February 15, 2001

Mr. R. P. Powers
Senior Vice President
Nuclear Generation Group
American Electric Power Company
500 Circle Drive
Buchanan, MI 49107-1395

SUBJECT: D. C. COOK NUCLEAR POWER PLANT - NRC INSPECTION REPORT 50-315/01-03(DRP); 50-316/01-03(DRP)

Dear Mr. Powers:

On February 2, 2001, the NRC completed the baseline problem identification and resolution inspection at your D.C. Cook Units 1 and 2 reactor facilities. The inspection results were discussed on February 2, 2001, with the Plant Manager and other members of your staff.

The inspection was an examination of activities conducted under your license as they relate to your corrective action program and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observation of activities, and interviews with personnel.

On the basis of the sample selected for review, there were no findings of significance identified during this inspection. The inspectors concluded that problems were properly identified and evaluated within the problem identification and resolution programs. However, the large backlog of post-restart condition reports and inconsistent timeliness and effectiveness of root cause evaluations continue to challenge the organization. Also several examples were identified where effectiveness reviews for significant conditions adverse to quality had not been completed in a timely manner. In addition, while condition report evaluations ordinarily identified the correct causal factors which were effective in resolving issues, there were several examples identified where corrective actions for conditions adverse to quality were not effective in preventing recurrence.

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

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

Sincerely,

/RA/

Geoffrey E. Grant, Director
Division of Reactor Projects

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

Enclosure: Inspection Report 50-315/01-03(DRP);
50-316/01-03(DRP)

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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:	50-315/2001003(DRP); 50-316/2001003(DRP)
Licensee:	American Electric Power Company 1 Cook Place Bridgman, MI 49106
Facility:	D. C. Cook Nuclear Generating Plant
Location:	1 Cook Place Bridgman, MI 49106
Dates:	January 22 through February 2, 2001
Inspectors:	D. G. Passehl, Team Leader K. A. Coyne, Resident Inspector W. H. Scott, Electrical Inspector R. K. Walton, Reactor Engineer
Approved by:	A. Vegel, Chief Reactor Projects Branch 6 Division of Reactor Projects

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	Radiation Safety	Safeguards
● Initiating Events	● Occupational	● Physical Protection
● Mitigating Systems	● Public	
● Barrier Integrity		
● Emergency Preparedness		

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: http://www.nrc.gov/NRR/OVERSIGHT/index.html.

SUMMARY OF FINDINGS

IR 05000315/316-01-03; on 01/22/01 - 02/02/01, American Electric Power, D.C. Cook Units 1 and 2 Reactor Facilities, annual baseline inspection of the identification and resolution of problems.

The report covers a 2-week inspection by three region-based inspectors and one resident inspector.

Identification and Resolution of Problems

The inspectors determined that the licensee is effective at identifying problems and initiating condition reports at an adequate threshold. The licensee's audits and assessments were effectively managed, adequately covering the subject areas, and findings and recommendations were appropriately captured in condition reports. Generic communications were being appropriately identified for evaluation. In general, identified issues were appropriately characterized and classified, and appropriate evaluations were conducted for significant conditions adverse to quality. However, the large backlog of post-restart condition reports and inconsistent timeliness and effectiveness of root cause evaluations continue to challenge the organization. The inspectors noted several examples where effectiveness reviews for significant conditions adverse to quality had not been completed in a timely manner. In addition, although condition report evaluations ordinarily identified the correct causal factors which were effective in resolving issues, the inspectors noted several examples where corrective actions for conditions adverse to quality were not effective in preventing recurrence.

Report Details

4. OTHER ACTIVITIES (OA)

4OA2 Identification and Resolution of Problems

General Comment

The licensee's corrective action program includes four categories of condition reports. Category 1 and 2 condition reports are considered significant conditions adverse to quality and are initiated for conditions that have or reasonably could have a direct adverse affect on safety or reliability of the plant or its personnel. Category 1 and 2 condition reports require performance of a formal root cause evaluation. Category 3 condition reports are considered conditions adverse to quality and are initiated for any condition where sufficient potential exists to warrant investigation other than simple event trending and to confirm that the condition is not significant to plant or personnel safety. Category 3 condition reports require an apparent root cause evaluation. Category 4 condition reports are considered conditions adverse to quality and are initiated for any condition that has minimal impact on plant or personnel safety. No evaluation for cause is required, only correction. The program also includes Category X condition reports, which are initiated for conditions not adverse to quality and have no impact on safety-related/safety interface plant equipment or personnel safety.

The most recent revision of the licensee's corrective action program procedure, PMP 7030.CAP.001, "Corrective Action Program Process Flow," Revision 7, became effective on November 24, 2000. This revision continues implementation of the single action tracking process, which began in August 2000. The licensee implemented the single action tracking process, in part, to remove potential confusion from plant personnel on whether to write a maintenance work request, a condition report, or both for an identified deficiency. The single action tracking process allows any licensee employee to enter a human performance or process problem, an equipment problem, request for support, or a tracking item into a single action request document (i.e., electronic Single Action Tracking (eSAT)). A screening committee then performs an initial review to determine whether the item is a condition report, a work request, or both.

.1 Effectiveness of Problem Identification

a. Inspection Scope

The inspectors reviewed items selected across the seven cornerstones of safety to determine if problems were being properly identified, characterized and entered into the corrective action program for evaluation and resolution. The inspectors selected 136 condition reports from approximately 18,000 condition reports initiated between January 2000 and January 2001. The inspectors also reviewed 15 self-assessments, seven performance assurance department audits and surveillances, four engineering action plans, 34 industry and NRC generic communications, and other miscellaneous documents selected in the time period between January 2000 and January 2001. The purpose of the reviews was to verify that conditions adverse to quality were

appropriately identified in the licensee's corrective action program. The effectiveness of the audits and assessments was evaluated by comparing the audit and assessment results against self-revealing and NRC-identified issues. A listing of the specific documents reviewed during the inspection is attached to the report.

b. Issues and Findings

There were no findings identified in this area during this inspection.

