October 28, 2002

Mr. A. C. Bakken III
Senior Vice President
Nuclear Generation Group
American Electric Power Company
500 Circle Drive
Buchanan MI 49107

SUBJECT: D. C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2
NRC INSPECTION REPORT 50-315/02-06(DRP); 50-316/02-06(DRP)

Dear Mr. Bakken:

On September 30, 2002, the NRC completed an inspection at your D. C. Cook Nuclear Power Plant, Units 1 and 2. The enclosed report documents the inspection findings which were discussed on October 2, 2002, with Mr. J. Pollock and other members of your staff.

This 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, one finding whose significance is to be determined was identified (Section 4OA3.2). This issue was determined to be a violation of NRC requirements and is considered to be an unresolved item pending a final safety significance determination.

The NRC has increased security requirements at the D. C. Cook Nuclear Power Plant 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 enclosures will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

/RA/

Anton Vegel, Chief
Branch 6
Division of Reactor Projects

Docket Nos. 50-315; 50-316
License Nos. DPR-58; DPR-74

Enclosure: Inspection Report 50-315/02-06(DRP);
50-316/02-06(DRP)

cc w/encl: J. Pollock, Site Vice President
M. Finissi, Plant Manager
R. Whale, Michigan Public Service Commission
Michigan Department of Environmental Quality
Emergency Management Division
MI Department of State Police
D. Lochbaum, Union of Concerned Scientists

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	50-315; 50-316
License Nos:	DPR-58; DPR-74
Report No:	50-315/02-06(DRP); 50-316/02-06(DRP)
Licensee:	Indiana and Michigan Electric Company
Facility:	D. C. Cook Nuclear Power Plant, Units 1 and 2
Location:	1 Cook Place Bridgman, MI 49106
Dates:	July 1, 2002 through September 30, 2002
Inspectors:	B. Kemker, Senior Resident Inspector D. Passehl, Senior Project Engineer S. Orth, Senior Project Engineer R. Lerch, Senior Project Engineer P. Pelke, Project Engineer A. Dunlop, Reactor Engineer I. Netzel, Reactor Engineer G. O'Dwyer, Reactor Engineer R. Winter, Reactor Engineer W. Slawinski, Senior Radiation Specialist
Approved by:	A. Vegel, Chief Branch 6 Division of Reactor Projects

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SUMMARY OF FINDINGS

IR 05000315-02-06(DRP), IR 05000316-02-06(DRP), on 07/01/2002-09/30/2002, Indiana and Michigan Electric Company, D. C. Cook Nuclear Power Plant, Units 1 and 2. Event Follow-up. Public Radiation Safety.

This report covers a 12-week period of inspection by resident and region based inspectors. The radioactive gaseous and liquid effluent treatment and monitoring program inspection was conducted by a regional senior radiation specialist. The inspectors identified one finding, which is an apparent violation whose significance is to be determined. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process," (SDP). The NRC'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. Inspector Identified Findings

Cornerstone: Initiating Events

- TBD. An Apparent Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed. The licensee failed to provide an appropriate procedure for testing the Unit 1 pressurizer power operated relief valves (PORVs), causing an uncontrolled release of reactor coolant system inventory to the pressurizer relief tank. This issue was self-revealed on June 5, 2002, when pressurizer PORV 1-NRV-153 inadvertently opened while testing actuation logic circuitry for pressurizer PORV 1-NRV-151. The surveillance test procedure failed to provide adequate control of 1-NRV-151 and 1-NRV-153, which have a common automatic opening signal. The release rate exceeded the 25 gallons-per-minute limit established for declaring an Unusual Event in accordance with the licensee's Emergency Plan.

  The inspectors assessed this finding using the Significance Determination Process. The inspectors concluded that this issue could be reasonably viewed as a precursor to a significant event and was therefore more than a minor concern. The inspectors also concluded that this finding was associated with the initiating events cornerstone and adversely affected the cornerstone objective. Specifically, the uncontrolled release of reactor coolant system inventory upset plant stability and challenged the inventory control safety function. The inspectors determined that the unit was in a configuration where a single active failure or personnel error could have resulted in a rapid loss of reactor coolant system inventory and therefore required a Phase 2 SDP analysis for shutdown risk. The safety significance of this finding is "To Be Determined" (TBD) pending the completion of additional staff review. (Section 4OA3.2)

B. Licensee Identified Violations

None

REPORT DETAILS

Summary of Plant Status:

Unit 1 operated at or near full power during this inspection period.

Unit 2 operated at or near full power during this inspection period with the following exceptions:

- On July 22, 2002, Unit 2 experienced an automatic reactor trip when the main turbine tripped due to a low condenser vacuum while cycling circulating water isolation valves on the main condenser for waterbox debris flushing. The main steam isolation valves were shut after the trip to arrest an excessive reactor coolant system cooldown due to auxiliary steam loads. The licensee performed a reactor startup and synchronized the unit to the grid on July 23, 2002.

- On July 27, 2002, the licensee performed a reactor shutdown to replace a circulating water pump discharge valve that had failed closed. Following the replacement of the valve and some additional forced outage maintenance activities, the licensee performed a reactor startup and synchronized the unit to the grid on August 3, 2002.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R04 Equipment Alignment (71111.04)

.1 Partial System Walkdowns

a. Inspection Scope

The inspectors performed partial system walkdowns of the following risk-significant systems:

Initiating Events Cornerstone

- Unit 2 West Component Cooling Water System Train
- Unit 2 CD Emergency Diesel Generator

Mitigating Systems Cornerstone

- Unit 2 West Charging and Safety Injection System Train
- Unit 1 West Residual Heat Removal System Train

The inspectors selected these systems based on their risk significance relative to the reactor safety cornerstones. The inspectors reviewed operating procedures, Technical Specification (TS) requirements, Administrative Technical Requirements, system diagrams, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of

performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components were aligned correctly.

In addition, the inspectors reviewed the issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for equipment alignment related issues documented in selected condition reports (CRs).

b. Findings

No findings of significance were identified.

.2 Complete System Walkdown

a. Inspection Scope

The inspectors performed a complete system walkdown of the following risk-significant system:

Mitigating Systems Cornerstone

- Unit 1 and 2 Essential Service Water (ESW) System

The inspectors reviewed ongoing system maintenance, open job orders, and design issues for potential effects on the ability of the ESW system to perform its design functions. The inspectors ensured that the configuration of the system was in accordance with applicable operating procedure checklists. The inspectors verified acceptable material condition of system components, availability of electrical power to system components, and that ancillary equipment or debris did not interfere with system performance.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Routine Resident Inspector Tours

a. Inspection Scope

The inspectors performed fire protection walkdowns of the following risk-significant plant areas:

Initiating Events Cornerstone

- Unit 1 Engineered Safety Features (ESF) Motor Control Center Room (Zone 41)
- Unit 2 ESF Motor Control Center Room (Zone 45)

Mitigating Systems Cornerstone

- Unit 1 "N" Train Battery Room (Zone 106)
- Unit 2 "N" Train Battery Room (Zone 107)
- Unit 1 Turbine Driven Auxiliary Feedwater Pump Room (Zone 17E)
- Unit 2 Turbine Driven Auxiliary Feedwater Pump Room (Zone 17F)
- Unit 2 Auxiliary Feedwater Corridor (Zone 17C)
- Unit 1 East Main Steam Valve Enclosure (Zone 33)
- Unit 2 West Main Steam Valve Enclosure (Zone 34)
- Unit 1 AB Emergency Diesel Generator Room (Zone 16)
- Unit 2 AB Emergency Diesel Generator Room (Zone 19)

The inspectors verified that fire zone conditions were consistent with assumptions in the licensee's Fire Hazard Analysis. The inspectors walked down fire detection and suppression equipment, assessed the material condition of fire control equipment, and evaluated the control of transient combustible materials.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures (71111.06)

a. Inspection Scope

The inspectors reviewed and assessed flood protection measures for internal flooding events. The inspectors evaluated whether the licensee took appropriate precautions to mitigate the risk from internal flooding events. Specifically, the inspectors performed the following:

- reviewed the Updated Final Safety Analysis Report (UFSAR) and other selected design basis documents to identify those areas susceptible to internal flooding;

- reviewed the licensee's probabilistic risk analysis and associated flood protection reports to identify risk significant flood areas and protective features;

- reviewed abnormal and alarm response procedures associated with the diagnosis and mitigation of flooding events;

- performed a walkdown of the Turbine Building sub-basement, the auxiliary feedwater pump area, the emergency diesel generator rooms, the refueling water storage tank pipe tunnels, the Auxiliary Building sub-basement, and the ESW system pipe tunnel to evaluate whether appropriate flood protection controls were being maintained;

- reviewed selected station operating procedures used to identify and mitigate internal flooding events; and

- interviewed selected operating and engineering staff regarding internal flooding protection controls.

In addition, the inspectors reviewed the issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for flood protection related issues documented in selected CRs.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11)

.1 Resident Inspector Quarterly Review

a. Inspection Scope

The inspectors assessed licensed operator performance and the training evaluators' critique during licensed operator annual requalification evaluations in the D.C. Cook Plant operations training simulator on August 13, 2002 and September 24, 2002. The inspectors focused on alarm response, command and control of crew activities, communication practices, procedural adherence, and implementation of emergency plan requirements.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors evaluated the licensee's handling of selected degraded performance issues involving the following risk-significant structures, systems, and components (SSCs):

Mitigating Systems Cornerstone

- Auxiliary Feedwater System
- 600 Volt Alternating Current Safety-Related Power
- Emergency Diesel Generators

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the SSCs. Specifically, the inspectors independently verified the licensee's handling of SSC performance or condition problems in terms of:

- appropriate work practices,

- identifying and addressing common cause failures,
- scoping of SSCs in accordance with 10 CFR 50.65(b),
- characterizing SSC reliability issues,
- tracking SSC unavailability,
- trending key parameters (condition monitoring),
- 10 CFR 50.65(a)(1) or (a)(2) classification and reclassification, and
- appropriateness of performance criteria for SSCs/functions classified (a)(2) and/or appropriateness and adequacy of goals and corrective actions for SSCs/functions classified (a)(1).

In addition, the inspectors reviewed the issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for maintenance effectiveness related issues that were documented in selected CRs.

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 and management of plant risk for maintenance activities on the following equipment:

Initiating Events Cornerstone

- Unit 2 Reserve Feed Transformer
- Unit 2 East Component Cooling Water System Train

Barrier Integrity Cornerstone

- Unit 1 East Containment Spray System Train

Mitigating Systems Cornerstone

- Unit 2 Pressurizer Power Operated Relief Valves (PORVs)
- Unit 2 East Charging System Train
- Unit 2 West Component Cooling Water System Train
- Unit 2 West Essential Service Water Pump

These activities were selected based on their potential risk significance relative to the reactor safety cornerstones. As applicable for each of the above activities, the inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk analyst and/or shift technical advisor, and verified that plant conditions were consistent with the risk assessment. The inspectors also reviewed TS requirements and walked down portions of redundant

safety systems, when applicable, to verify that risk analysis assumptions were valid and applicable requirements were met.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed the following CRs to ensure that either: (1) the condition did not render the involved equipment inoperable or result in an unrecognized increase in plant risk, or (2) the licensee appropriately applied TS limitations and appropriately returned the affected equipment to an operable status.

Barrier Integrity Cornerstone

- CR 02113065 — 2-OHP-4030-STP-007E, East Containment Spray System Operability Test, Does Not Have a Maximum of 60 Gallons Per Minute Water Flow Rate from the Spray Additive Tank Line with Spray Pump on Recirculation as Stated in TS Bases Section 3/4.6.2.2
- CR 02264018 — Unit 1 Control Room Door (1-DR-AUX412B) Was Propped Open Without Specific Procedure Guidance to Allow it to Be Open

Mitigating Systems Cornerstone

- CR 02122057 — 1-IMO-911 Could Not Be Set Within the Prescribed Thrust Limitations Provided in VDS-1-IMO-911
- CR 02116032 — 1-HV-AES-2 Exhaust Fan Was Found in Standby With its Backdraft Damper Stuck Partially Open and the Fan Rotating Backwards
- CR 02125016 — Potentially High Boron Concentration (Above 2600 Parts Per Million) in Unit 1 Reactor Coolant System in Mode 4 Shortly Before Entering Mode 5

In addition, the inspectors reviewed the issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for issues potentially affecting the operability of safety related SSCs that were documented in selected CRs.

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds (71111.16)

.1 Semiannual Review of the Cumulative Effect of Operator Workarounds

a. Inspection Scope

The inspectors reviewed the cumulative effect of operator workarounds, control room deficiencies, and degraded conditions on equipment availability, initiating event frequency, and the ability of the operators to implement abnormal or emergency operating procedures. During this review the inspectors considered the cumulative effects of operator workarounds on the following:

- the reliability, availability and potential for mis-operation of a system;
- the ability of operators to respond to plant transients or accidents in a correct and timely manner; and
- the potential to increase an initiating event frequency or affect multiple mitigating systems.

In addition, the inspectors reviewed the issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for issues potentially affecting the functionality of mitigating systems or on the operators' response to initiating events that were documented in selected CRs.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications (71111.17)

a. Inspection Scope

The inspectors reviewed the engineering analyses, modification documents and design change information associated with the following permanent plant modification:

Barrier Integrity Cornerstone

- Design Change 1-DCP-5173, "Unit 1 Provide Essential Service Water Minimum Flow Path Via Containment Spray System Heat Exchanger," Revision 0
- Design Change 2-DCP-5174, "Unit 2 Provide Essential Service Water Minimum Flow Path Via Containment Spray System Heat Exchanger," Revision 0

The modification provided a minimum flow path for the ESW pumps through the containment spray system heat exchangers to eliminate a potential common mode failure concern for the emergency diesel generators. During this inspection, the inspectors evaluated the implementation of the design to verify that:

- the compatibility, functional properties, environmental qualifications, seismic qualification, and classification of materials and replacement components were acceptable;
- the affected operating procedures and training were identified and necessary changes were completed;
- the pressure boundary integrity was not compromised;
- the implementation of the modifications did not impair key safety functions;
- no unintended system interactions occurred;
- the system performance characteristics affected by the modification continued to meet the design basis; and
- the modification design assumptions were appropriate.

Completed activities associated with the implementation of the modification were also inspected and the inspectors discussed the modification with the responsible engineers and operations staff. In addition, the inspectors reviewed the applicable sections of the TS, UFSAR, and 10 CFR 50.59 safety evaluation associated with the design change packages.

