental and Effluent Release Report for The Perry Nuclear Power Plant	2001
	Air Sampler Maintenance and Calibration Records	2002
PA 01-09	Audit Report: Radiation Monitoring	November 20, 2001
	Audit: Overview of Vendor Operation and Increased Confidence Level of Sample Analysis	May 7-8, 2002
	NUPIC Audit Number 17795	January 9, 2002
CR 02-00028	Annual TLD Found Missing During Quarterly Change-out	February 5, 2002
CR 02-00095	REMP Air Sampler #7 Found Not Running	February 4, 2002
CR 02-00263	Vendor Supplied Computer Software Error	February 12, 2002
CR 02-00579	0D17–K606 and 0D17-R170 (0D170R945) ODCM Testing Requirements	April 8, 2002
CR 01-3974	Request for Assistance Concerning Beta Monitoring of off Gas Tools	November 15, 2001
CR 01-3997	RFA Conditional Release of Rad Material	November 19, 2001
CR 02-00260	Radioactive Labcoat Found at MB100	January 25, 2002
CR 02-00530	Notification of Radioactive Contamination on Trailer Released from Perry Plant	February 19, 2002

CR 02-00676	Clarification of Radwaste Surveyors Responsibilities	March 7, 2002
CR 02-00697	LHRA Door Lock Latching Mechanism Failed	March 10, 2002
CR 02-00722	Evaluate Changing to a Pocketless Modesty Garment	March 12, 2002
CR 02-00759	Evaluate White Finding at Comanche Peak for Relevance to PNPP	March 14, 2002
CR 02-00937	Heise Gauge, Coming into the RRA Was Found to Be Contaminated	March 28, 2002
CR 02-00942	Contaminated Tool Found at Turbine 593 East Results in Personnel Contamination	March 28, 2002
CR 02-01085	Orange Painted Tools Found in Non-RRA Tool Storage Area	April 11, 2002
CR 02-01141	Industry Experience with Hot Particle Control	April 17, 2002
CR 02-01185	Contaminated Modesty Top	April 19, 2002
CR 02-01268	Yellow Bag of Tools Found in SBHS Decon Area Without RAM Tag or RECS Decon Tag	April 26, 2002
CR 02-01201	Rad Material Found in Excess of Posting Limits	April 22, 2002
CR 02-01232	Shovel with Yellow and Orange Paint Found in MB-100	April 24, 2002
CR 02-01267	Increase in Discrete Particles Detected During January 2002	April 26, 2002
CR 02-01305	Heightened Awareness of RRA Tooling Needed by Some Personnel	April 30, 2002
CR 02-01484	Drums Identified Without Radioactive Material Tags	May 15, 2002

3PP3 Physical Protection

	Tactical Response Team Manual	Revision 99-06
	Risk Informed Security Study	November 1999
	Scoped Rifle Training/Instructor's Manual	February 2002
Lesson Plan	Task 07 Weapons Objectives	June 1, 2002
Lesson Plan	Task 06 Response Force Objectives	September 1, 2000
Lesson Plan	CAS/SAS Operator Certification	September 13, 2000

Self-Assessment 340-SPS 2001	Effectiveness of Security Training Unit Firearms Transition	May 15, 2001
Surveillance No. 01-010	OPID Operational Surveillance Report	May 17, 2001
CR-01249	Security SAS Operator Made Untruthful Statements	April 17, 2002
SCI-0037	Suspicious Aircraft	February 7, 2002
SCI-003	Aircraft Threat	February 7, 2002
	Security Event Logs	October 2001 to May 2002
	Table Top Drill Records	October 2001 to May 2002

4OA1 Performance Indicator (PI) Verification

NEI 99-02	Regulatory Assessment Performance Indicator Guideline, Rev. 2	November 2001
Logs	Plant Narrative Logs	July 1, 2001 - March 31, 2002
Logs	Monthly Safety System Unavailability Logs	July, 2001-March, 2002
Logs	Technical Specifications Rounds	January-March, 2002

4OA2 Identification and Resolution of Problems

CR 02-00501	Evaluation of Human Performance Trend in Operations Section	February 17, 2002
CR 01-2662	Fire Protection Valve Misalignment	July 9, 2001
CR 01-3467	Incorrect Starting of the Division 3 Diesel During Performance of Monthly Test	September 28, 2001
CR 01-3533	Incorrect Data Recorded During PTI-P45-P0003 Performance	October 4, 2001
CR 01-3536	Improper Tag Placement	October 4, 2001
CR 01-3639	Incorrect Trains Posted as Protected in ESW Building for the Division 2 Outage	October 15, 2001
CR 01-3704	Incorrect PT Drawer Opened	October 20, 2001

CR 01-3840	Valve Left Out of Position During Operator Rounds	November 4, 2001
CR 01-4120	Inadvertent Switch Manipulation	November 30, 2001
CR 01-4158	Collective Significance Review of Component Misposition Errors	December 4, 2001
CR 02-00409	Switch Misposition Error	February 9, 2002
CR 02-00499	Incorrect P47 Chiller Shutdown During Chiller Swap for PWIS	February 16, 2002
CR 02-00767	Div 3 Diesel Generator Wrong Control Switch Positioned	March 13, 2002

4OA3 Event Followup

IOI-14	Fast Unload and trip of Main Turbine	September 11, 1995
IOI-3	Power Changes	November 11, 1993
CR 02-01712	Sequence of Events Relative to Exciter Field Ground Annunciator	June 1, 2002
CR 02-01713	Exciter Field Ground Alarm Received	June 1, 2002
CR 02-01895	Generator Out of Phase Synchronization Technical Recommendations	June 13, 2002
CR 02-01898	S611 Breaker Cause Analysis CR	June 13, 2002
CR 02-01886	Main Generator Potentially Synchronized Out of Phase During Loading	June 13, 2002