The inspectors determined that the licensee was effective at identifying problems and initiating condition reports at an adequate threshold. The licensee was also effective at appropriately characterizing problems. The licensee's audits and assessments were effectively managed, adequately covering the subject areas, and findings and recommendations were appropriately captured in condition reports. Operating Experience (OE) condition reports, NRC generic communications, and industry generic communications were appropriately identified for evaluation. The inspectors identified no instances where conditions adverse to quality were being handled outside the corrective action program.

.2 Prioritization and Evaluation of Issues

a. Inspection Scope

The inspectors reviewed condition reports, including the licensee's condition report backlog, audits, and self-assessments to verify that identified issues were appropriately characterized and that appropriate analyses of the cause of problems was performed for significant conditions adverse to quality. Information that the inspectors reviewed was selected in the time period between January 2000 and January 2001. The inspectors' review included the items described below.

- The inspectors reviewed eight root cause evaluation reports associated with significant conditions adverse to quality. The inspectors assessed the licensee's analysis methodology, adequacy of root cause determination, timeliness and adequacy of identified corrective actions.

- The inspectors attended a Corrective Action Review Board (CARB) meeting to assess the effectiveness of CARB in performing reviews of root cause evaluations for significant condition adverse to quality. In addition, the inspectors reviewed the licensee's evaluation of selected industry experience information to assess if issues applicable to D.C. Cook were appropriately evaluated.

- The inspectors reviewed two downgrades of condition reports from Category 2 to Category 3 to assess the licensee's prioritization and evaluation of conditions initially identified as potential significant conditions adverse to quality.

A listing of the specific documents reviewed during the inspection is attached to the report.

b. Issues and Findings

There were no findings identified in this area during this inspection. However, the inspectors determined that the large backlog of post-restart condition reports and inconsistent timeliness and effectiveness of some root cause evaluations continue to challenge the organization.

The inspectors determined that, in general, issues were appropriately characterized and classified, and appropriate evaluations were conducted for significant conditions adverse to quality. Although some root cause evaluations lack timeliness and effectiveness, most were detailed, self-critical, and adequately identified root causes of significant conditions adverse to quality. Specified corrective actions addressed root cause conditions to prevent recurrence of significant conditions adverse to quality. Downgrades from Category 2 to 3 were appropriately justified and approved in accordance with procedural requirements.

Some specific observations are discussed below.

b.1 Root Cause Evaluations

The inspectors determined that the timeliness of root cause evaluations continues to challenge the organization. The licensee's corrective action program performance indicator program states an expectation that completion of a root cause evaluation is 40 days or less. However, at present the average time for the licensee to complete root cause evaluations for Category 1 or 2 condition reports is 146 days. The oldest active root cause evaluation, involving a Performance Assurance Department audit on security access control (CR 99-20446) was over 530 days old.

The inspectors reviewed a sample of Category 1 and 2 condition reports whose root cause evaluations were past due. The inspectors determined that there was no risk significance associated with the root causes that were past due. The inspectors also reviewed approximately 12 root cause evaluations of Category 1 and 2 condition reports and determined that, in general, root cause evaluations were detailed, self-critical, and appropriately specified the actions to prevent recurrence.

b.2 Condition Report Backlog Reduction Plan

During the extended shutdown the licensee focused on resolving problems to support safe restart of the Units. Following restart of Unit 1 in December 2000, the licensee shifted focus to resolving post-restart corrective action program items. As of December 22, 2000, there were approximately 12,000 post-restart condition reports in the licensee's backlog. The licensee's goal is to reduce the condition report backlog to zero by the end of 2002. Another goal is to reduce the timeliness of condition report resolution to 130 days overall.

The licensee defined the set of condition reports in the backlog to any condition report greater than 130 days old. This includes 40 days to complete the condition report evaluation and another 90 days to complete the actions resulting from the evaluation. At the time of this inspection licensee personnel were in process of prioritizing the

condition reports in the backlog. Plant departments were prioritizing the most significant condition reports (i.e., Category 1, 2, and 3 condition reports) and resetting the due dates. The licensee imposed a date of February 15, 2001, to complete their prioritization and set new due dates.

Plant personnel were also prioritizing Category 4 condition reports and segregating them into those that may affect plant equipment and those that should not affect plant equipment. For those that should not affect plant equipment, the licensee imposed a date of July 31, 2001, to complete their prioritization and set new due dates. For those that may affect plant equipment, the licensee was reviewing the associated work requests to ensure that the scheduled work dates were appropriate. Following the prioritization of all the post-restart condition reports, the licensee will establish a department work-down curve based on the new revised due dates.

The inspectors reviewed trend reports and discussed historical data with the licensee and determined that the licensee's condition report backlog reduction goal was reasonable. The licensee plans to tie the majority of the actions in the condition report backlog to previously scheduled work items (e.g., procedure revisions, maintenance work, modifications). In addition, the licensee eliminated duplicate tracking mechanisms via implementation of the electronic Single Action Tracking system and had data showing a marked decrease in the number of incoming condition reports initiated since the beginning of 2001.

The inspectors reviewed a sample of open Category 1 and 2 condition reports, as well as less significant condition reports, and determined that the cause evaluations and corrective actions that were put into the post-startup backlog were not items of risk significance.

b.3 Condition Report Screening Meetings

The inspector attended the following meetings associated with the corrective action program screening process:

- Screening Work Assessment Team (SWAT);
- Managers Meeting;
- CR Review Meeting; and
- OE Screening Team Meeting.

The meetings were well organized, and had good participation from a variety of plant departments. The meeting participants demonstrated a challenging and questioning attitude on each issue, conducted good discussions, and developed sound conclusions. Action requests reviewed by the SWAT team were appropriately screened as work requests or condition reports.

b.4 Corrective Action Review Board Meeting

The inspectors attended the Corrective Action Review Board (CARB) meeting on January 25, 2001. The meeting met charter requirements for quorum. The discussions were at an appropriate level with good interaction between presenters and board

members. The board focused on adequacy of the root cause determination and potential extent of condition. Of the two condition reports presented, one was rejected by the board due to the need to better develop the root cause and potential extent of condition. This was Condition Report 00265023, "Incorrect Interpretation of Containment Airlock Door Seal Test Frequency Requirements Which Partially Satisfy Technical Specification 4.6.1.2."