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed the post maintenance testing requirements associated with the following scheduled maintenance activities:

Barrier Integrity Cornerstone

- Unit 1 East Containment Spray System Train Maintenance

Mitigating Systems Cornerstone

- Unit 2 AB Emergency Diesel Generator Maintenance
- Unit 2 North Safety Injection Pump Maintenance
- Unit 2 East Auxiliary Feedwater Pump Maintenance
- Unit 2 East Centrifugal Charging System Train Maintenance
- Unit 2 East Component Cooling Water System Train Maintenance
- Unit 2 West Component Cooling Water System Train Maintenance
- Unit 2 West Essential Service Water Pump Replacement

The inspectors selected these post maintenance testing activities because the systems were identified as risk significant in the licensee's risk analysis. The inspectors reviewed the scope of the work performed and evaluated the adequacy of the specified post maintenance testing. The inspectors verified that the post maintenance testing was performed in accordance with approved procedures, that the procedures clearly stated acceptance criteria, and that the acceptance criteria were met. During this inspection,

the inspectors interviewed operations, maintenance and engineering department personnel and reviewed the completed post maintenance testing documentation.

In addition, the inspectors reviewed the issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for post maintenance testing related issues documented in selected CRs.

b. Findings

No findings of significance were identified.

1R20 Refueling and Outage Activities (71111.20)

.1 Unit 2 Forced Outage

a. Inspection Scope

On July 27, 2002, the licensee performed a reactor shutdown to replace a circulating water pump discharge valve that had failed closed. Shear pins that connect the number 23 circulating water pump discharge valve's (2-WMO-23) disk to the stem severed, causing the valve to fail closed. The unit was ramped down at approximately 20 percent per hour and the reactor was tripped at 11:50 p.m. from 15 percent power. The licensee entered Mode 4 (Hot Shutdown) to perform additional maintenance work. The licensee performed a reactor startup and synchronized the unit to the grid on August 3, 2002.

The inspectors evaluated the licensee's conduct of forced outage activities to assess the licensee's control of plant configuration and risk management actions. The inspectors reviewed the cause for the valve failure as well as the extent of condition of other circulating water pump discharge valves. The inspectors observed portions of the restart activities to verify that requirements of the TS and administrative procedure requirements were met prior to changing operational modes or plant configurations.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

For the surveillance test procedures listed below, the inspectors observed selected portions of the surveillance test and/or reviewed the test results to determine whether risk significant systems and equipment were capable of performing their intended safety functions and to verify that testing was conducted in accordance with applicable procedural and TS requirements:

- 01-IHP-4030-SMP-103, "Reactor Coolant Flow Protection Set III Functional Test and Calibration," Revision 4
- 01-IHP-4030-SMP-104, "Delta T/Tavg Protection Set I Functional Test and Calibration," Revision 4
- 02-OHP-4030-STP-30, "Daily and Shiftly Surveillance Checks," Revision 39
- 02-IHP-4030-STP-511, "Train B Reactor Protection System and Engineered Safety Features Reactor Trip Breaker and Solid State Protection System Automatic Trip/Actuation Logic Functional Test," Revision 4
- 12-EHP-6040-PER-323, "Flux Mapping System Operation and Supportive Data Collection," Revision 4a

The inspectors reviewed the test methodology and test results in order to verify that equipment performance was consistent with safety analysis and design basis assumptions.

In addition, the inspectors reviewed the issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for surveillance testing related issues documented in selected CRs.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed the temporary modification listed below to verify that the installation was consistent with design modification documents and that the modification did not adversely impact system operability or availability:

- 2-TM-00-57, "On-line Leak Repair of 2-FW-118-4," Revision 1

The temporary modification installed a temporary leak seal on the south bearing cover for the number 4 steam generator feedwater header containment isolation check valve (2-FW-118-4). A steam leak developed at the flange where the cover is fastened to the valve body that could not be corrected by normal maintenance practices with the unit on line. The inspectors verified that configuration control of the modification was correct by reviewing design modification documents and confirmed that appropriate post-installation testing was accomplished. The inspectors interviewed engineering and maintenance department personnel and reviewed the design modification documents and the 10 CFR 50.59 evaluation against the applicable portions of the UFSAR.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

The inspectors observed the conduct of the licensee's third quarter announced emergency planning drill that was conducted in the licensee's control room simulator and emergency response facilities on August 22, 2002. The inspection effort was focused on evaluation of the licensee's classifications, notifications, and protective action recommendations for the simulated event. The inspectors also evaluated the licensee's conduct of the training evolution, including the licensee's critique of performance to identify weaknesses and deficiencies.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control to Radiologically Significant Areas (71121.01)

.1 Plant Walkdowns and Radiological Boundary Verification

a. Inspection Scope

The inspector conducted walkdowns of selected radiologically controlled areas to verify the adequacy of radiological area boundaries and postings. Specifically, the inspector walked down all locked high radiation area (LHRA) boundaries (excluding LHRAs located within other LHRAs) in the Auxiliary Building to determine if these areas and selected high radiation areas were properly posted and controlled in accordance with 10 CFR 20 and the licensee's TS. The inspector also observed the radiological conditions of work areas within those high and locked high radiation areas walked down to assess the radiological housekeeping and contamination controls.

b. Findings

No findings of significance were identified.

.2 High Risk Significant, High Radiation Area, and Very High Radiation Area Access Controls

a. Inspection Scope

The inspector reviewed the licensee's procedures and practices for the control of access to radiologically significant areas (high, locked high, and very high radiation areas) and assessed compliance with those procedures, the licensee's TS and the requirements of 10 CFR 20.1601 and 20.1602. Implementation of a recently developed procedure and technical/administrative guidelines for the verification and control of radiologically significant areas were also reviewed for adequacy and conformity with regulatory requirements. In particular, the inspector reviewed the licensee's practices for the control of keys to LHRAs and very high radiation areas including the review of key issuance and tracking logs and key inventory surveillance records for 2002 thru July, the use of access control guards to control entry into such areas, and the licensee's methods for independently verifying proper closure and latching of LHRA doors. The inspector also reviewed evolving communication plans and interface practices between radiation protection (RP) and plant operations staff to assess the licensee's communication protocols relevant to changing plant conditions that could alter radiological area status. Additionally, the inspector attended a pre-job briefing for the transfer of a reactor cavity filter from one LHRA to another, to determine if radiological information was adequately exchanged and if plans for area access control were sound and met regulatory requirements.

b. Findings

No findings of significance were identified.

.3 Radiation Work Permit Reviews

a. Inspection Scope

The inspector reviewed several radiation work permits (RWPs) for work that was recently completed in radiologically significant areas. Electronic dosimeter alarm setpoints for both dose rate and integrated dose were evaluated to verify conformity with work area radiological conditions given the work activity. The inspector also reviewed work instructions specified in the RWPs and in pre-job briefing information in order to evaluate access control restrictions for compliance with TS and the licensee's access control procedures.

b. Findings

No findings of significance were identified.

.4 Control of Non-Fuel Materials Stored in the Spent Fuel Pool

a. Inspection Scope

The inspector reviewed the licensee's radiological controls and practices for the storage of highly activated or contaminated materials (non-fuel) in the spent fuel pool. A foreign material exclusion (FME) maintenance procedure which contained provisions for temporary storage of material in the spent fuel pool was reviewed along with the most recent pool inventory record, and a walkdown of the spent fuel pool area was conducted. The inspector discussed with RP staff the administrative and physical controls that would be considered should temporary storage of highly activated/contaminated material in the spent fuel pool be necessary to ensure consistency with the licensee's FME procedure and with Regulatory Guide 8.38, Information Notice 90-33, and applicable Health Physics Positions in NUREG/CR-5569. Plans to develop a RP procedure or expand the existing FME procedure to fully address the regulatory guidance and standardize the licensee's practices were discussed with RP management.

b. Findings

No findings of significance were identified.

.5 Identification and Resolution of Problems

a. Inspection Scope

The inspector reviewed the licensee's CR database and several individual CRs related to access, posting and key controls for radiologically significant areas that were generated in 2002 through July 22, 2002. The review was performed to determine the scope and extent of problems identified by the licensee. The inspector evaluated the effectiveness of the licensee's corrective action process to identify and characterize individual problems and potential trends and to develop corrective actions to prevent recurrence. The inspector also reviewed the licensee's planned actions to address deficiencies with its access control program that were identified during a recent industry assist inspection.

b. Findings

No findings of significance were identified.

2OS3 Radiation Monitoring Instrumentation and Protective Equipment (71121.03)

.1 Walkdowns of Radiation Monitoring Instrumentation

a. Inspection Scope

The inspector conducted walkdowns of selected area radiation monitors (ARMs) to verify they were located as described in the UFSAR, to determine if they were optimally positioned relative to the potential source(s) of radiation they were intended to monitor,

and to assess their material condition. The inspector also reviewed the status of repair or troubleshooting activities associated with those ARMs that the inspector observed had work request tags, to verify that instrument problems were being addressed in an appropriate and timely manner.

b. Findings

No findings of significance were identified.

.2 Tests and Calibrations of Radiation Monitoring Instrumentation

a. Inspection Scope

The inspector selectively reviewed radiological instrumentation associated with monitoring transient high and/or very high radiation areas and instruments used for remote emergency assessment to verify that the instruments had been calibrated consistent with industry standards and in accordance with station procedures. The inspector reviewed alarm setpoints for selected ARMs to verify that they were established consistent with the UFSAR and TS. Specifically, the inspector reviewed calibration procedures and the most recent calibration records and/or source characterization/verification documents for the following radiation monitoring instrumentation and instrument calibration equipment:

- Unit 1 North Seal Water Injection Filter Cubicle ARM
- Unit 2 South Seal Water Injection Filter Cubicle ARM
- Unit 1 West Centrifugal Charging Pump Room ARM
- Unit 1 and Unit 2 High Range Containment Radiation Monitors
- Radcal Corporation Model 20X5-180 Ion Chamber and Model 2025 Electrometer (Instrument Calibrator Output Measurement Equipment)
- J. L. Shepherd Model M89 Instrument Calibrators

The inspector evaluated RP technician performance while selected instruments used for surveys of personnel and equipment prior to unconditional release from the radiologically controlled area were source checked, to determine if those checks were completed adequately and in conformance with station procedures. Alarm setpoints for these instruments were also reviewed to determine if they were established at levels consistent with industry standards and regulatory guidance provided in Health Physics Positions Number 72 and Number 250 of NUREG/CR-5569. An inspector identified deficiency with the methodology of source checking the portal radiation monitors used at station egress locations was assessed to verify that it did not impact instrument operability or compromise detector alarm function verification. Additionally, the inspector reviewed the most recent calibration record and procedure for one of the licensee's portal monitors used at the north guard post to monitor staff as they leave the plant restricted area. The review was performed to ensure the monitor was calibrated adequately and as required by procedure and that the instrument's alarm setpoint was established consistent with industry guidance.

b. Findings

No findings of significance were identified.

.3 Respiratory Protection Program

a. Inspection Scope

The inspector reviewed aspects of the licensee's respiratory protection program for compliance with the requirements of Subpart H of 10 CFR 20, and to ensure that self-contained breathing apparatus (SCBA) were properly maintained and ready for emergency use. Specifically, the inspector reviewed SCBA equipment inspection, functional test and maintenance procedures and records for selected periods in 2002 through July, for all SCBA units staged for emergency use and located in various areas of the plant. The review was performed to determine if the equipment was properly maintained consistent with industry standards and station procedures.

The inspector walked-down the SCBA air bottle filling station in the Operations Support Center and SCBA equipment storage locations in the Unit 1 and Unit 2 Control Rooms, the Operations Support Center, the RP Access Control Building, and at the 633 foot elevation of the Turbine Building. The inspector examined several SCBA units that were stored in these areas to assess their material condition, and to verify that air bottle hydrostatic tests were current and that bottles were pressurized to meet procedural requirements. The inspector discussed SCBA equipment inspection and functional testing with a RP technician that performed these activities to verify that surveillances were completed adequately and that the equipment was properly maintained. The inspector also reviewed training certificates and training matrices for selected RP staff to determine if those licensee personnel performing SCBA equipment maintenance and inspection were qualified consistent with industry standards.

The inspector performed a review to determine if a sufficient cadre of the licensee's emergency response organization that could be called upon to perform vital emergency response activities that required use of respiratory protection equipment were trained and qualified in SCBA use. Specifically, the inspector reviewed respiratory protection training and SCBA qualification records for current operations on-shift staff, the station's fire brigade and members of the licensee's RP and maintenance staffs to ensure personnel qualifications were maintained consistent with the licensee's emergency plan and procedures.

b. Findings

No findings of significance were identified.

.4 Identification and Resolution of Problems

a. Inspection Scope

The inspector reviewed the results of a self-assessment that focused on SCBA qualifications and that was completed by the licensee's emergency preparedness staff in

January 2001, and the licensee's CR database and several individual CRs related to radiation monitoring instrumentation and SCBA equipment generated in 2002 through July 22, 2002. The review was performed to evaluate the effectiveness of the licensee's self-assessment and corrective action program to identify problems, to characterize and prioritize problems, and to develop appropriate corrective actions. Plans to address inspector identified deficiencies with SCBA training relative to air bottle change-out and to ensure that all appropriate emergency response staff consistently maintain SCBA qualifications were discussed with station and RP management.

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 Walkdowns of Liquid and Gaseous Effluent Monitoring and Control Systems

a. Inspection Scope

The inspectors performed walkdowns of the major components of the liquid and gaseous effluent monitoring and release systems, including point of discharge effluent radiation monitors, liquid radioactive waste (radwaste) processing tanks, gas decay tanks and steam generator blowdown flash tanks, to verify that the current system configuration was as described in the Updated Final Safety Analysis Report (UFSAR) and was consistent with the Offsite Dose Calculation Manual (ODCM), and to assess equipment material condition.

The inspectors also walked down the radwaste system control panel, reviewed the status of work requests for selected effluent related systems and discussed processing equipment reliability, use and operating practices with environmental staff.

b. Findings

No findings of significance were identified.

.2 Radioactive Effluent Release Data, Dose Calculations, and ODCM Changes

a. Inspection Scope

The inspectors reviewed the 1999, 2000, and 2001 Annual Radioactive Effluent Release Reports and selected radioactive effluent release data for 2002 through September 2002 to verify that the radioactive effluent control program was implemented as described in the ODCM and to ensure that any anomalies in the release data were adequately understood by the licensee and were properly assessed and reported. The inspectors evaluated the licensee's methodology for the calculation of offsite dose and selectively reviewed results of both liquid and gaseous effluent sample analyses for

2002, to verify that the licensee properly calculated dose from effluents consistent with the ODCM. The inspectors also reviewed revisions made to the ODCM in calendar years 2000 and 2001 and the justifications for other than editorial changes, to verify they were completed and reported in accordance with Technical Specifications and the ODCM.

b. Findings

No findings of significance were identified.