The licensee recently instituted a new policy of conducting pre-CARB reviews of root cause evaluations prior to the actual CARB meeting. Corrective action personnel stated that they did perform a pre-CARB review of the rejected package, but comments were not incorporated by the responsible individuals.

.3 Effectiveness of Corrective Actions

a. Inspection Scope

The inspectors reviewed condition reports, surveillances, audits, and self-assessments to verify that corrective actions commensurate with the issues were identified and implemented in a timely manner, including corrective actions to address common cause or generic concerns. Information that the inspectors reviewed was selected in the time period between January 2000 and January 2001.

The inspectors' review included Category 1 and 2 condition report root cause evaluations associated with potentially repeating issues to assess the effectiveness of the licensee's actions to prevent recurrence of significant conditions adverse to quality. The inspectors noted three categories of potentially repeating problems: (1) inadequate scaffolding control during maintenance activities, (2) two loss of offsite power events associated with switchyard activities, and (3) adverse trends in clearance and configuration control. The inspectors reviewed the root cause evaluation reports and the associated condition reports, discussed the evaluations, conclusions and specified actions with the responsible root cause evaluator or department supervisor, and verified the implementation of a sampling of corrective actions.

A listing of the specific documents reviewed during the inspection is attached to the report.

b. Issues and Findings

The inspectors determined that the licensee's corrective actions were generally effective to prevent recurrence of significant conditions adverse to quality. However, examples of recurring adverse conditions or inadequately implemented corrective actions were identified.

b.1 Scaffolding Program

In May 1999, during the Expanded System Readiness Review program, the licensee identified that the plant seismic scaffolding program was inadequate. The licensee documented this issue in CR 99-14105 and performed a root cause evaluation. Examples of scaffolding control issues identified in CR 99-14105 included:

- Unintentional operation of plant equipment due to scaffolding interference;
- Scaffolding interfering with personnel access; and
- Inadequate control of seismic and non-seismic scaffolding in the vicinity of safety-related equipment.

The licensee completed the root cause evaluation for CR 99-14105 in January 2000, and identified the root causes for scaffolding control program inadequacies as: (1) failure to perform critical assessments of the scaffolding program and (2) failure to hold people accountable for their actions. Additionally, the root cause evaluation stated "the cause of the scaffold interference with plant equipment is the failure to follow the scaffold procedure requirements." The corrective actions specified in CR 99-14105 included procedure revisions, additional training, and evaluation of installed scaffold configurations.

As discussed in NRC Inspection Report 50-315/316/2000016, Section M1.2, in June 2000, the inspectors identified three scaffolding installations that failed to meet the licensee's requirements for scaffold installations. Two of these installations involved the construction of non-seismic scaffolding in the vicinity of safety-related equipment, and the third installation interfered with the operation of a main steam enclosure blowout panel. The safety-related equipment exposed to potential impact by the scaffolding included the steam generator isolation valves, steam generator power operated relief valves, and an auxiliary feedwater pump room cooler.

Non-cited violation (NCV) 50-315/316-2000016-03 was identified in Inspection Report 50-315/316/2000016 for the licensee's failure to implement the scaffolding control requirements of Construction Head Instruction (CHI) 5080.CCD.002, "Contractor Scaffold Erection Guidelines." As a result of this NRC finding, the licensee initiated a second Category 2 condition report, CR 00-9185, to document the recurring failure to adequately control seismic scaffolding. During the root cause evaluation of the recurring failure to adequately control plant scaffolding, the licensee determined that the failure to implement CR 99-14105 corrective actions in a timely manner resulted in the recurring condition.

The licensee's failure to implement appropriate corrective actions to preclude repetitious scaffolding control failures, a significant condition adverse to quality, was a violation of 10 CFR 50, Appendix B, Criterion XVI. However, because the inadequate scaffolding had already been cited in NRC Inspection Report 50-315/316/2000016, no new violation will be cited. The licensee initiated CR 00-9185 as a result of this issue.

b.2 Effectiveness Reviews and Assessments for Action Level 1 and 2 Condition Reports Not Completed in a Timely Manner

The inspectors noted several instances where corrective actions associated with periodic assessments or effectiveness reviews were not completed in a timely manner. The instances are discussed below.

- Failure to perform periodic reviews of clearance program corrective actions. The corrective actions for CR 99-17286, which documented an adverse trend in implementation of the clearance permit system, included several actions to

perform quarterly reviews and assessments of the clearance permit system. Condition Report 99-17286, Action 57, which was closed on December 10, 1999, implemented clearance program changes to require quarterly reviews by the Clearance Permit Improvement Committee (CPIC). Additionally, Actions 60 and 61 required quarterly assessments of the clearance permit program, which were initially scheduled to be completed by March 30, 2000 and June 30, 2000, respectively.

During the year 2000, CPIC held only one of the quarterly review meetings. In addition, at the time of this inspection, the quarterly assessments from Actions 60 and 61 had not been completed and the due dates for these assessments were extended by one year. Since September 2000, three additional action Category 2 condition reports associated with clearance program deficiencies have been initiated, indicating that clearance program issues continue to challenge the licensee. The inspectors concluded that the failure to consistently perform these assessment actions from CR 99-17286 resulted in a missed opportunity to identify ineffective or weak corrective actions associated with clearance control improvements.

- Failure to complete corrective action effectiveness reviews in a timely manner. The licensee's corrective action program contains provisions for performance of effectiveness reviews on corrective actions to identify recurrence of significant condition adverse to quality. Attachment 3 to the Corrective Action Review Board (CARB) charter, "Root Cause Evaluation Presentation Template," states that effectiveness reviews should be completed within 12 months following root cause evaluation closure. The inspectors noted several examples where the licensee had not completed effectiveness reviews in a timely manner, including the following:

  - The effectiveness review for CR 99-17286, associated with an adverse trend in the clearance program, was originally scheduled to be completed by October 30, 2000. At the time of the inspection, the effectiveness review for this CR 99-17286 was past its due date of January 15, 2001.