.3 Liquid and Gaseous Effluent Releases

a. Inspection Scope

As there were no liquid batch releases performed during the inspection, the inspectors reviewed the release packages for two liquid effluent batch release completed in 2001 and for one completed in 2002. The review was conducted to verify that the licensee's release procedures and practices, including dose projections to members of the public and use of station specific scaling factors, were technically sound and conformed to ODCM methodology and Technical Specification requirements. The inspectors also reviewed selected batch (containment pressure reliefs and containment purge/vent) and continuous gaseous effluent release data including results of chemistry sample analyses, to independently verify that the data was properly used to complete calculations of offsite dose consistent with ODCM methodology and the licensee's procedures. For those release packages reviewed, the inspectors also examined the discharge monitor alarm set points and the set point calculation methodology to verify they were established in accordance with the ODCM and the licensee's procedure. The inspectors accompanied a chemistry technician during a weekly change-out and analysis of the particulate and iodine unit vent effluent samples, to verify that practices and analytical techniques were technically sound and consistent with procedure. Additionally, the inspectors reviewed chemistry data for selected periods in 2002 to verify that compensatory samples were taken and analyzed as required by the ODCM during periods when effluent monitors were out of service.

b. Findings

No findings of significance were identified.

.4 Liquid and Gaseous Effluent Monitor Calibration

a. Inspection Scope

The inspectors reviewed records of instrument calibrations performed since the last inspection for selected point of discharge effluent radiation monitors and flow meters, to determine if they had been calibrated consistent with industry standards and in accordance with station procedures and the ODCM. Specifically, the inspectors reviewed the calibration records for the following effluent radiation detectors and flow monitors:

- Unit 2 Condenser Air Ejector Exhaust
- Unit 1 and Unit 2 Vent Exhaust
- Unit 1 and Unit 2 Steam Generator Blowdown
- Unit 1 and Unit 2 Essential Service Water (East Heat Exchanger)
- Unit 1 and Unit 2 Essential Service Water (West Heat Exchanger)
- Common Unit Liquid Radwaste Discharge Line
- Unit 1 Gland Seal Exhaust Flow Monitor
- Unit 1 Vent Flow Monitor
- Unit 2 Gland Seal Exhaust Flow Monitor
- Unit 2 Vent Flow Monitor

The inspectors also reviewed supporting health physics calculations that established calibration constants, reference source responses and alarm set point values for these monitors, to verify the technical viability of the calibration program and for compliance with ODCM criteria. Additionally, the inspectors examined effluent monitor performance and overall radiation monitoring system health information for 2001-2002 and discussed monitor troubleshooting efforts and associated remedial actions with the assigned system engineer, to assess the adequacy of the licensee's efforts to identify problems and improve the overall reliability of the effluent radiation monitoring and control system.

b. Findings

No findings of significance were identified.

.5 Air Cleaning System Surveillance Tests

a. Inspection Scope

The inspectors reviewed the most recent results for both trains of the Unit 1 and Unit 2 Engineered Safety Features (ESF) ventilation system exhaust air filter testing to verify that test methodology, frequency and test results met Technical Specification requirements. Specifically, the inspectors evaluated the test methodology and reviewed the test results of in-place high efficiency particulate air (HEPA) and charcoal absorber penetration tests, laboratory tests of charcoal absorber methyl iodide penetration, in-place combined HEPA filter and charcoal absorber train pressure drop tests and tests to demonstrate automatic start of the standby fans.

b. Findings

No findings of significance were identified.

.6 Analytical Instrumentation Quality Control and Inter-laboratory Comparison Program

a. Inspection Scope

The inspectors reviewed the chemistry department's quality control data for selected periods in 2002 through September for those instrumentation systems used to quantify effluent releases. The review was performed to assess equipment performance and to

verify that testing was completed consistent with station procedures. This included a review of the chemistry counting laboratory gamma spectroscopy systems and liquid scintillation counters. The inspectors also reviewed the most recent energy calibration records, efficiency checks and lower limit of detection (LLD) determinations for all spectroscopy systems used to analyze effluent samples. The review was performed to determine if calibration and efficiency check acceptance criteria and ODCM specified LLDs were met and if the calibrations were conducted in accordance with procedure.

The inspectors reviewed the results of the first and second quarter 2002 radiochemistry inter-laboratory cross checks to determine if the cross check program was adequately implemented consistent with industry standards and to verify the quality of the radioactive effluent analyses performed by the licensee.

b. Findings

No findings of significance were identified.

.7 Identification and Resolution of Problems

a. Inspection Scope

The inspectors reviewed a 2001 radiation protection department self-assessment of effluent sampling/analysis and ODCM implementation, performance assurance department field observations reports and audits completed in 2001 through September 2002, and condition reports (CRs) generated during approximately the 12-month period preceding the inspection that related to ODCM implementation and the liquid and gaseous effluent monitoring and control program. The documents were reviewed to evaluate the licensee's ability to assess the effluent control program, to identify repetitive problems or trends, contributing causes and extent of condition, and to implement corrective actions to achieve lasting results.

b. Findings

No findings of significance were identified.

3. SAFEGUARDS

Cornerstone: Physical Protection

3PP3 Response to Contingency Events (71130.03)

The Office of Homeland Security (OHS) 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. NRC Regulatory Information Summary (RIS) 2002-12a, dated August 19, 2002, "NRC 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 NRC issued a Safeguards Advisory to reactor licensees to implement the protective measures described in RIS 2002-12a in response to the Federal Government's declaration of threat level "Orange." Subsequently, on September 24, 2002, the OHS downgraded the national security threat condition to "Yellow" and a corresponding reduction in the risk of a terrorist threat.

The inspectors interviewed licensee personnel and security staff, observed the conduct of security operations, and assessed licensee implementation of the threat level "Orange" 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

4OA1 Performance Indicator Verification (71151)

.1 Unplanned Scrams per 7000 Critical Hours and Scrams with Loss of Normal Heat Removal

a. Inspection Scope

Initiating Events Cornerstone

The inspectors verified the Unplanned Scrams per 7000 Critical Hours and the Scrams with Loss of Normal Heat Removal performance indicators for both units. The inspectors reviewed each licensee event report (LER) from October 2001 to June 2002, determined the number of scrams that occurred, evaluated each of the scrams against the performance indicator definitions, and verified the licensee's calculation of critical hours for both units.

b. Findings

No findings of significance were identified.

.2 Unplanned Power Changes per 7000 Critical Hours

a. Inspection Scope

Initiating Events Cornerstone

The inspectors verified the Unplanned Power Changes per 7000 Critical Hours performance indicator for both units. The inspectors reviewed power history data for both operating units from October 2001 to June 2002, determined the number of power

changes greater than 20 percent full power that occurred, evaluated each of those power changes against the performance indicator definition, and verified the licensee's calculation of critical hours for both units.

b. Findings

No findings of significance were identified.

.3 Safety System Unavailability

a. Inspection Scope

Mitigating Systems Cornerstone

The inspectors verified the following performance indicators for both units:

- Safety System Unavailability - Emergency AC [Alternating Current] Power,
- Safety System Unavailability - Auxiliary Feedwater,
- Safety System Unavailability - High Pressure Safety Injection, and
- Safety System Unavailability - Residual Heat Removal.

The inspectors reviewed operating logs, maintenance history and surveillance test history for unavailability information for these systems from October 2001 to June 2002. The inspectors also verified the licensee's calculation of required hours for both units and evaluated applicable safety system equipment unavailability against the performance indicator definition. The inspectors interviewed engineering and operations staff to determine whether the performance indicator data was being collected and reported consistent with the guidance contained in NEI [Nuclear Energy Institute] 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 2.

b. Findings

No findings of significance were identified.

.4 Occupational Exposure Control Effectiveness

a. Inspection Scope

Occupational Radiation Safety Cornerstone

The inspector evaluated the RP department's performance indicator data analysis methods and associated records to determine if the licensee had accurately assessed and reported the performance indicator for the Occupational Radiation Safety Cornerstone in accordance with the criteria specified in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revisions 1 and 2. Specifically, the inspector reviewed the licensee's CR database and selected CRs generated between December 2001 and July 2002, and selected radiologically controlled area egress transaction dose information and electronic dosimetry alarm reports generated in 2002 through July. The review was performed to identify any access control or unintended

dose performance indicator occurrences that were not recognized by the licensee and to verify the licensee's performance indicator results for the Occupational Radiation Safety Cornerstone. The inspector also reviewed performance indicator verification records completed by the RP staff for the first two quarters of 2002, and discussed performance indicator data collection and analysis processes with the RP department's performance indicator data steward to determine if the program was implemented consistent with the licensee's performance indicator procedure and the NEI guideline.

b. Findings

No findings of significance were identified.

.5 Radiological Effluent Technical Specification (RETS)/ODCM Radiological Effluent Occurrence PI

a. Inspection Scope

The inspectors reviewed the licensee's assessment of its public radiation safety performance indicator for RETS/ODCM radiological effluent occurrences to determine if the indicator was adequately assessed and reported. Specifically, the inspectors reviewed CRs generated during the 12-months preceding the inspection to identify any potential occurrences such as unmonitored, uncontrolled or improperly calculated effluent releases that may have impacted offsite dose. Also, the inspectors evaluated the licensee's methods for determining offsite dose and selectively verified that gaseous and liquid effluent release data and associated offsite dose calculations performed since this indicator was last reviewed in November 2001 were accurate. The inspectors discussed the RETS/ODCM PI data collection and analysis process with the data steward for this indicator to verify that the indicator was assessed consistent with industry guidelines as provided by the applicable revision of Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline."

b. Findings

No findings of significance were identified.

4OA3 Event Follow-up (71153)

.1 Unit 2 Reactor Trip and Restart Following Loss of Main Condenser Vacuum

a. Inspection Scope

On July 22, 2002, Unit 2 experienced an automatic reactor trip in response to a main turbine trip on low condenser vacuum. Immediately prior to the main turbine trip, operators were flushing the main condenser waterboxes of debris by cycling the circulating water inlet isolation valves. The licensee did not expect to have condenser vacuum lower to below the turbine trip setpoint and determined that the apparent cause for the loss of vacuum condition was degraded condenser performance. The licensee restarted Unit 2 on July 23, 2002, after cleaning and inspecting the main condenser water boxes. The inspectors assessed control room operator performance immediately

following the reactor trip, reviewed the post trip report, and observed portions of the reactor restart activities. The inspectors also reviewed the LER for this event.

b. Findings

(Closed) LER 50-316-2002-006-00: "Unit 2 Reactor Trip Due to Low Condenser Vacuum." The inspectors concurred with the licensee's conclusion that the safety significance of this event was minimal. The licensee entered this event into its corrective action program as CR 02203001. This event did not constitute a violation of NRC requirements. This LER is closed.

.2 Pressurizer Power Operated Relief Valve Inadvertently Opened During Testing Resulting in a Loss of Reactor Coolant System Inventory and an Unusual Event

a. Inspection Scope

On June 5, 2002, with Unit 1 in Mode 4 (Hot Shutdown), pressurizer PORV 1-NRV-153 inadvertently opened while testing actuation logic circuitry for pressurizer PORV 1-NRV-151. Approximately 100 gallons of reactor coolant was released to the pressurizer relief tank. The release rate exceeded the 25 gallons-per-minute limit established for declaring an Unusual Event in accordance with the licensee's Emergency Plan. The inspectors reviewed the circumstances associated with this event, including the root cause determination, operator response during the event, and corrective actions.

b. Findings

An Apparent Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed. The licensee failed to provide an appropriate procedure for testing the Unit 1 pressurizer PORVs, causing an uncontrolled release of reactor coolant system inventory to the pressurizer relief tank. Pending additional evaluation, the safety significance of this issue is "To Be Determined" (TBD).

Discussion

On June 5, 2002, while performing testing to verify the automatic opening of pressurizer PORV 1-NRV-151, pressurizer PORV 1-NRV-153 also opened unexpectedly. With the associated PORV block valve for 1-NRV-153 open, approximately 100 gallons of reactor coolant was released to the pressurizer relief tank. The reactor coolant inventory transfer was immediately apparent to control room operators via alarms and indications, resulting in a 15 second response time for operators to close the block valve and terminate the reactor coolant discharge.

Three pressurizer PORVs are provided on each unit. The PORVs are designed to operate manually and automatically through a complex series of control and actuation circuits. The control circuits include interlocks and common actuation signals for the PORVs and pressurizer heaters that are needed to control pressurizer pressure. A common signal operates both 1-NRV-151 and 1-NRV-153. Another common signal operates the third PORV (1-NRV-152) and energizes/de-energizes pressurizer heaters.

The TS require periodic testing of the circuitry to verify proper operation from the pressure sensing instruments through operation of the valves and heaters. One of the required tests performed during refueling outages verifies that each valve will open upon receipt of a signal from the actuation circuitry.

The licensee recently changed the surveillance test procedure to allow testing each PORV individually rather than together, as the testing was previously conducted. The licensee's root cause evaluation concluded that the procedure change did not contain adequate instructions to establish initial test conditions to prevent unintended opening of both interlocked valves 1-NRV-151 and 1-NRV-153 while one valve was being tested. The licensee subsequently revised the procedure and performed the testing satisfactorily on June 6, 2002.

Analysis

The inspectors assessed this finding using the Significance Determination Process (SDP). The inspectors concluded that this issue could be reasonably viewed as a precursor to a significant event and was therefore more than a minor concern. The inspectors also concluded that this finding was associated with the initiating events cornerstone and adversely affected the cornerstone objective. Specifically, the uncontrolled release of reactor coolant system inventory upset plant stability and challenged the inventory control safety function. Because Unit 1 was in a shutdown mode during this period, the inspectors performed a Phase 1 SDP review of this issue using the guidance provided in NRC Inspection Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process." Based on the above information, the inspectors concluded that the most appropriate Appendix G checklist to use for this issue was the checklist for "Pressurized Water Reactor Hot Shutdown Operation - Time to core boiling less than 2 hours." Because, operator intervention was required to manually close the affected PORV block valve, the inspectors concluded that the unit was in a configuration where a single active failure or personnel error could have resulted in a rapid loss of reactor coolant system inventory as described in Section II.B.(2) of the checklist. Consequently, the inspectors concluded that this issue increased the likelihood of a loss of reactor coolant system inventory and therefore required a Phase 2 SDP analysis. The inspectors discussed the safety significance of this issue with the Regional Senior Reactor Analyst; and, pending the completion of a Phase 2 analysis, the safety significance of this issue is to be determined.