  - The effectiveness review for CR 99-21030, associated with installation of an unauthorized ventilation system temporary modification, was originally scheduled to be completed by July 30, 2000. This review had not been completed at the time of the inspection and the due date had been extended to February 28, 2001

  - The effectiveness review for CR 99-29277, associated with a partial loss of offsite power event, had been originally scheduled to be completed by August 31, 2000. This review had not been completed at the time of the inspection and the due date has been extended to July 31, 2001.

  The inspectors concluded that, although the failure to perform timely effectiveness reviews has not resulted in a significant safety impact, delays in completing effectiveness reviews hindered the licensee's ability to identify ineffective corrective actions.

b.3 Corrective Actions for Action Category 1 and 2 Condition Reports Inconsistently or Inadequately Performed

The inspectors and the licensee have identified several occurrences where corrective actions associated with Action Category 1 or 2 condition reports had not either been completed as prescribed or performed inconsistently. The inspectors noted the following examples:

- Corrective actions implemented following a December 1999 partial loss of offsite power event included a revision to the inter-organizational interface agreement controlling switchyard activities described in Plant Managers Instruction (PMI)1030.MT-001. Section 6.3.4 of the interface agreement requires that the D.C. Cook electrical maintenance liaison attend a pre-brief for switchyard activities. Additionally, Section 5.4.1 requires that unescorted access to the switchyard be granted to personnel listed on a specific D.C. Cook Nuclear Plant Qualification Matrix. As documented in CR 00-8384, neither of these activities were adequately performed prior to a June 2000 partial loss of offsite power event related to switching activities in the switchyard. Although the licensee determined that the performance of these activities may not have prevented the June 2000 event, the inspectors concluded that this was an example of poor implementation of corrective actions from a previous significant event.

- Condition Report 00-8384, Corrective Action 2, required a revision to the switchyard interface agreement to require concurrent verification of switchyard switching activities. The prescribed action statement specified concurrent verification documentation requirements in order to verify that the verifications were being appropriately performed. The inspectors identified that, although the interface agreement was revised to require concurrent verifications and the associated corrective action closed, the interface agreement did not contain the specific documentation requirements described by the prescribed corrective action. As a result of the inspectors questions, the licensee reopened CR 00-8384 Action 2, and initiated CR 01029047 to document the failure to properly close out the corrective action.

- Condition Report 00-8384, Corrective Action 4, required that a “read-it” package describing the June 2000 partial loss of offsite power event be placed in the work control center and be read and signed by individuals requesting switchyard access. After conducting interviews with operations and training personnel, the inspectors determined that this action was inconsistently implemented. The licensee initiated CR 01029055 to document this issue.

- Condition Report 99-18475, Corrective Action 7, required adequate training be provided to operators on configuration control processes. Although this action was closed, a later condition report, CR 00-5356, identified that adequate configuration control training had not been provided to operators. Although the licensee subsequently provided operators with additional configuration control training, the cause for the improper closure of the CR 99-18475 corrective action was not addressed. The licensee initiated CR 01032040 to identify that Corrective Action 7 of CR 99-18475 was initially closed out improperly.

- Condition Report 99-21030, Corrective Action 20, specified that a memorandum be issued to operations personnel specifically requesting identification of procedural steps whose implementation may require a supporting temporary modification evaluation or operability determination. The documented completed action in Condition Report 99-21030 failed to contain the request to identify procedural steps whose implementation may require a supporting temporary modification evaluation or operability determination. The licensee initiated CR 01030017 to document the failure to complete the corrective as prescribed.

Although the inspectors concluded that none of the above examples resulted in a significant adverse impact on plant safety, they were indicative of weaknesses in the licensees implementation of identified corrective actions for significant conditions adverse to quality.

b.4 Condition Reports Inadequately Closed Out

The inspectors reviewed a listing of condition reports which were recently initiated for previous condition reports which were inadequately closed out. Specifically, the inspectors obtained a listing of condition reports initiated during the previous 6 months for previously written condition reports on equipment contained in the current licensing basis whose corrective actions were incomplete or ineffective, or whose condition report evaluation was ineffective. There were approximately 15 condition reports that fit into this classification.

The inspectors determined that identification of these issues suggests that the licensee has been proactive in identifying past problems which were inadequately evaluated and corrected. The licensee identified these problems during condition report close-out reviews performed by corrective action department personnel. Although the licensee has been proactive in identifying these problems, the examples provide supporting evidence to the existence of weaknesses in the timeliness and effectiveness of corrective actions for identified problems. The inspectors reviewed the recent condition reports initiated for previous condition reports which were inadequately closed out and identified no current safety concerns.

.4 Assessment of Safety Conscious Work Environment

a. Inspection Scope

The inspectors reviewed condition reports initiated through the employee concerns program since January 2000. The inspectors also interviewed various licensee personnel; specifically, a radiological protection technician, a performance assurance auditor, a system engineer, an employee concerns program investigator, a radwaste technician, a security armed responder, a reactor operator, a chemistry technician, a maintenance mechanic, a maintenance mechanical supervisor, and an auxiliary operator. The type of questions included in Appendix 1 to NRC Inspection Procedure 71152, “Suggested Questions For Use In Discussions With Licensee Individuals Concerning PI&R Issues,” were utilized during the interviews to assess whether conditions existed that would challenge the establishment of a safety conscious work environment.

The inspectors reviewed the following documents:

- Procedure PMI 2015, "Policy for Maintaining a Safety Conscious Work Environment," Revision 1
- Employee Concerns Program Desktop Guide, "Employee Concerns Program," Revision 0
- Employee Concerns Program Brochure, "How to Speak Out When Something Isn't Right"

b. Issues and Findings

There were no findings during this inspection. The inspectors concluded, based on information collected from personnel interviews and review of issues in the corrective action program, there was no indication of a reluctance by licensee staff to identify safety issues.