Enforcement

10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires, in part, that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Contrary to the above, the licensee failed to provide a procedure of a type appropriate to the circumstances for testing the Unit 1 pressurizer PORVs, which is an activity affecting quality. Specifically, the instructions contained in 1-IHP-4030-102-017, "Pressurizer Power Operated Relief Valve (PORV) Actuation Channel Calibration with Valve Operation (for Modes 1, 2, and 3)," Revision 1, failed to provide adequate control of pressurizer PORVs 1-NRV-151 and 1-NRV-153, which have a common automatic

opening signal. This issue was self-revealed on June 5, 2002, when pressurizer PORV 1-NRV-153 inadvertently opened while testing actuation logic circuitry for 1-NRV-151, causing an uncontrolled release of reactor coolant system inventory to the pressurizer relief tank. This issue is considered to be an Unresolved Item pending a final safety significance determination (URI 50-315-02-06-01(DRP)). The licensee entered this violation into its corrective action program as CR 02157039.

.3 (Closed) LER 50-315-2002-003-00: "Main Steam Safety Valves Exceed Allowable Lift Setpoints." During surveillance testing of the Unit 1 main steam safety valves (MSSVs) on May 2 and 3, 2002, the licensee identified that 7 of 20 MSSVs failed to meet the TS acceptance criteria for the lift setpoint. As a result of each MSSV test failure, the licensee entered the appropriate TS Limiting Condition for Operation and restored each valve to an operable condition within the TS allowed outage time. The valve lift test failures were due to metallic bonding between the stainless steel valve disk and nozzle resulting in an increase in each of the valve's lift setpoint. The licensee performed an evaluation of the impact of the MSSV surveillance testing results on the transient and accident analysis described in the UFSAR and concluded that the out of tolerance conditions were bounded by the 110 percent secondary system design pressure assumed in the analysis. The inspectors reviewed and concurred with the licensee's evaluation. The licensee entered this event into its corrective action program as CR 02122063, CR 02123003, CR 02123037, CR 02123039, CR 02123049, CR 02123050, and CR 02123053. This event did not constitute a violation of NRC requirements. This LER is closed.

.4 (Closed) LER 50-315-2002-005-00: "Unit 1 Manual Trip Due to Trip of East Main Feedwater Pump." On June 14, 2002, operators manually tripped Unit 1 in response to a main feedwater pump trip. The feedwater pump condenser became clogged with zebra mussel shells and lost vacuum when a circulating water pump was started, transporting debris to the feedwater pump condenser. The inspectors concurred with the licensee's conclusion that the safety significance of this event was minimal. The licensee entered this event into its corrective action program as CR 02165064. This event did not constitute a violation of NRC requirements. This LER is closed.

.5 (Closed) LER 50-315-2002-006-00: "Switchyard Fire Results in Violation of Technical Specification 3.0.5." On June 12, 2002, an explosion of a current transformer in a 345 kilo-volt breaker and fire in the switchyard resulted in the loss of the preferred offsite power source to the Unit 1 and Unit 2 ESW pumps. Since the Unit 2 East ESW pump was out-of-service for planned maintenance and the Unit 1 West ESW pump was considered inoperable in accordance with TS 3.7.4.1 because the cross-tie valves between the units were open to maintain the Unit 2 East ESW header pressurized, the licensee entered TS 3.0.5 for both units. The licensee requested and received enforcement discretion for an additional 10 hours to accomplish restoration of the Unit 2 East ESW pump to preclude a required dual unit Mode 3 (Hot Standby) entry. The inspectors reviewed the event and the licensee's request for enforcement discretion in NRC Inspection Report 50-315/316-02-07(DRP). The inspectors concluded that the enforcement discretion was necessitated by the coincidental performance of pre-planned maintenance on the Unit 2 East ESW pump during the event; therefore, entry into TS 3.0.5 was not due to a failure to comply with regulatory requirements. The inspectors determined that the information provided in LER 50-315-2002-006-00 did not

raise any new issues or change the conclusions of the initial reviews documented in NRC Inspection Report 50-315/316-02-07(DRP). The NRC staff concluded that there was no net increase in risk associated with extending the allowed outage time for TS 3.0.5 from 2 hours to a total of 12 hours. The licensee entered this event into its corrective action program as CR 02163045. This violation of TS 3.0.5 is a violation of minor significance that is not subject to enforcement action in accordance with Section VI of the NRC's Enforcement Policy. This LER is closed.

.6 (Closed) LER 50-315-2002-007-00: "Technical Specification 3.3.3.1 Required Special Report for Inoperable Radiation Monitors." The action statement for TS 3.3.3.1 associated with radiation monitors 1-VRA-1310 (upper containment high range radiation monitor) and 1-MRA-1702 (steam generator number 3 PORV outlet monitor) requires that the radiation monitors be returned to operable status within 7 days of the event or that a special report be written and issued to the NRC within 14 days of the event. On June 23, 2002, the licensee identified that radiation monitor 1-VRA-1310 had been inoperable for 12 days as a result of maintenance performed on another radiation monitor. At the time of the maintenance activity, the licensee was unaware of the interactions between the two monitors. During its review of that event, the licensee identified that a human performance error during a calibration on April 12, 2002 had rendered another radiation monitor 1-MRA-1702 inoperable for a period of 79 days. At the time of discovery, the licensee corrected the problem and entered the issues into its corrective action program as CR 02174004 and CR 02199084. In both cases, the time of discovery resulted in the licensee exceeding the requirement for a 14-day special report. The failure to issue a special report to the NRC within 14 days of the event is a violation of TS 3.3.3.1. This finding constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section VI of the NRC's Enforcement Policy. This LER is closed.

.7 (Closed) LER 50-315-2000-008-00: "Failure to Test Essential Service Water Valves in Accordance with Technical Specifications." This issue was previously discussed in Section E2.2 of NRC Inspection Report 50-315/316-00-01(DRP). The inspectors identified that the ESW outlet valves for the component cooling water heat exchangers were tested in one direction only; however, testing the valves to both open and close was necessary to meet TS surveillance requirement 4.7.4.1.b. The licensee's failure to adequately test these valves is a violation of TS 4.7.4.1.b. The inspectors reviewed the revised test procedures that included the required test provisions. Because these valves subsequently passed surveillance testing, this issue is considered to be of minor safety significance. The licensee entered this event into its corrective action program as CR P-00-04744 and CR 00314038. This finding constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section VI of the NRC's Enforcement Policy. This LER is closed.

.8 (Closed) LER 50-315-2000-008-01: "Failure to Test Essential Service Water Valves in Accordance with Technical Specifications," Supplement 1. The licensee submitted Supplement 1 to LER 50-315-2000-008-00 to provide additional information concerning the analysis of the event, the cause, and corrective actions. The inspectors determined that the information provided in Supplement 1 to LER 50-315-2000-008-00 did not raise any new issues or change the conclusion of the initial review, which was documented above in Section 4OA3.7. This LER is closed.

.9 (Closed) LER 50-315-2000-009-00: "Failure to Perform Technical Specification Valve Position Surveillance on Leak-off Valves." The licensee identified that prior to 1997, the TS containment integrity surveillance test requirement of verifying valve position every 31 days was not met for two containment isolation valves in Unit 1. This constituted a violation of Technical Specification 4.6.1.1.a.1. The surveillance procedure was revised to verify the correct position of the affected valves. Because these leak-off valves were located in a sealed enclosure with limited access, this issue is considered to be of minor safety significance. The licensee entered this event into its corrective action program as CR 00341030. This finding constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section VI of the NRC's Enforcement Policy. This LER is closed.

.10 (Closed) LER 50-316-2000-013-00: "Safety Injection Valve Closure at High Power Levels Could Result in Exceeding Peak Centerline Temperature Limits." The licensee was performing Unit 2 valve testing at full power which put the unit in an improper alignment for brief periods. This constituted a violation of 10 CFR 50, Appendix B, Criteria III, "Design Control." The procedures were revised to perform this testing when the plant was shutdown. Unit 1 procedures were also revised although the requirement did not apply to Unit 1 power levels. Because the testing was performed for very short durations and on an 18 month interval, this issue is considered to be of minor safety significance. The licensee entered this event into its corrective action program as CR P-00-11217. This finding constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section VI of the NRC's Enforcement Policy. This LER is closed.

.11 (Closed) LER 50-315-1999-012-01: "Auxiliary Building ESF Ventilation System May Not Be Capable of Maintaining ESF Room Temperatures Post-Accident," Supplement 1. On April 20, 1999, the licensee discovered several issues that, when taken in aggregate, resulted in insufficient assurance that the ESF ventilation system was capable of performing its safety and accident mitigation functions. The inspectors reviewed the original LER in NRC Inspection Report 50-315/316-99-29(DRS) and concluded that this was a minor issue. The licensee submitted Supplement 1 to LER 50-315-1999-012-00 to provide new information concerning the analysis of the event and corrective actions. The cause for this event was the licensee's failure to adequately control design basis calculations and supporting documentation. This constituted a violation of 10 CFR 50, Appendix B, Criteria III, "Design Control." The licensee entered this event into its corrective action program as CR P-99-08841. The inspectors determined that the licensee's corrective actions were adequate to prevent recurrence. This finding constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section VI of the NRC's Enforcement Policy. This LER is closed.

.12 (Closed) LER 50-315-1999-001-01: "General Electric HFA Relays Installed in Emergency Diesel Generators May Not Meet Seismic Qualifications," Supplement 1. On January 6, 1999, it was determined that General Electric HFA safety related relays installed in plant system circuits may not be properly configured in accordance with vendor instructions for relay contact adjustment and servicing, and therefore, may not meet seismic qualification. The inspectors reviewed the original LER and determined that this was a minor issue. The licensee submitted Supplement 1 to LER

50-315-1999-001-00 to provide new information concerning the analysis of the event and corrective actions. The extent of condition was identified and all affected relays were reconfigured and calibrated to restore operability. The inspectors determined that the information provided in Supplement 1 to LER 50-315-1999-001-00 did not raise any new issues or change the conclusion of the initial review, which was documented in NRC Inspection Report 50-315/316-99-29(DRS). The licensee entered this event into its corrective action program as CR P-99-00270. This LER is closed.

4OA6 Meetings

.1 Interim Exits

The results of the Occupational Radiation Safety - Radiation Monitoring Instrumentation and Access Control to Radiologically Significant Areas Inspection were presented to Mr. J. Pollock and other members of licensee management at the conclusion of the inspection on July 26, 2002. The licensee acknowledged the findings presented. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified. The inspector subsequently discussed changes to the original characterization of the findings with Mr. D. Wood on August 16, 2002.

.2 Resident Inspectors' Exit

The inspectors presented the inspection results to Mr. J. Pollock and other members of licensee management at the conclusion of the inspection on October 2, 2002. The licensee acknowledged the findings presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. Proprietary information was examined during this inspection but is not specifically discussed in this report. The inspectors subsequently discussed changes to the original characterization of the findings with Mr. J. Pollock on October 18, 2002.

.3 Exit Meeting

Exit Meeting

Senior Official at Debrief:	Joseph Pollock
Date:	September 27, 2002
Proprietary Information:	None
Subjects:	Public Radiation Safety - Radioactive Gaseous and Liquid Effluent Monitoring and Control
Change to Inspection Findings:	None

KEY POINTS OF CONTACT

Licensee
M. Allen, Assistant Maintenance Director
C. Bakken, Senior Vice President, Nuclear Generation
D. Foster, Environmental Specialist
J. Gebbie, Plant Engineering Assistant Director
S. Greenlee, Nuclear Technical Services Director
J. Grimm, System Engineer
G. Harland, Work Control/Maintenance Director
R. LaBurn, General Supervisor, Radiation Protection Production
E. Larson, Operations Director
R. Meister, Regulatory Affairs Specialist
J. Molden, Acting Plant Manager
D. Moul, Operations Staff Manager
D. Noble, Technical Support, Radiation Protection/Environmental
T. Noonan, Performance Assurance Director
J. Pollock, Site Vice President
B. Robinson, Radiation Protection Superintendent
M. Scarpello, Regulatory Compliance Supervisor
T. Summers, Chemistry Superintendent
D. Wood, Radiation Protection/Environmental Manager
T. Woods, Licensing Supervisor

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-315-02-06-01	URI	Pressurizer power operated relief valve inadvertently opened during testing resulting in a loss of reactor coolant system inventory and an unusual event (Section 4OA3.2)

Closed

50-315-1999-001-01	LER	General Electric HFA Relays installed in emergency diesel generators may not meet seismic qualifications (Section 4OA3.12)
50-315-1999-012-01	LER	Auxiliary Building ESF ventilation system may not be capable of maintaining ESF room temperatures post-accident (Section 4OA3.11)
50-315-2000-08-00	LER	Failure to test essential service water valves in accordance with Technical Specifications (Section 4OA3.7)
50-315-2000-08-01	LER	Failure to test essential service water valves in accordance with Technical Specifications (Section 4OA3.8)
50-315-2000-09-00	LER	Failure to perform Technical Specification valve position surveillance on leak-off valves (Section 4OA3.9)
50-315-2002-03-00	LER	Main steam safety valves exceed allowable lift setpoints (Section 4OA3.3)
50-315-2002-05-00	LER	Unit 1 manual trip due to trip of east main feedwater pump (Section 4OA3.4)
50-315-2002-06-00	LER	Switchyard fire results in violation of Technical Specification 3.0.5 (Section 4OA3.5)
50-315-2002-07-00	LER	Technical Specification 3.3.3.1 required special report for inoperable radiation monitors (Section 4OA3.6)
50-316-2000-13-00	LER	Safety injection valve closure at high power levels could result in exceeding PCT limits (Section 4OA3.10)
50-316-2002-06-00	LER	Unit 2 reactor trip due to low condenser vacuum (Section 4OA3.1)

Discussed

None

LIST OF ACRONYMS USED

AC	Alternating Current
ADAMS	Agency-wide Documents and Management System
ANSI	American National Standards Institute
ARM	Area Radiation Monitor
ASME	American Society of Mechanical Engineers
CFR	Code of Federal Regulations
CR	Condition Report
DCP	Design Change Procedure
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
ECCS	Emergency Core Cooling System
EHP	Electrical Maintenance Head Procedure
ESF	Engineered Safety Features
ESW	Essential Service Water
FME	Foreign Material Exclusion
HEPA	High Efficiency Particulate Air
HSAS	Homeland Security Advisory System
IHP	Instrument Maintenance Head Procedure
LER	Licensee Event Report
LHRA	Locked High Radiation Area
LLD	Lower Limit of Detection
MHP	Maintenance Head Procedure
MSSV	Main Steam Safety Valves
NOED	Notice of Enforcement Discretion
NRC	Nuclear Regulatory Commission
OA	Other Activities
ODCM	Offsite Dose Calculation Manual
OHS	Office of Homeland Security
OHP	Operations Head Procedure
PARS	Publically Available Records
PI	Performance Indicator
PMI	Plant Manager's Instruction
PMP	Plant Manager's Procedure
PORV	Power Operated Relief Valve
Radwaste	Radioactive Waste
RETS	Radiological Effluent Technical Specification
RIS	Regulatory Information Summary
RP	Radiation Protection
RWP	Radiation Work Permit
SCBA	Self-contained Breathing Apparatus
SDP	Significance Determination Process
SSC	Structures, Systems, and Components
STP	Surveillance Test Procedure
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
URI	Unresolved Item

LIST OF DOCUMENTS REVIEWED

The following is a list of licensee documents reviewed during the inspection, including documents prepared by others for the licensee. Inclusion on this list does not imply the NRC inspectors reviewed the documents in their entirety, but rather, that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document in this list does not imply NRC acceptance of the document, unless specifically stated in the inspection report.