4OA3 Event Followup

.1 (Closed) Licensee Event Report 50-316/2000-014-00: Reactor Trip Signal Not Verified as Required by Technical Specifications.

On September 15, 2000, during review of corrective actions for Licensee Event Report 315/98-051-00 (reactor trip signal from safety injection not verified as required by Technical Specification Surveillance), the licensee discovered that the requirements of Technical Specification (TS) 4.3.2.1.1, Table 4.3-2, Item 9.a were not met during startup from the extended outage. The TS requires, in part, that the reactor trip breakers be demonstrated operable for Modes 1, 2, 3, and 4 operation on a refueling outage basis by verification of reactor trip breaker actuation upon a manual safety injection (SI) signal. Contrary to this requirement, Unit 2 entered Mode 4 on June 6, 2000, and Mode 3 on June 12, 2000, without verifying operability of the manual SI reactor trip breaker actuation function. Verification of reactor trip breaker operation on manual SI initiation was completed during Mode 3 on June 12, 2000.

The control rod drive system was not energized until rods were to be withdrawn in Mode 3 prior to entry into Mode 2. The control rod drive system is not capable of withdrawing control rods when the Reactor Coolant System average temperature is less than 541 degrees Fahrenheit because the motor-generator sets are procedurally deenergized. Therefore, the position of the reactor trip breakers will not affect the inserted rod position. With the control rod drive system incapable of withdrawing control rods, there was no safety significance in not performing the reactor trip breaker surveillance until Mode 3.

The inspectors reviewed the licensee's corrective and preventive actions which were documented in Condition Report P-00-11677. The inspectors determined that this issue constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the NRC Enforcement Policy. This item is closed.

.2 (Closed) Licensee Event Report 50-316/2000-011: Spent Fuel Pool Exhaust Ventilation System Inoperable During Fuel Movement.

On July 20, 2000, the licensee was performing two concurrent activities on the refuel floor with the spent fuel pool exhaust ventilation system in operation. After the maintenance activity was completed, operations secured the ventilation system but fuel was still being moved in the spent fuel pool. This condition was prohibited by Technical Specification 3.9.12 which required that the spent fuel pool ventilation system be in operation during fuel movements.

The inspectors considered this event to have been of minor safety significance since the radiological consequences of a fuel handling accident would not have challenged 10 CFR100 limits. The spent fuel pool exhaust ventilation system was inoperable during fuel movement for 1.5 hours and no problems occurred during fuel movement.

The inspectors reviewed the licensee's corrective actions and reviewed Condition Report P-00-10266. Moving fuel in the spent fuel pool without an operable fuel storage ventilation system was considered a violation of Technical Specification 3.9.12 and constitutes a violation of minor significance. This not subject to enforcement actions in accordance with Section IV of the NRC's Enforcement Policy. This item is closed.

.3 (Closed) Licensee Event Report 50-315/2000-005: Control of Auxiliary Building Crane Main Load Block Over Spent Fuel Pool.

On June 5, 2000, the licensee identified that on June 28, 1999, the auxiliary building crane was operated over the storage pool with the main load block energized and with the fuel storage pool exhaust ventilation system inoperable. Technical Specification 3.9.12 required that the spent fuel pool ventilation system be operable prior to movement of loads over the spent fuel pool. In addition, a foot note to Technical Specification 3.9.12 prohibited the main load block from being energized when operated over the spent fuel pool. The foot note was applicable to the auxiliary building cranes before the cranes were made single failure proof.

This event was considered to be of minor safety significance since the licensee had previously upgraded the auxiliary building cranes to make them single failure proof. The licensee implemented corrective actions as described in the event report and in Condition Report P-00-08156. The inspectors reviewed the corrective actions.

Operating the auxiliary building crane over the storage pool with the main load block being energized and without an operable fuel storage ventilation system was considered a violation of Technical Specification 3.9.12 and constitutes a violation of minor significance. This not subject to enforcement actions in accordance with Section IV of the NRC's Enforcement Policy. This item is closed.

.4 (Closed) Licensee Event Report 50-315/2000-003-00: Inadequate Protection of Electrical Switchgear Ventilation Structures from Tornado Hazards.

On May 15, 2000, with Unit 1 defueled and Unit 2 in Mode 5, it was determined that a condition outside the design basis of the plant existed in that the electrical switchgear

room ventilation intake and exhaust structures were susceptible to damage by tornado-generated hazards. The ventilation hoods were not adequately protected from tornado hazards, and could be blown off the roof, allowing moisture intrusion in the room, or could be crushed by high winds or a missile, blocking ventilation flow to areas of the switchgear rooms.

The postulated tornado-generated damage to the switchgear ventilation system could degrade the capability of the system to a point that would prevent plant components from performing their safety functions, and represents a non-conformance with the design criterion in the Updated Final Safety Analysis Report. An operability evaluation was performed by the licensee on June 11, 1999, for compliance with design criteria, and the switchgear room ventilation was determined to be "Operable With Non-conforming Items."

The inspectors reviewed the licensee's corrective and preventive actions which were documented in Condition Report P-99-13576. The inspectors determined that this issue constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the NRC Enforcement Policy. This item is closed.

.5 (Closed) Licensee Event Report 50-316/2000-002-00: Operation Outside Design Bases and Entry Into Technical Specification (TS) 3.0.3 Due to Non-Conservative TS.

This licensee event report involved the licensee's failure to recognize conditions resulting in the inoperability of the essential service system. The facts and circumstances surrounding this licensee event report are documented in detail in NRC Inspection Report 50-315/316/2000013. The licensee wrote CR P-00-07560 to document their investigation into this event. This item is closed.

.6 (Closed) Licensee Event Report 50-315/1999-029-01: Lack of Verbatim Compliance Results in Violations of Technical Specifications.

On December 17, 1999, it was determined that DC Cook Nuclear Plant (CNP) was not in verbatim compliance with the wording of Technical Specifications (TS) Surveillance Requirement 4.8.2.3.2.c.2 due to minor surface corrosion identified November 18, 1998, on a terminal connection of the 1-BATT-AB battery. No action was taken at the time to declare the battery inoperable in accordance with the TS, or to correct the condition.

TS Surveillance Requirement 4.8.2.3.2.c.2 requires verification, at least once per 18 months, that the 250 VDC safety-related battery cell-to-cell and terminal connections are clean, tight, free of corrosion, and coated with anti-corrosion material. Contrary to the TS requirement, on November 18, 1998, minor surface corrosion was identified; however, no action was taken to declare the battery inoperable in accordance with TS 3.8.2.4, or to correct the condition.

There is no safety significance for this event because the 1-BATT-AB and 1-BATT-CD batteries were capable of performing their safety-related functions even with the presence of surface corrosion. The cause of this event was that the licensee subscribed to a standard of TS compliance in which compliance with the intent, rather than verbatim compliance with the TS wording, was deemed to be acceptable.

The Licensee wrote Condition Report P-99-29292 to document this issue. The inspectors reviewed the licensee's corrective and preventive actions, and verified that the licensee completed/scheduled corrective actions for resolution of this issue. The facts and circumstances surrounding this licensee event report are documented in detail in NRC Inspection Report 50-315/316/99034. This item is closed.

.7 (Closed) Licensee Event Report 50-315/1999-025: Technical Specification Surveillance Requirements for Auxiliary Building Crane Not Met.

On September 29, 1999, the licensee identified that Technical Specification Surveillance 4.9.7.1, which tested the auxiliary building crane interlock, had not been performed. This interlock prevented weights of greater than 2500 pounds from being lifted over the spent fuel pool. The licensee relied on crane operator training and procedures in lieu of relying on the interlock. The licensee documented this on Condition Report 99-08476.

This issue was considered to be of minor safety significance since there were no identified instances where weights greater than 2500 pounds were lifted over the spent fuel pool. The inspectors reviewed the corrective actions and a root cause report which addressed weaknesses in the surveillance testing program.

Failing to perform Technical Specification 4.9.7.1 surveillance constitutes a violation of minor significance that is not subject to enforcement actions in accordance with Section IV of the NRC's Enforcement Policy. This condition was documented and evaluated by Condition Report 99-0991. This item is closed.

.8 (Closed) Licensee Event Report 50-315/1999-009-01: As-Left Residual Heat Removal (RHR) Safety Relief Valve Lift Setpoint Greater than Technical Specification Limit.

On March 4, 1999, the licensee identified a concern associated with the Unit 1 and Unit 2 Technical Specification (TS) RHR shutdown cooling suction relief valve lift setpoints for Reactor Coolant System (RCS) Low Temperature Overpressurization Protection (LTOP). Technical Specification TS 3.4.9.3 requires that the RHR safety valves have a lift setting of less than or equal to 450 psig in Mode 5 when the temperature of any RCS cold leg is less than or equal to 152 degrees Fahrenheit, and in Mode 6 when the head is on and fastened to the reactor vessel and the RCS is not vented through a 2 square inch or larger vent, or through any single blocked open Power Operated Relief Valve.

The TS value is an absolute value that does not include an allowable ASME Code setpoint tolerance of 3 percent. A review of Inservice Test data identified that the as-left lift set points for 1-SV-103 and 2-SV-103 were 455 and 452 psig, respectively. As a result, the valves were declared inoperable on March 10, 1999. On March 11, 1999, the licensee determined that Valve 1-SV-103 had been taken credit for in October and November 1998 to satisfy LTOP requirements when a Unit 1 Power Operated Relief Valve was inoperable.

The licensee identified that the root cause for this condition was incorrect implementation of the TS RHR relief valve lift setpoint requirement. Licensee personnel incorporated a tolerance for the lift setpoint into the IST procedure contrary to the TS.

The licensee determined that the safety significance of this event was minimal. System pressure would not have exceeded the RHR piping and component design pressure of 600 psig. In addition, analyses performed by Westinghouse showed that there was adequate margin to protect the reactor vessel with the RHR relief valve set above the TS limit.

The inspectors reviewed the licensee's corrective and preventive actions and verified that the licensee revised IST procedure 12 MHP 5070.ISI.001, "Safety and Relief Valve Testing Program," Revision 1a, to require that the as-left lift setpoints for 1-SV-103 and 2-SV-103 are below 450 psig. The inspectors also reviewed the lift settings for the valves during the most recent period of time that LTOP requirements were in effect and identified that the valves were set correctly.

The inspectors determined that this issue constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the NRC's Enforcement Policy. The licensee wrote CR P-99-04280 to document their investigation into this event. This item is closed.

.9 <u>(Closed) Licensee Event Report 50-315/1999-006-00 and -01: Fuel Crane Loads Lifted Over Spent Fuel Pool Could Impart Impact Energies Greater than Technical Specification Limits.</u>

On January 15, 1999, the licensee identified that they failed to evaluate the effect of the increased weight of the fuel assemblies and its potential affect during a postulated fuel drop accident. The licensee identified that the weight of the fuel assemblies including control rods, if inadvertently dropped, could exceed the energy impact values of the spent fuel racks. Technical Specification 3.9.7 specified that the height and weight of loads over the fuel pool be restricted to impact energies of less than 24,240 pounds. Due to the increased weight of the fuel assemblies, Technical Specification 3.9.7 was violated.

However, the licensee had previously replaced the spent fuel pool racks with racks that could withstand the impact energies of the heavier fuel but did not change the Technical Specifications. Hence, this issue was of minor safety significance. The inspectors reviewed the Condition Report P-99-0991, associated root cause, and corrective actions.

The inspectors determined that this issue constitutes a violation of minor significance that is not subject to enforcement actions in accordance with Section IV of the NRC's Enforcement Policy. This condition was documented and evaluated by Condition Report P-99-0991. This item is closed.

.10 (Closed) Licensee Event Report 50-315/1999-005-01: Reactor Protection System (RPS) Actuations During Rod Drop Testing.