1R04 Equipment Alignment

1R04.1 Partial System Walkdowns

Unit 2 West Component Cooling Water System Train

	D. C. Cook Nuclear Plant Updated Final Safety Analysis Report (UFSAR)	
02-OHP-4021-016-003	Operation of the Component Cooling Water System During Startup and Power Operations	Revision 13
02-OHP-5030-001-001	Operations Plant Tours	Revision 20
OP-2-5135-36	Flow Diagram Component Cooling Water Pumps and Component Cooling Water Heat Exchangers Unit Number 2	Revision 36
PMP-4043.SLV.01	Sealed/Locked Valve List	Revision 4

Unit 2 West Charging and Safety Injection System Train

01-OHP-4021-008-002	Placing Emergency Core Cooling System in Standby Readiness	Revision 15b
OP-2-55129-39	Flow Diagram Chemical and Volume Control System Reactor Letdown and Charging Unit Number 2	Revision 39
Condition Report (CR) 02248048 (1)	NRC Identified a Discrepancy Between the Normal Operating Procedure and the Operations Flow Print for the Residual Heat Removal Heat Exchanger Outlet Sample Valve 1-RHR-120E/W	September 5, 2002
CR 02249046 (1)	Drawing OP-1-5143 Shows 1-IRV-300 and 1-IRV-311 as Open. NRC Inspector Noted That These Are Normally Closed Valves.	September 6, 2002

Unit 1 West Residual Heat Removal System Train

01-OHP-4021-008-002	Placing Emergency Core Cooling System in Standby Readiness	Revision 15b
OP-1-5143-59	Flow Control Diagram Emergency Core Cooling (Residual Heat Removal) Unit 1	Revision 59
Clearance Order 1022825	East Residual Heat Removal Pump	September 3, 2002
CR 02248048 (1)	NRC Identified a Discrepancy Between the Normal Operating Procedure and the Operations Flow Print for the Residual Heat Removal Heat Exchanger Outlet Sample Valve 1-RHR-120E/W	September 5, 2002

Unit 2 CD Emergency Diesel Generator

02-OHP-4021-032-008CD	Operating Diesel Generator 2CD Subsystems	Revision 2
OP-2-5151C-47	Flow Diagram Emergency Diesel Generator "CD" Unit 2	Revision 47
OP-2-5151D-56	Flow Diagram Emergency Diesel Generator "CD" Unit 2	Revision 56
CR 02263059 (1)	2-LDA-245-V1, 2-LDA-245 High Pressure Side Root Valve Has a Small Packing Leak Evidenced by Droplet Formed Around the Packing. Leakage Is Too Small to Be Quantified in Drops Per Minute.	September 20, 2002
CR 02263060 (1)	2-DL-156C, CD Emergency Diesel Generator Full Flow Lube Oil Filter QT-112-CD Bypass Valve, Has a Small Packing Leak Evidenced by Lube Oil Around the Packing Gland. Leakage Is Too Small to Quantify in Drops Per Minute.	September 20, 2002

CR 02263061 (1)	2-LDA-235-V2, 2-LDA-235 CD Emergency Diesel Generator Full Flow Lube Oil Filter QT-112-CD High D/P Alarm Switch Low Pressure Side Root Valve Has a Small Packing Leak. Leak Was Too Small to Quantify in Drop Per Minute.	September 20, 2002
CR 02264012 (1)	2-DW-246C, CD Emergency Diesel Generator Jacket Water Surge Tank Instrument Column Drain Valve, Handwheel is Against Piping that Prevents it from Cycling in Full Range from Fully Closed to Fully Open	September 20, 2002
CR 02264017 (1)	2-DL-156C, CD Emergency Diesel Full Flow Lube Oil Filter Bypass Valve is Missing a Stem Spacer Between the Handwheel and the Valve Bonnet, Making the Valve Handwheel Loose	September 20, 2002
CR 02264019 (1)	There is No Pipe Cap Installed Downstream of the Following Jacket Water Sample Valves (One for Each Diesel Generator), 2-ED-228A, 2-DG-228C, 1-DG-227A & 1-DG-227C. CR Generated to Request Clarification if Pipe Caps Are Required	September 20, 2002

Miscellaneous Condition Reports

CR 02193057	Procedure Step Missed in Performance of 1-OHP-4021-082-026	July 12, 2002
CR 02198040	While Performing 12-THP-6020-CHM-202, the Condensate Chemical Feed Tank Overflowed Approximately 100 Gallons	July 17, 2002
CR 02220039	Upon Stopping Unit 1 East ESW Pump, the Unit 1 East ESW Pump Restarted When the Control Switch Was Placed Back in Auto	August 8, 2002
CR 02227065	2-AUX-432, Main Steam to 125 Pounds Auxiliary Steam Pressure Reducing Valve 2-SRV-402 Inlet Shutoff Valve Was Found in the Incorrect Position	August 15, 2002

CR 02227067	2-AUX-431, Main Steam to 125 Pounds Auxiliary Steam Header Pressure Reducing Valve 2-SRFV-400 Inlet Valve Was Found Out of Position	August 15, 2002
CR 02246010	While Securing the Control Air Compressor, a Mis-communication Resulted in the Closing of 1-PA-128. This Resulted in a Momentary Loss of Air Supply to the Unit One Control Air Header and a Lowering Pressure.	September 3, 2002

1R04.2 Complete System Walkdown

Unit 1 and 2 Essential Service Water System

	D. C. Cook Nuclear Plant UFSAR	
Clearance Order 2022729	2-PP-7W West ESW Pump Replacement-ground Clearance	Revision 0
Clearance Order 2022726	2-PP-7W West ESW Pump Replacement-ground Clearance	Revision 0
12-OHP-4021-019-001	Operation of the Essential Service Water System	Revision 25
OP-1-5113-79	Flow Diagram Essential Service Water System Unit 1	Revision 79
OP-2-5113-71	Flow Diagram Essential Service Water System Unit 2	Revision 71
OP-1-5113A-6	Flow Diagram Essential Service Water System Unit 1	Revision 6
OP-2-5113A-8	Flow Diagram Essential Service Water System Unit 2	Revision 8
CR 02249018	License Renewal Project Not Able to Locate Two ESW Valves on a Flow Diagram	September 9, 2002
CR 02249020	License Renewal Project Identified Potential Discrepancies in Pipe Class Flags	September 9, 2002

1R05 Fire Protection

1R05.1 Routine Resident Inspector Tours

	D. C. Cook Nuclear Plant UFSAR, Section 9.8.1, "Fire Protection System"	
	D. C. Cook Nuclear Plant Fire Hazards Analysis, Units 1 and 2	Revision 8
	D. C. Cook Nuclear Plant Units 1 and 2 Probabilistic Risk Assessment, Fire Analysis Notebook	February 1995
PMP 2270.CCM.001	Control of Combustible Materials	Revision 1
PMP 2270.FIRE.002	Responsibilities for Cook Plant Fire Protection Program Document Updates	Revision 0
PMP 2270.WBG.001	Welding, Burning and Grinding Activities	Revision 0
PMP 5020.RTM.001	Restraint of Transient Material	Revision 1
Plant Manager's Instruction (PMI) 2270	Fire Protection	Revision 26
12-PPP-2270-066-001	Portable Fire Extinguisher Inspections	Revision 0a
	D. C. Cook Fire Pre-Plan 078	Revision 1
	D. C. Cook Fire Pre-Plan 094	Revision 1
Drawing 12-5267-10	D. C. Cook Fire Facilities Basement Plan	Revision 10

1R06 Flood Protection Measures

	D. C. Cook Nuclear Plant UFSAR	
	D. C. Cook Nuclear Plant Units 1 and 2 Probabilistic Risk Assessment, Internal Flooding Analysis Noted	April 1992
	Engineering Action Plan 01-626, Address Rain Intrusion/Surface Runoff	June 2001
01-OHP 4024.118	Annunciator #118 Response: Main and Feed Pump Turbine	Revision 8
02-OHP-4024.218	Annunciator #218 Response: Main and Feed Pump Turbine	Revision 8

01-OHP 4024.124	Annunciator #124 Response: Containment	Revision 4
02-OHP-4024.224	Annunciator #224 Response: Containment	Revision 3a
01-OHP-4024.105	Annunciator #105 Response: Containment Spray	Revision 8
02-OHP-4024.205	Annunciator #205 Response: Containment Spray	Revision 6
01-OHP-4024.106	Annunciator #106 Response: Residual Heat Removal	Revision 8
02-OHP-4024.206	Annunciator #206 Response: Residual Heat Removal	Revision 6
01-OHP-4024.116	Annunciator #116 Response: Condensate	Revision 10
02-OHP-4024.216	Annunciator #216 Response: Condensate	Revision 7

1R11 Licensed Operator Requalification Training

1R11.1 Resident Inspector Quarterly Review

Licensed Operator Requalification Training Simulator Evaluation Scenario for August 13, 2002

Licensed Operator Requalification Training Simulator Evaluation Scenario for September 24, 2002

1R12 Maintenance Effectiveness

PMP-5035-MRP-001	Maintenance Rule Program Administration	Revision 4
PMI-5035	Maintenance Rule Program	Revision 9

Auxiliary Feedwater System

	Maintenance Rule (a)(1) Action Plan Auxiliary Feedwater System	Revision 1
	Maintenance Rule Scoping Document Auxiliary Feedwater System	Revision 1

	Two-year Unavailability Report for the Auxiliary Feedwater System	July 16, 2002
CR 02020014	Unit 2 West Motor Driven Auxiliary Feedwater Pump Coupling Has Thrown a Substantial Amount of Coupling Grease on the Inside of the Coupling Guard and on the Skid below the Coupling	January 20, 2002
CR 02041027	During 2-PP-3E Pump Start Outboard Packing Gland Reached 190 Degrees	February 10, 2002
CR 02042004	2-PP-3E Outboard Packing Needs to Be Re-packed	February 11, 2002

600 Volt Safety Related Power

	Maintenance Rule Scoping Document 4kV/600V Electrical Distribution System	Revision 4
CR 02139005	Two Fuses Failed Over-current Test	May 19, 2002
CR 02189031	Indication on 1-MFC-111 is Erratic	July 8, 2002
CR 02095031	Relay Found Stuck During Surveillance	April 5, 2002
CR 02102011	Charger 600 Volt Starter Overload Is Tripping	April 12, 2002
CR 02125063	Breaker Failed Test During Performance of Surveillance	May 5, 2002
CR 02132013	During Breaker Over-current Testing, the Breaker Failed to Trip after the Maximum Allowable Time	May 12, 2002

Emergency Diesel Generators

	Maintenance Rule Scoping Document Emergency Diesel Generators	Revision 2
JO 01046020	DCP-744, 1-OME-150-CD, Install New High Pressure Fuel Injector Lines	July 12, 2001
JO 02103011	1-PP-163-6R-CD, Replace Pump/Repair as Needed	April 14, 2002
1-DCP-744	Upgrade of Emergency Diesel Generator High Pressure Fuel Injector Lines	May 27, 2002

CR 02103011	The Unit 1 CD Emergency Diesel Generator #6 Rear Fuel Injector Appears to Be Mechanically Bound	April 13, 2002

Miscellaneous Condition Reports

CR 02019002	Unit 2 N-31 Source Range Detector Indicates Approximately 1 Decade Lower than Other Channels	January 19, 2002
CR 02032010	Unit 2 CD2 Battery Charger Tripped Off When Alternating Current Source Was Cross-tied.	February 1, 2001
CR 02037084	2-ESW-141, All Internal Parts of the Valve Except Rubber Inserts Are Missing	February 6, 2002
CR 02054026	2-NRV-151, Pressurizer Train B Pressure Relief Valve has Seat Leakage	February 23, 2002
CR 02054035	2-NRV-151, 2-NRV-152 and 2-NRV-153 Had to Be Reworked to Stop Leakage after Maintenance Work to Refurbish the Actuators During U2C13	February 23, 2002
CR 02055010	2-NRV-151, Pressurizer Train B Pressure Relief Valve, Leaks-by	February 24, 2002
CR 02056091	2-PP-45-3 "Y" Axis Vibration Probe Failed and Is Currently Defeated	February 25, 2002
CR 02060013	The 10 Meter Backup Wind Speed Sensor Appears to Have Failed	March 1, 2002
CR 02060048	2-MRV-220 Repair Required Downpower to Less Than 5 Percent, Which Was an Unplanned Power Reduction Greater Than 20 Percent and Caused a Plant Level Event for Maintenance Rule Purposes	March 1, 2002
CR 02081006	Found That There is No Display on the Face of 2-MU-253 and the Alarm Is in for this Math Unit	March 22, 2002
CR 02079004	2-SV-78-CD2 CD 2 Air Receiver Safety Valve Was Discovered Lifting and Would Not Reseat	March 30, 2002
CR 02092038	Steam Jet Air Ejector Radiation Monitor Failed its Surveillance	April 2, 2002