On February 11, 1999, during a review of industry Licensee Event Reports, Engineering personnel questioned past DC Cook RPS actuations during rod drop surveillance testing. Review of past performances of rod drop testing revealed several cases in which manual actuation of the RPS occurred during Unit-1 cycle 14 on May 5, 1994, and during Unit-2 Cycle 8 on October 13, 1990.

When unplanned problems were encountered during performance of the rod drop surveillance, opening of the reactor trip breakers was a conservative action. There was no safety significance due to these manual actuations of the RPS, as a manual actuation of the RPS enables the rod control system to be reset at a known rod configuration. In all cases, the manual actuation of the RPS during rod drop testing were not in response to adverse plant conditions.

The root cause for this condition was found to be a lack of knowledge on NRC requirements regarding preplanned manual actuations of the reactor trip breakers and surveillance procedure inadequacies. The inspectors reviewed the licensee's corrective and preventive actions which were documented in Condition Report P-99-02423. The inspectors determined that this issue constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the NRC Enforcement Policy. This item is closed.

.11 (Closed) Licensee Event Report 50-315/1999-002-00: Failure to Perform Technical Specification Surveillance Test for Pressurizer Power Operated Relief Valves.

On January 13, 1999, with Unit 1 depressurized in Mode 5, surveillance test section personnel determined that the reactor coolant system pressurizer power operated relief valves (PORVs) had not been tested as required by Technical Specification (TS) Surveillance Requirements 4.4.9.3.1a and 4.4.9.3.1e.2.(a) for low temperature overpressure (LTOP) mitigation. The related surveillance procedure was required to be performed by January 10, 1999, but was not completed until January 13, 1999.

Because of the missed surveillance the LTOP PORVs had become inoperable on January 10, 1999. Since the operators were not initially aware of the missed PORV surveillance, action required by TS 3.4.9.3 to block open one PORV was not taken. Safety significance was minimal since one PORV was already open, but not blocked open, at the time of the event for pressure control of the reactor coolant system. In addition, the licensee successfully completed testing within 10.5 hours after discovering the issue. No adjustments to the PORVs were necessary demonstrating that the valves would have responded as required.

The licensee determined the root cause to be inadequate scheduling controls. The licensee's Nuclear Plant Maintenance (NPM) database showed the procedure to be due on January 15, 1999, with the grace period for performing the surveillance ending on January 22, 1999. However the NPM due date was wrong because data had not been entered correctly for the previous (December 1998) surveillance. This caused NPM to generate an erroneous surveillance due date of January 15, 1999.

As corrective action, the licensee instituted additional direct management oversight to verify that all TS surveillances were current and to improve the accuracy of future surveillance scheduling. This included emphasis on personal accountability standards and proper use of the plant's scheduling software. The inspectors reviewed the licensee's planned corrective and preventive actions and identified no concerns. In addition, the inspectors performed an independent review of TS surveillances and recurring preventive maintenance tasks on safety-related equipment to verify that none were past due. The inspectors identified no discrepancies.

The inspectors determined that this issue constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the NRC's Enforcement Policy. The licensee wrote CR P-99-00930 to document their investigation into this event. This item is closed.

4OA6 Management Meetings

Exit Meeting Summary

The team presented the inspection results to Mr. R. P. Powers and other members of licensee management at the exit meeting held on February 2, 2001. The licensee acknowledged the findings presented. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

NRC Personnel
G. Grant, Director, Reactor Projects, RIII
A. Vegel, Branch Chief, RIII
D. Passehl, Project Engineer, RIII
B. Bartlett, SRI

AEP Personnel
R. Powers, Senior Vice President
C. Bakken, Site Vice President
J. Pollock, Plant Manager
T. Noonan, Director, Performance Assurance
M. Horvath, Employee Concerns Program Manager
M. Danford, Corrective Action Department Manager
R. Gaston, Regulatory Affairs Manager
D. Moul, Assistant Operations Manager
G. Proulx, Production Engineering Supervisor
J. Walker, Operations Corrective Action Supervisor
R. Crane, Regulatory Affairs Compliance Supervisor

ITEMS OPENED , CLOSED, AND DISCUSSED

Opened

None

Closed

LER 50-316/2000-014-00	Reactor Trip Signal Not Verified as Required by Technical Specifications.
LER 50-316/2000-011	Spent Fuel Pool Exhaust Ventilation System Inoperable During Fuel Movement.
LER 50-315/2000-005	Control of Auxiliary Building Crane Main Load Block Over Spent Fuel Pool.
LER 50-315/2000-003-00	Inadequate Protection of Electrical Switchgear Ventilation Structures from Tornado Hazards.
LER 50-316/2000-002-00	Operation Outside Design Bases and Entry Into Technical Specification (TS) 3.0.3 Due to Non-Conservative TS.
LER 50-315/1999-029-01	Lack of Verbatim Compliance Results in Violations of Technical Specifications
LER 50-315/1999-025	Technical Specification Surveillance Requirements for Auxiliary Building Crane Not Met.
LER 50-315/1999-009-01	As-Left Residual Heat Removal (RHR) Safety Relief Valve Lift Setpoint Greater than Technical Specification Limit.

LER 50-315/1999-006-00 and -01	Fuel Crane Loads Lifted Over Spent Fuel Pool Could Impart Impact Energies Greater than Technical Specification Limits.
LER 50-315/1999-005-01	Reactor Protection System (RPS) Actuations During Testing Not Previously Reported.
LER 50-315/1999-002-00	Failure to Perform Technical Specification Surveillance Test for Pressurizer Power Operated Relief Valves.