CR 02113065	02-OHP-4030-STP-007E, East Containment Spray System Operability Test, Does Not Have a Maximum of 60 Gallons Per Minute Water Flow Rate for from the Spray Addictive Tank Line with Spray Pump on Recirculation as Stated in TS Bases Section 3/4.6.2.2	April 23, 2002
CR 02115039	Insulator for Disconnect for K1 Breaker Damaged During Maintenance	April 25, 2002
CR 02115046	2-ERS-2300 Declared Inoperable. Sample Pump Will Not Start	April 25, 2002
CR 02128037	1-CCW-135 Is Leaking by During Local Leak Rate Testing at a Rate Greater than Allowed	May 8, 2002
CR 02136085	Tracking CR for (a)(1) Presentation for Maintenance Preventable Functional Failure	May 16, 2002

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

PMP-2291-OLR-001	On-Line Risk Management	Revision 2
PMP-2291-SCH-001, Data Sheet 1	Work Control Activity Scheduling Process Sponsored Work Authorization	August 29, 2002
NUMARC 93-01	Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants, Section 11, "Assessment of Risk Resulting From Performance of Maintenance Activities"	Revision 2

Unit 2 Pressurizer Power Operated Relief Valves (PORVs) Troubleshooting

	Daily Shift Manager's Logs	August 20, 2002 through August 21, 2002
	Unit 2 Pressurizer PORV (2-NRV-151, 152, 153) Troubleshooting Team Meeting Minutes	August 20, 2002
	Unit 2 Pressurizer PORV (2-NRV-151, 152, 153) Troubleshooting Team Meeting Minutes	August 21, 2002
CR 02228055	2-NRV-151 Has Excessive Seat Leakage	August 16, 2002

CR 02230010	2-NRV-153 Is Leaking Past Its Closed Seat	August 18, 2002
CR 02230011	2-NRV-152 Leaks Past Its Closed Seat	August 18, 2002
Unit 2 West Component Cooling Water System Train Maintenance		
PMP-2291-OLR-001 Data Sheet 1	On-Line Risk Management Work Schedule Review and Approval Form Cycle 42, Week 3	July 14, 2002 through July 20, 2002
Unit 2 East Component Cooling Water System Train Maintenance		
	Daily Shift Manager's Logs	August 28, 2002
PMP-2291-OLR-001, Data Sheet 1	On-Line Risk Management Work Schedule Review and Approval Form Cycle 42, Week 9	August 27, 2002 through August 30, 2002
Unit 2 East Charging System Train Maintenance		
	Daily Shift Manager's Logs	August 28, 2002
PMP-2291-OLR-001, Data Sheet 1	On-Line Risk Management Work Schedule Review and Approval Form Cycle 42, Week 9	August 25, 2002 through August 31, 2002
Unit 1 East Residual Heat Removal System Train Maintenance		
PMP-2291-OLR-001, Data Sheet 1	On-Line Risk Management Work Schedule Review and Approval Form Cycle 42, Week 9	August 25, 2002 through August 31, 2002
Unit 2 West Component Cooling Water System Train Maintenance		
	On-Line Risk Management Work Schedule Review and Approval Form Cycle 42, Week 3	July 14, 2002 through July 20, 2002
Unit 2 West Essential Service Water Pump Maintenance		
	On-Line Risk Management Work Schedule Review and Approval Form Cycle 42, Week 11	September 8, 2002 through September 14, 2002

	NRC Letter to Mr. A. C. Bakken III Subject: Donald C. Cook Nuclear Plant, Units 1 and 2 - Issuance of Amendments (TAC NOS. MB5729 and MB5730) {License Amendments 270 and 251, Respectively}	September 9, 2002
	Safety Evaluation for License Amendment 270 to Unit One License and License Amendment 251 to Unit Two License	September 9, 2002
PMP 2291-OLR.001 Data Sheet 1	Work Schedule Review and Approval Form Cycle 42, Week 11 and Cycle, Week	September 8, 2002 through September 14, 2002
	Safety Monitor Printout for 140 Hour Allowed Outage Time License Condition Case	July 24, 2002
CR 02253016	UFSAR Section 9.8.3.4, Item 5 Issued in Version 17.3 Did Not Name Both Probabilistic Risk Assessment Elements	September 11, 2002

Unit 2 Reserve Feed Transformer Maintenance

PMP-4100-SDR-001	Plant Shutdown Safety and Risk Management	Revision 5a
PMP-5035-MRP-001	Maintenance Rule Program Administration	Revision 4
	On-Line Risk Management Work Schedule Review and Approval Form Cycle 42, Week 5	July 28, 2002 through August 3, 2002
	Unit 1 On-Line Risk Status and Unit 2 Shutdown Risk Status	July 30, 2002 and July 31, 2001
	American Electric Power Eastern System Emergency Operating Plan	Version 3.1 June 2001

1R15 Operability Evaluations

	D. C. Cook Nuclear Plant Unit 1 and 2 Technical Specifications	
	D. C. Cook Nuclear Plant UFSAR	

Generic Letter 91-18	Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded and Nonconforming Conditions	Revision 1
PMP-7030-ORP-001	Operability Determinations	Revision 9
PMP 4030-001-001	Impact of Safety Related Ventilation on the Operability of Technical Specification Equipment	Revision 4
Calculation MD-12-RH-129-N	Maximum Differential Pressure During Operation of Centrifugal Charging Pump Suction Valves 1-IMO-910, 1-IMO-911, 2-IMO-910, & 2-IMO-911	Revision 2
CR 01020010	2-HV-AES-2 Fan Was Discovered Rotating Backwards Due to Backdraft Damper Being Open	January 20, 2001
CR 02113065	2-OHP-4030-STP-007E, East Containment Spray System Operability Test, Does Not Have a Maximum of 60 Gallons Per Minute Water Flow Rate for from the Spray Addictive Tank Line with Spray Pump on Recirculation as Stated in TS Bases Section 3/4.6.2.2	April 23, 2002
CR 02116032	1-HV-AES-2 Exhaust Fan Was Found in Standby With its Backdraft Damper Stuck Partially Open and the Fan Rotating Backwards	April 26, 2002
CR 02122057	1-IMO-911 Could Not Be Set Within the Prescribed Thrust Limitations Provided in VDS-1-IMO-911	May 2, 2002
CR 02125016	Potentially High Boron Concentration (Above 2600 Parts Per Million) in Unit 1 Reactor Coolant System in Mode 4 Shortly Before Entering Mode 5	May 5, 2002
CR 02141011	During the Performance of 1-EHP-4030-128-229, Section 4.7, Outside Air Control Room Ventilation Dampers Would Not Seal	May 21, 2002
CR 0214013	Unit 1 "CD" Engine 4R Cylinder Injector Return Line has Separated Ferrule	May 21, 2002

CR 02186022	Procedure Noncompliance on Call Made on CR 02137011 for Inservice Testing Stroke Time Failure of Steam Generator PORV 2-MRV-233	July 5, 2002
CR 02238004	Significant Ice Buildup Was Found in Unit 1 Ice Condenser During Operations Ice Tour	August 25, 2002
CR 02245008	Thermal Power Calorimetric in Unit Two, Displayed "Unknown" Quality for Loop 3 and 4 Enthalpy While 2-FPI-230, S/G #3 Feed Pressure Channel was being Calibrated	September 2, 2002
CR 02264018	Unit 1 Control Room Door Was Propped Open Without Specific Procedure Guidance to Allow It to Be Open	September 21, 2002

1R16 Operator Workarounds

PMP-4010-OWA-001	Oversight and Control of Operator Workarounds	Revision 1
NRC Inspection Manual Temporary Instruction 2515/138	Evaluation of the Cumulative Effect of Operator Workarounds	
	Work Around Review Board Meeting Agenda	July 24, 2002
	Work Around Review Board Meeting Minutes	July 24, 2002
	Work Around Review Board Meeting Agenda	September 25, 2002
	Unit 1 Operator Workarounds	July 16, 2002
	Unit 2 Operator Workarounds	July 16, 2002
	Unit 1 Operator Workarounds	September 23, 2002
	Unit 2 Operator Workarounds	September 23, 2002
	Unit 1 Operator Workarounds Contingency Actions for Reactor Operators	September 24, 2002

	Unit 1 Operator Workarounds Compensatory Actions for Auxiliary Equipment Operators	September 24, 2002
	Unit 2 Operator Workarounds Contingency Actions for Reactor Operators	September 24, 2002
	Unit 2 Operator Workarounds Compensatory Actions for Auxiliary Equipment Operators	September 24, 2002
CR P-99-03751	Demineralized Water Makeup to Control Room Air Conditioning Units Appears Possibly to Have a Design to Be Operated in the Automatic Mode and We Operate in the Manual Mode	February 26, 1999
CR 02106030	Generate a Routine Task to Cycle ESW Valve 1-ESW-115 on a Monthly Basis	April 16, 2002
CR 02106032	Generate a Routine Task to Cycle ESW Valves 2-ESW-240 and 2-ESW-145 on a Monthly Basis	April 16, 2002
CR 02140025	1-QFC-411 Did Not Show Any Indication of Flow with Flow Actually Present	May 20, 2002
CR 02152005	The Control Valve Does Not Automatically Control the Pressure in the Chilled Water System for the Control Room Air Conditioning System	June 1, 2002
CR 02210010 (1)	Operator Workaround Board Aggregate Impact Attachment and Minute Meetings Were Not Performed in Accordance with Procedure	July 29, 2002
CR 02229001	The Makup Pump South Middle Prefilter Automatic Regeneration Timer Control Box Does Not Function as Designed	August 17, 2002
CR 02230003	While Operating the Steam Generator Blowdown System on the Normal Blow Down Tank with the Effluent Aligned to 2-DRV-350 Frequent Blow Down Low Sample Alarms Were Received	August 18, 2002

CR 02231001	1-SV-101 (Nitrogen Supply Header to Accumulator Tanks Safety Valve) Lifted During Performance of 01-OHP-4021-008-006 (Adjusting Pressure in Accumulator)	August 19, 2002
CR 02234103	The Screen Save Time Out Function on the Radiation Monitoring System Control Terminal in the Radiation Protection Office Varies From Less Than One Minute to Over Seven Minutes	August 22, 2002
CR 02236013	1-CMO-429-PI Control Room Position Indicator Doesn't Move While Valve is Operated and Is Indicating Approximately 16 Percent Open with the Valve Fully Closed	August 24, 2002
CR 02246018	2-WMO-101 Low Pressure Turbine "A" Northeast Circulating Water Inlet Valve Continues to Drift Off the Open Seat and Not Evaluated for Operator Workaround or Repetitive Action on Equipment Condition	September 3, 2002

1R17 Permanent Plant Modifications

Design Change Procedure (DCP) 5173	Unit 1 Provide Essential Service Water Minimum Flow Path Via Containment Spray System Heat Exchanger	Revision 0
DCP 5174	Unit 2 Provide Essential Service Water Minimum Flow Path Via Containment Spray System Heat Exchanger	Revision 0
Owner's Acceptance Review of AEP-01-119	Large Break Loss of Coolant Accident Evaluation for Reduced Containment Spray Temperature	September 17, 2001
AEP-99-480	Westinghouse Sub-atmospheric Containment Evaluation Report	December 20, 1999

1R19 Post Maintenance Testing

Unit 2 West Component Cooling Water System Train Maintenance

Job Order (JO) C0192651	Perform Inservice Stroke Time Test of 2-CMO-414	July 21, 2002

JO R0220063	Perform Operability Test of 2-PP-10W Supply Breaker	July 21, 2002
JO R0222866	Place in Service (Post Maintenance Test) 2-PP-10W	July 21, 2002
JO R0228055	Support Leak Check and Perform Post Maintenance Test of 2-PP-10W	July 21, 2002
JO R0229289	West Component Cooling Water Loop Surveillance	July 21, 2002
JO R0231895	West Component Cooling Water Loop Flow Path Verification	July 21, 2002
02-OHP-4030-216-020W	West Component Cooling Water Loop Surveillance Test	Revision 1
Engineering Programs Technical Data Book Figure 2-15.1	Safety Related Pump Inservice Test Hydraulic Reference	Revision 59
Engineering Programs Technical Data Book Figure 2-15.2	Safety Related Pump Inservice Test Vibration Reference	Revision 52
Engineering Programs Technical Data Book Figure 2-19.1	Power Operated Valve Stroke Time Limits	Revision 56

Unit 2 East Auxiliary Feedwater Pump Maintenance

02-OHP-4030-STP-017E	East Motor Drive Auxiliary Feedwater System Test	Revision 10
Engineering Programs Technical Data Book Figure 2-15.1	Safety Related Pump Inservice Test Hydraulic Reference	Revision 60
Engineering Programs Technical Data Book Figure 2-15.2	Safety Related Pump Inservice Test Vibration Reference	Revision 53
Engineering Programs Technical Data Book Figure 2-19.1	Power Operated Valve Stroke Time Limits	Revision 56
Engineering Control Package 1-2-F2-01	Feedwater Flow Instrumentation	Revision 19

CR 02219071	Increasing Vibration Levels on 2-PP-3E Motor	August 7, 2002
CR 02221033	While Performing 02-OHP-4030-STP-017E, Erratic Flow Oscillations Were Observed on the Common Emergency Leak-off/Test Line Test Instrument	August 9, 2002
CR 02221037	Job Order Step Was Not Completed As Written	August 9, 2002
CR 02226074 (1)	Completeness of Documentation and Review Issues Associated With Recent Performances of 02-OHP-4030-STP-017E Identified by NRC Senior Resident Inspector	August 14, 2002

Unit 1 East Residual Heat Removal System Train Maintenance

JO R0209505	Lubricate and Clean Residual Heat Removal Pump 1-PP-35E Motor	September 5, 2002
01-OHP-4030-STP-050E	East Residual Heat Removal Train Operability Test Modes 1-4	Revision 9

Unit 2 North Safety Injection Pump Maintenance

02-OHP-STP-051N	North Safety Injection Pump System Test	Revision 11
OP-2-5142-44	Flow Diagram Emergency Core Cooling	Revision 44

Unit 2 AB Emergency Diesel Generator Maintenance

JO R0097099-03	Post Maintenance Test for Time Delay Relay 2-62-1-LQBA-DGAB	September 21, 2002
JO R0097141-05	Support Instrument Maintenance Post Maintenance Test of AB Diesel Time Delay Relays	September 21, 2002
JO R0216722-02	Rack Out/Rack In 2-T21A11 for Post Maintenance Test	September 21, 2002
JO R0216737-02	Rack In and Cycle 2-21A5	September 21, 2002
JO R0216751-02	Rack Out/Rack In 2-T21B4	September 21, 2002

JO R0216756-03	2-T-131-5, Verify Operability	September 21, 2002
JO R0216757-03	2-T-131-6, Verify Operability	September 21, 2002
JO R0221576-02	2-QT-111-AB, Run Pump to Verify Proper Operation	September 21, 2002
JO R0232273-01	Quarterly Inservice Test AB1 Fuel Transfer Pump	September 21, 2002
JO R0233374-01	AB Emergency Diesel Generator Alternate ESW Supply Valve Testing	September 21, 2002
JO R0234524-02	STP 027AB Diesel Generator 2AB Slow Start	September 21, 2002
02-OHP-4030-STP-027AB	AB Diesel Generator Operability Test (Train B)	Revision 18
02-OHP-4021-082-020	Removal and Restoration of Power to 600 Volt Bus 21A and Associated Motor Control Centers	Revision 3
02-OHP-4021-032-008AB	Operating DG2AB Subsystems	Revision 2

<u>Unit 2 West Essential Service Water Pump Replacement</u>

12-DCP-5260-TP-U2W	Unit 2 West Essential Service Water Pump Performance and Full Flow Test	September 17, 2002
12-LDCP-5260	Essential Service Water Pump Upgrades for Reliability	Revision 0
02-OHP-4030-219-022W	West Essential Service Water System Test	Revision 2
Engineering Programs Technical Data Book Figure 2-15.1	Safety Related Pump Inservice Test Hydraulic Reference	Revision 61
Engineering Programs Technical Data Book Figure 2-15.2	Safety Related Pump Inservice Test Vibration Reference	Revision 54
Engineering Programs Technical Data Book Figure 2-19.1	Power Operated Valve Stroke Time Limits	Revision 56

Unit 2 East Centrifugal Charging System Train Maintenance

JO R022245101	Lube and Clean 2-PP-50E-MTR	August 29, 2002
JO R022245202	Clean Filter/Lube Couplings	August 29, 2002
JO R022777602	Drain and Refill Speed Increaser	August 29, 2002
02-OHP-4030-STP-052E	East Centrifugal Charging Pump Operability Test	Revision 11
Engineering Programs Technical Data Book Figure 2-15.1	Safety Related Pump Inservice Test Hydraulic Reference	Revision 60
Engineering Programs Technical Data Book Figure 2-15.2	Safety Related Pump Inservice Test Vibration Reference	Revision 53

Unit 2 East Component Cooling Water System Train Maintenance

JO R022779501	Drain and Refill Unit 2 East Component Cooling Water Pump Oil Reservoir	August 29, 2002
JO R021620801	Calibrate Protective Relays for Breaker	August 29, 2002
12-IHP-6030-RLY-002	General Electric Type PJC Instantaneous Relay Calibration and Maintenance	Revision 2
02-OHP-4030-216-020E	East Component Cooling Water Loop Surveillance Test	Revision 1
Engineering Programs Technical Data Book Figure 2-15.1	Safety Related Pump Inservice Test Hydraulic Reference	Revision 60
Engineering Programs Technical Data Book Figure 2-15.2	Safety Related Pump Inservice Test Vibration Reference	Revision 53
Engineering Programs Technical Data Book Figure 2-19.1	Power Operated Valve Stroke Time Limits	Revision 56

Miscellaneous Condition Reports

CR 02194001	Loss of Oil Level in 2-PP-4 (Turbine Driven Auxiliary Feedwater Pump) Turbine Oil Sump	July 13, 2002

1R20 Refueling and Outage Activities

1R20.1 Unit 2 Forced Outage

	D. C. Cook Nuclear Plant Unit 2 Technical Specifications	
	D. C. Cook Nuclear Plant UFSAR	
01-OHP-4021-001-004	Plant Cooldown From Hot Standby to Cold Shutdown	Revision 36
01 OHP 4021-017-002	Placing In Service The Residual Heat Removal System	Revision 16
01-OHP-4021-001-002	Reactor Startup	Revision 27a
01-OHP-4030-114-030	Daily and Shiftly Surveillance Checks	Revision 0
PMP 4100-SDR-001	Plant Shutdown Safety and Risk Management	Revision 5, C1
	Daily Shift Manager's Logs	July 27, 2002 through August 2, 2002
CR 02208007	2-WMO-23 Appears to Have Failed Closed	July 27, 2002

1R22 Surveillance Testing

	D. C. Cook Nuclear Plant UFSAR	
	D. C. Cook Nuclear Plant Technical Specifications	
02-OHP-4030-STP-030	Daily and Shiftly Surveillance Checks performed on July 2, 2002 for Unit 2	Revision 39
12 EHP 6040-PER-323	Flux Mapping System Operation and Supportive Data Collection	Revision 4a
02-IHP-4030-STP-511	Train B Reactor Protection System and Engineered Safety Features Reactor Trip Breaker and Solid State Protection System Automatic Trip/Actuation Logic Functional Test	Revision 4
01-IHP-4030-SMP-103	Reactor Coolant Flow Protection Set III Functional Test and Calibration	Revision 4

01-IHP- 4030-SMP-104	Delta T/Tavg Protection Set I Functional Test and Calibration	Revision 4
CR 02135079	On May 15, 2002, During the Unit 2 Power Ascension, the N-35 Rod Stop Bistable Actuated Prior to the Blocking of P-10. It Was Subsequently Determined that the N-35 and N-36 Trip and Rod Stop Setpoints/Resets Need to Be Reset	May 15, 2002
CR 02204023	Inservice Test for the 1W Containment Spray Pump Was Completed Without Using the Correct Reference Values	July 23, 2002

1R23 Temporary Plant Modifications

	D. C. Cook Nuclear Plant UFSAR	
Temporary Modification 2-TM-00-57-R1	On-line Leak Repair of 2-FW-118-4	March 19, 2002
12-EHP-5040-MOD-001	Temporary Modifications	Revision 9
12-MHP-5021-001-051	Installation of Temporary On-line Leak Sealing	Revision 7
JO 00267043-01	2-FW-118-4 Temporary Leak Seal	April 12, 2002
10 CFR 50.59 Safety Screening 2000-2016-00	2-FW-118-4 Temporary Leak Seal	September 29, 2000
10 CFR 50.59 Applicability Determination 2002-0494-00	Temporary Modification 2-TM-00-57-R1	March 15, 2002
NRC Inspection Manual Part 9900 Technical Guidance	On-line Leak Sealing Guidelines for ASME [American Society of Mechanical Engineers] Code Class 1 and 2 Components	July 15, 1997
NRC Information Notice 93-90	Unisolatable Reactor Coolant System Leak Following Repeated Applications of Leak Sealant	December 1, 1993
CR 02263047 (1)	Completed Procedure was not Vaulted as Required	September 20, 2002
CR 02263057 (1)	The Completed Signed Off Version of the Furmanite package/procedure Could Not Be Located	September 20, 2002

1EP6 Drill Evaluation

	Cook Nuclear Plant Emergency Plan Training Drill Scenario August 22, 2002	Revision 1
	Desktop Guide for Emergency Planning Performance Indicators	Revision 2
PMP-2080-EPP-107	Notifications	Revision 16

2OS1 Access Controls for Radiologically Significant Areas

12-THP-6010-RPP-006	Radiation Work Permit Processing	Revision 17
PMP-6010-RPP-003	High, Locked High, and Very High Radiation Area Access	Revision 10
12-THP-6010-RPP-016	Radiation Protection Department Shift Technician Responsibilities	Revision 4
THG.026	Locked High Radiation Area and Very High Radiation Area Shiftly Verification Process	Revision 0
Administrative Guideline	High, Locked High and Very High Radiation Area Controls	Revision 0
	Radiation Protection Department Key Inventory Log	January 1, 2002 through July 23, 2002
	Radiation Protection Department Key Issuance/Return Log	January 1, 2002 through July 23, 2002
PMP-2220-001-001	Foreign Material Exclusion	Revision 2a
	Non Fuel Related Spent Fuel Pool Inventory	July 2002
CR 02055004	Key Log Inventory Not Performed	February 24, 2002
CR 02126004	Locked High Radiation Area Posting	May 5, 2002
CR 02153015	601 Pipe Tunnel Floor Hatch Improperly Posted	June 2, 2002
CR 0219900	Results of Institute of Nuclear Power Operations Assist Visit	July 18, 2002

2OS3 Radiation Monitoring Instrumentation and Protective Equipment

12-THP-6010-RPP-500	Radiation Protection Instruments	Revision 1
12-THP-6010-RPI-500	Instrument Issue and Operational Testing	Revision 13
12-THP-6010-RPI-805	Radiation Monitoring System Setpoints	Revision 14
	Activity Information for Instrument Check Sources	Various Dates
Form RP-572-a	Portal Monitor Calibration Data Sheet (Monitor # POR-454)	April 20, 2002
Form RP-818-b	DA1-8 Area Monitor Calibration Data Sheet (U-1 North Seal Water Injection Filter Cubicle)	July 18, 2001
Form RP-818-b	DA1-8 Area Monitor Calibration Data Sheet (U-2 South Seal Water Injection Filter Cubicle)	March 5, 2002
Form RP-818-b	DA1-8 Area Monitor Calibration Data Sheet (U-1 West Centrifugal Charging Pump Room)	July 18, 2001
12-THP-6010-RPC-818	Eberline Radiation Monitoring System DA1-8 Area Monitor Calibration	Revision 1
12-THP-06010-RPC-566	Source Characterization and Verification for the J. L. Shepherd Models M89 and M142-S	Revision 5b
12-THP-06010-RPC-566, Data Sheet 1	Shepherd Model 89 Exposure Rate Verification Data Sheet (Instrument M89-1 and M89-2)	January 30, 2002
	Global Calibration Laboratory Calibration Data Sheet (Ion Chamber Model 20X5-180, Serial # 21822 and Electrometer Model 2025, Serial # 5878)	May 2002
UFSAR, Table 11.3-1	Radiation Monitoring System Channel Sensitivities and Detecting Medium	Revision 17
1-IHP-6030-IMP-311	Calibration of High Range Containment Radiation Monitor VRA-1310	December 20, 2001
1-IHP-6030-IMP-312	Calibration of High Range Containment Radiation Monitor VRA-1410	December 15, 2001

2-IHP-6030-IMP-411	Calibration of High Range Containment Radiation Monitor VRA 2310	March 13, 2002
2-IHP-6030-IMP-412	Calibration of High range Containment Radiation Monitor VRA 2410	September 13, 2001
2-IHP-6030-IMP-679	Seal Water Filter Cubicle Area Radiation Monitor 2-ERS-8400 Functional Check and Instrument Calibration	Revision 2
1-IHP-6030-IMP-579	Seal Water Filter Cubicle Area Radiation Monitor 1-ERS-7400 Functional Check and Instrument Calibration	Revision 1
12-THP-6010-RPP-201	Maintenance and Repair of Respiratory Devices	Revision 6
	SCBA Inventory and Location Chart	Undated
RP Form 201-02	SCBA Inspections	May 2002 through July 2002
	List of Users Qualified to Perform SCBA Inspections/Tests	Undated
MSA Training Certificate	Certificate for Specified RP Technician	July 24, 2001
MSA Instruction Manual	Portable Regulator Tester III	Undated
	SCBA Regulator Calibration Log	July 24, 2002
PMP-6010-RPP-201	Control and Use of Respiratory Protection Devices	Revision 10
	SCBA Training/Qualification Matrices For Selected Emergency Response Organization Members	July 25, 2002
D. C. Cook Emergency Plan	Planning Standard J - Protective Response	Revision 17
Self-Assessment SA-2001-SPS-002	SCBA Qualifications of Maintenance Personnel Assigned to the Operations Staging Area	January 29, 2001
CR 02048049	Back-up Compressor Grade-D Air Sample	February 17, 2002
CR 02050073	Breathing Air Quality Checks	February 19, 2002
CR 02052015	Emergency Response Air Packs Not Serviced Timely	February 21, 2002

2PS1 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems

	Annual Radioactive Effluent Release Report	January 1, 1999 to December 31, 1999
	Annual Radioactive Effluent Release Report	January 1, 2000 to December 2000
	Annual Radioactive Effluent Release Report	January 1, 2001 to December 31, 2001
PMP-6010-OSD.001	Offsite Dose Calculation Manual	Revision 17
12-THP-6010-RPI-805	Radiation Monitoring System Setpoints	Revision 14
12-THP-6010-RPI-805; Data Sheet 1	Setpoint Determination for Unit 1 Condenser Exhaust Low Range Noble Gas	April 17, 2002
12-THP-6010-RPI-805; Data Sheet 1	Setpoint Determination for Unit 2 Unit Vent Low Range Noble Gas	March 27, 2002
RP-8053	RMS High Alarm Setpoint/General Parameter Change; Unit 1 Essential Service Water Heat Exchanger	August 17, 1996
12-THP-6020-CHM-308	Effluent Batch Releases	Revision 5d
12-THP-6010-RPP-603	Gaseous Waste Releases (Manual Calculations)	Revision 10b
01-EHP-4030.128.228A	1-HV-AES-1 Engineered Safety Feature Ventilation Surveillance	November 21,2001
02-EHP-4030.228.228B	2-HV-AES-2 Engineered Safety Feature Ventilation Surveillance	December 7, 2001
02-EHP-4030.228.228A	2-HV-AES-1 Engineered Safety Feature Ventilation Surveillance	October 1, 2001
01-EHP-4030.128.228B	1-HV-AES-2 Engineered Safety Feature Ventilation Surveillance	December 11, 2001
01-EHP-4030.128.228B	1-HV-AES-2 Engineered Safety Feature Ventilation Surveillance	August 13, 2002
12-THP-6010-RPP.007	RP Calculation for Determination of Reference Response to Beta Disc Source Set for Eberline RDA-3A Detectors	

12-THP-6010-RPC-810	Data Sheet 1; Calibration Record for Unit 2 Condenser Air Ejector Exhaust Monitor	September 5, 2001
12-THP-6010-RPC-810	Data Sheet 1; Calibration Record for Unit 2 Vent Exhaust Monitor	October 16, 2001
12-THP-6010-RPC-810; Data Sheet 1	Calibration Record for Unit 1 Vent Exhaust Monitor	July 13, 2001
Form RP 8021	Calibration Record for Unit 1 Steam Generator Blowdown Monitor	July 6, 2002
Form RP 8021	Calibration Record for Unit 2 Steam Generator Blowdown Monitor	July 6, 2002
Form RP-8021	Calibration Record for Unit 1 Essential Service Water Monitor (East Heat Exchanger)	August 13, 2002
Form RP-8021	Calibration Record for Unit 1 Essential Service Water Monitor (West Heat Exchanger)	January 9, 2002
Form RP-8021	Calibration Record for Unit 2 Essential Service Water Monitor (East Heat Exchanger)	January 7, 2002
Form RP-8021	Calibration Record for Unit 2 Essential Service Water Monitor (West Heat Exchanger)	March 28, 2002
12-THP-6010-RPC-810; Data Sheet 1	Calibration Record for Common Unit Liquid Radwaste Line	November 15, 2001
1IHP-4030-SMP.301	Turbine Gland Seal Exhaust Condenser Vent Gaseous Effluent Flow Functional Test and Calibration	November 30, 2001
1IHP-4030-SMP.302	Auxiliary Building Ventilation Gaseous Effluent Flow Functional Test and Calibration	November 30, 2001
2 IHP-4030-SMP.401	Turbine Gland Seal Exhaust Condenser Vent Gaseous Effluent Flow Functional Test and Calibration	November 30, 2001
2 IHP-4030-SMP.402	Auxiliary Building Ventilation Gaseous Effluent Flow Functional Test and Calibration	November 30, 2001

12 THP-6010-RPP.007	RP Calculation for Determination of Low Range Noble Gas Detector Calibration Constant	June 18, 1997
12-THI-2291-ADM-012	Work Control Process	Revision 2c
12-THP-6020-CHM-322	Vent Stack Gaseous Sampling	Revision 1
	Results of Radiochemistry Cross Check Program	First and Second Quarters 2002
	Energy Calibration Records for Gamma Spectroscopy Equipment	July 1, 2002
	Efficiency Check Records for Gamma Spectroscopy Equipment	April and May 2002
	LLD Determinations for Gamma Spectroscopy Equipment	May 2002
CR 02270029	Poor Quality Evaluation of CR 02204001	September 27, 2002
	Ten Year Summary Data for Liquid and Gaseous Effluent Releases	
CR 02253014	Chemistry Liquid Scintillation Counter Beta/Alpha Analysis Methods Found Outside of Acceptance Criteria	September 10, 2002
	CR Data Base Listing for Effluent Monitoring and Controls	September 2001 - September 2002
CR 0204001	Late Channel Functional Test	July 23, 2002
	Radiation Monitoring System Health Data, A(1) Action Plans, and Reliability Improvement Plans for Variety of Effluent Monitors	2001 - September 2002
RP Self-Assessment Report	ODCM and Effluents	August 2001
Performance Assurance Field Observation	Gas Decay Tank Release	January 27, 2002
Performance Assurance Field Observation	Readiness to Perform Steam Generator Drains	January 22, 2002
Performance Assurance Audit (PA-01-06)	Chemistry Program	January 11, 2002

4OA1 Performance Indicator (PI) Verification

NEI 99-02	Regulatory Assessment Performance Indicator Guideline	Revision 2
Special Plant Procedure 2060-SFI-101	PI Data Gathering	Revision 0
PMP 7110.PIP.001	Regulatory Oversight Program PI	Revision 1
	Radiologically Controlled Area Electronic Dosimetry Exit Transactions Summary Report	January 1, 2002 through July 18, 2002
	CR Database for All Radiation Protection Department Initiated or Assigned Issues	January 1, 2002 through July 18, 2002
	Letter from J. Pollock, American Electric Power, to the US NRC, Subject: "Cook Unit 1 and 2 -- 4Q2001 -- PI Data Elements (QR and CR)"	January 17, 2002
	Letter from J. Pollock, American Electric Power, to the US NRC, Subject: "Cook Unit 1 and 2 -- 1Q2002 -- PI Data Elements (QR and CR)"	April 19, 2002
	Letter from J. Pollock, American Electric Power, to the US NRC, Subject: "Cook Unit 1 and 2 -- 2Q2002 -- PI Data Elements (QR and CR)"	July 18, 2002
	Unavailability Report for Emergency Diesel Generators	October 1, 2001 through June 30, 2002
	Unavailability Report for Auxiliary Feedwater System	October 1, 2001 through June 30, 2002
CR 01355058 (1)	Inconsistent Reporting of Unavailable Hours for the Maintenance Rule and the Reactor Oversight Process for the Same Conditions	December 21, 2001
CR 01355071 (1)	Safety System Unavailable Hours Reported in the Reactor Oversight Process for the 4Q2000 and 1Q2001 Were Reported for the Wrong Train	December 21, 2001

	Chemistry Radiochemical Analysis Results for Selected Periods in 2002, Offsite Dose Calculation Data Sheets for Selected Periods in 2001 and 2002 and Liquid /Gaseous Effluent Dose Summary Information for November 2001 - September 2002	

4OA3 Event Follow-up

4OA3.1 Unit 2 Reactor Trip and Restart Following Loss of Main Condenser Vacuum

NRC Event Notification 38993	Unit 2 Automatic Reactor Trip Due to Loss of Main Condenser Vacuum	July 22, 2002
PMP 4010.TRP.001 Data Sheet 1	Unit Two Reactor Trip Review Report	July 22, 2002
LER 316-2002-006-00	Unit 2 Reactor Trip Due to Low Condenser Vacuum	September 6, 2002
02-OHP-4021-057-006	Operation of Main and Feed Pump Condensers	Revision 11
	Shift Manager's Daily Logs	July 22, 2002
CR 02203001	Unit 2 Reactor Automatically Tripped From 100 Percent Power While Flushing Main Turbine Condenser Waterboxes	July 22, 2002
CR 02203007	Excessive Reactor Coolant System Cooldown After Automatic Unit 2 Reactor Trip	July 22, 2002
CR 02203019	The Closure Time for Unit 2 Main Turbine Stop Valve "C" Was Abnormally Slow After the Turbine Trip	July 22, 2002
CR 02203023	Procedure Enhancement for OHP-4021-057-006, Attachment 9, "Flushing of Circulating Water Side of Condenser Halves"	July 22, 2002
CR 02203026	2-MRV-230, The Steam Generator #2 Main Steam Stop Drifts Closed If the Control Switch is Not in the Open Position	July 22, 2002

4OA3.2 Pressurizer Power Operated Relief Valve Inadvertently Opened During Testing Resulting in a Loss of Reactor Coolant System Inventory and an Unusual Event

NRC Event Notification 38967	Unit 1 Declared an Unusual Event Due to Reactor Coolant System Leakage Greater Than 25 Gallons-Per-Minute During Surveillance Testing	June 6, 2002
01-OHP-4030-102-017	Pressurizer PORV Actuation Channel Calibration with Valve Operation (for Modes 1, 2, and 3)	Revision 0
01-OHP-4030-102-017	Pressurizer PORV Actuation Channel Calibration with Valve Operation (for Modes 1, 2, and 3)	Revision 1
	Daily Shift Manager's Logs	June 5, 2002 through June 6, 2002
CR 02157039	Pressurizer PORV 1-NRV-153 Opened During Testing with its Block Valve Open, Causing an Unexpected Release of Reactor Coolant System Inventory into the Pressurizer Relief Tank	June 6, 2002
CR 02157101	Evaluate Timeliness of NRC Notification for Unusual Event Declared Based on PORV Opening on June 5, 2002 at 23:00	June 6, 2002

4OA3.3 LER 315-2002-003-00, "Main Steam Safety Valves Exceeded Allowable Lift Setpoints"

LER 315-2002-003-00	Main Steam Safety Valves Exceeded Allowable Lift Setpoints	June 28, 2002
American Society of Mechanical Engineers (ASME) / American National Standards Institute (ANSI) OMa-1988	Addenda to ASME/ANSI OM-1987, Operation and Maintenance of Nuclear Power Plants	February 15, 1989
NUREG 1482	Guidelines for Inservice Testing at Nuclear Power Plants	April 1995
CR P-99-09868	High Failure Rate of the Main Steam Safety Valves "As Found" Lift Pressure	April 29, 1999

CR 02122063	1-SV-2A-2 Failed the As Found Set Point Test	May 2, 2002
CR 02123003	1-SV-1B-3 Failed the As Found Set Point Test	May 3, 2002
CR 02123037	1-SV-2B-1 Failed the As Found Set Point Test	May 3, 2002
CR 02123039	1-SV-1B-1 Failed the As Found Safety Valve Testing	May 3, 2002
CR 02123049	1-SV-1A-4 Failed the As Found Safety Valve Testing	May 3, 2002
CR 02123050	1-SV-2B-4 Failed the As Found Set Point Test	May 3, 2002
CR 02123053	1-SV-1B-4 Failed the As Found Set Point Test	May 3, 2002
CR 02125027	Main Steam Safety Valves Failed As Found Test and Were Not Adjusted As Required by the Code	May 5, 2002
CR 02198006	Incorrect Information Within Reportability Evaluation for CR 02122063	July 17, 2002

4OA3.4 LER 315-2002-005-00, "Unit 1 Manual Trip Due to Trip of East Main Feedwater Pump"

LER 315-2002-005-00	Unit 1 Manual Trip Due to Trip of East Main Feedwater Pump	August 13, 2002
CR 02165064	Manual Reactor Trip Due to a Loss of the East Main Feedwater Pump Following Start of the #13 Circulating Water Pump	June 14, 2002

4OA3.5 LER 315-2002-006-00, "Switchyard Fire Results in Violation of Technical Specification 3.0.5"

LER 315-2002-006-00	Switchyard Fire Results in Violation of Technical Specification 3.0.5	August 2, 2002
NOED-02-3-002	NRC Letter to Mr. A. C. Bakken III, Subject: "Notice of Enforcement Discretion for Indiana Michigan Power Company Regarding D. C. Cook, Units 1 and 2 (NOED-02-3-002)"	June 18, 2002

CR 02163045	1-52-L Has Had a Catastrophic Failure Resulting in a Loss of Offsite Power Sources Supplied to Reserve Feed	June 12, 2002

4OA3.6 LER 50-315-2002-007-00, "Technical Specification 3.3.3.1 Required Special Report for Inoperable Radiation Monitors"

LER 50-315-2002-007-00	Technical Specification 3.3.3.1 Required Special Report for Inoperable Radiation Monitors	August 22, 2002
CR 02174004	While Performing 1-OHP-4030-114-030, Daily Surveillance Found that the Wrong Parameters Were in the File for 1-VRA-1310 Containment High Range Area Monitor	June 23, 2002
CR 02199084	An Opportunity Existed to Avoid a Licensee Event Report, but was Missed	July 18, 2002

4OA3.7 LER 50-315-2000-008-00, "Failure to Test Essential Service Water Valves in Accordance with Technical Specifications"

LER 50-315-2000-008-00	Failure to Test Essential Service Water Valves in Accordance with Technical Specifications	December 12, 2000
CR P-00-04744	ESW from East/West Heat Exchanger Outlet Valves Past Operabilty Concern	March 27, 2000
CR 00314038	The Condition Evaluation for Condition Report 00-04744 Was Inadequate	November 9, 2000

4OA3.8 LER 50-315-2000-008-00, "Failure to Test Essential Service Water Valves in Accordance with Technical Specifications"

LER 50-315-2000-008-01	Failure to Test Essential Service Water Valves in Accordance with Technical Specifications	December 7, 2001

4OA3.9 LER 315-2000-009-00, "Failure to Perform Technical Specification Valve Position Surveillance on Leak-off Valves"

LER 315-2000-009-00	Failure to Perform Technical Specification Valve Position Surveillance on Leak-off Valves	January 8, 2001
01-OHP-4030-STP-010	Containment Isolation	Revision 18

02-OHP-4030-208-053A	ECCS [Emergency Core Cooling System] Valve Operabilty Test Train A	Revision 0
02-OHP-4030-208-053B	ECCS Valve Operabilty Test Train B	Revision 0
DCC-NEMP-306-QCN	Containment Isolation System Licensing/Design Bases Requirements	Revision 1
Design Information Transmittal B-02045-00	Containment Isolation Barrier Review	June 6, 2001
OP-1-5146A-34	Ice Condenser Refrigeration Unit 1	Revision 34
OP-2-5146A-19	Ice Condenser Refrigeration Unit 2	Revision 19
CR 00341030	Inadequate Surveillance of 1-RH 110E/W for Containment Integrity	December 6, 2000

4OA3.10 LER 50-316/2000-013-00, "Safety Injection Valve Closure at High Power Levels Could Result in Exceeding Peak Centerline Temperature Limits"

LER 50-316/2000-013-00	Safety Injection Valve Closure at High Power Levels Could Result in Exceeding Peak Centerline Temperature Limits	October 13, 2000
CR P-00-11217	Unit 2 Outside Safety Limits During High Head Safety Injection Discharge Valves Testing	August 11, 2000

4OA3.11 LER 50-315-1999-012-01, "Auxiliary Building ESF [Engineered Safety Features] Ventilation System May Not be Capable of Maintaining ESF Room Temperatures Post-Accident"

LER 50-315-1999-012-01	Auxiliary Building ESF Ventilation System May Not be Capable of Maintaining ESF Room Temperatures Post-Accident	March 15, 2002
LER 50-315-1999-012-00	Auxiliary Building ESF Ventilation System May Not be Capable of Maintaining ESF Room Temperatures Post-Accident	May 20, 1999
Institute of Nuclear Power Operations Significant Event Report 63-83	Joy Fan Blades Failures	November 8, 1983
CR P-99-07026	Component Cooling Water Pump Area Supply Fans have no Missile Protection	March 29, 1999

CR P-99-08841	Insufficient Assurance that the Auxiliary Building Ventilation is Capable of Meeting its Safety and Accident Mitigation Functions	April 20, 1999

4OA3.12 LER 50-315-1999-001-01, "General Electric HFA Relays Installed in Emergency Diesel Generators May Not Meet Seismic Qualification"

LER 50-315-1999-01-01	General Electric HFA Relays Installed in Emergency Diesel Generators May Not Meet Seismic Qualification	December 8,2000
LER 50-315-1999-01-00	General Electric HFA Relays Installed in Emergency Diesel Generators May Not Meet Seismic Qualification	February 10, 1999
Information Notice 83-19	General Electric Type HFA Relay Contact Gap and Wipe Setting Adjustments	May 5, 1993
Information Notice 88-69	Movable Contact Finger Binding in HFA Relays Manufactured by General Electric	September 29, 1988
	Daily Shift Manager's Logs	April 7, 1999 through July 5, 1999
CR P-99-00270	HFA Relays Installed in the Plant May Not Satisfy Seismic Requirements	January 6, 1999

(1) Condition report written as a result of inspection activities.