Discussed

None

LIST OF DOCUMENTS REVIEWED

D.C. Cook Procedures:

CHI 5080.CCD.002	Contractor Scaffold Erection Guidelines, Revision 1
DTG-7030.CAP.001	Desk Top Guide for Performing Root Cause or Apparent Cause Analysis, Revision 0
12 MHP 5021.001.034	Safety Valve Bench Testing, Revision 8
12 MHP 5021.SCF.001	Scaffolding Guidelines, Revision 0
12 MHP 5070.ISI.001	Safety and Relief Valve Testing Program, Revision 1a
01 OHP 4024.102	Annunciator #102 Response: Miscellaneous Area Fire System, Revision 6
PMP 2291.EXE.001	Work Management Activity Execution Process, Revision 3
PMP 2291.PLN.001	Work Management Activity Planning Process, Revision 3
PMP 4030.001.001	Impact of Safety-related Ventilation on the Operability of Technical Specification Equipment, Revision 3
PMP-7030.CAP.001	Corrective Action Program Process Flow, Revision 7
PMI-1030.MT.001	Inter Organizational Agreement Between the AEP Energy Delivery and Customer Relations Group and the AEP Nuclear Generation Group for Assistance to Cook Nuclear Plant, Revision 2
PMI-5030	Preventive Maintenance, Revision 12
PMI-7030	Corrective Action Program, Revision 29
MHI-5030	Preventive Maintenance Tasks, Revision 14
OHI-5030	Preventive Maintenance Testing and Routine Equipment Operation for Non Technical Specification Equipment
EHI 5030	Preventive Maintenance, Revision 0
PMP 5030.001.003	Preventive Maintenance, Revision 9

Condition Reports:

P-97-02312	RWST Level Indication may read higher than actual level due to transmitter locations and flow induced bias.
P-98-00913	Discrepancies were identified between emergency operating procedures and accident analysis for CT spray system.
P-98-01905	Foreign Material and various pieces of solid debris found during internal inspection of U1 lower CTS spray ring.
P-98-04574	Failure of Transformer #2 in the 765 switchyard resulted in loss of power to Train A CD 4 Kv buses.
P-98-06496	Technical Specification 4.3.2.1.1, Table 4.3.2. item-9 requirements on a manual Safety Injection.
P-98-07066	Hydrostatic Testing of 1W CTS heat exchanger failed due to leakage.
P-99-00930	Pressurizer PORV Interlock Bistables Testing Has Exceeded its TS Allowable Grace Period
P-99-01657	Program for generation of emergency operating procedures at the Cook plan has broken down
P-99-02423	Did not report manual actuation of the Reactor Protection System during rod drop testing when unplanned problems occurred.

P-99-04280	RHR Shutdown Cooling Line Relief Valve Set Point May Not Meet TS Requirements of a Setting less than or Equal to 450 Psig
P-99-05624	Perform root cause investigation of U1 CD EDG overload condition that occurred during run of EDG on 3/14/99.
P-99-06314	Reactor coolant pump No. 1 seal leak-off rates have typically run well below 3.0 gpm
P-99-09901	LER 315/99-006, Fuel Crane Loads Lifted Over Spent Fuel Pool Could Impart Impact Energies Greater than Technical Specification Limits
P-99-10898	Condition report for tracking open effectiveness reviews from CARB approved condition reports
P-99-13576	ESRR - Effects of tornado on SWGR ventilation.
P-99-14105	Plant seismic scaffolding program is not adequate to assure that currently installed scaffolding meets necessary qualifications
P-99-15072	4kV Degraded Voltage relay technical specification lower allowable limit is not adequate to protect connected safety-related motors.
P-99-17286	Potential adverse trend involving equipment clearances
P-99-18475	Adverse trend in operational configuration control
P-99-21030	Unit 2 AB battery room door blocked open and temporary modification installed without temporary modification evaluation and authorization
P-99-21691	Stop work order issued due to negative events surrounding implementation of clearance permit program
P-99-29277	Unit 2 Transformer 2-TR201CD Pressure Relay Actuation
P-99-29292	Identified during NRC Inspection and follow-up investigation that CNP has not meant “both the intent and exact wording of the specification” for T.S. 4.8.2.3.2.c.2.
P-99-29312	Stop work order issued to Saint Joseph Division for all work activities which may impact essential offsite power supplied to Cook
P-00-00658	Unit 2 AB DG Room supply fan in full outside air mode is less than required
P-00-00902	Inadequate Plant review of NRC Information Notice 97-78.
P-00-02438	Potential concern here at Cook borne of OE10536, use of DC Scout ground detection equipment.
P-00-02442	Emergency Plan Drill Completion Documentation Inadequate
P-00-02445	INPO Industry Operating Experience - 3 related OE’s involving static switch control boards on SCI inverters.
P-00-02639	The administrative deficiencies that caused CR-99-7078 to be generated, to identify a declining trend in the Emergency Preparedness Program performance, still exist.
P-00-02975	Unit 2 Steam Generator Rupture Overfill Analysis Non-Conservative.
P-00-03137	During OE Group screening of OE10688, it was determined that this OE was potentially applicable to Cook.
P-00-03233	Calculation 2-E-N-PROT-PEN-001, Rev 0, Ground Fault Relay Protection Inadequately Evaluated.
P-00-03247	PA, in its review of the Corrective Action Program’s readiness for restart, not examples of inconsistent consideration for, and untimely implementation of, interim actions for some CR’s.

P-00-04535	During routine review of Operating Experience items, it was determined that Cook may have a problem with the quality of various lube oil sightglasses such as described in OE10764.
P-00-05091	DITs Prepared to Support ESW Flow Balancing may have Violated Design Control Procedures.
P-00-05356	During Performance of 2-OHP 4021.008.001, found vents and drains had been opened for 2-EHP 4030.STP.203.
P-00-05677	Essential Service Water Radiation Monitors plugged with sand and silt.
P-00-05907	Issuance of 10CFR Part 21 by Foxboro for loss of seal integrity on face in certain transmitter face covers.
P-00-06401	Remote air and well sampling stations are only accessible via two track roads. Roads need regular maintenance.
P-00-06737	A programmatic weakness in the assignment of security officers to tasks for which their qualifications have expired.
P-00-06765	This trend CR documents a potential programmatic weakness associated with the design change program.
P-00-06797	Primary-to-secondary leakrate monitoring program requires review/possible update in light of operation experience (OE10960) event.
P-00-06820	RHR Safety-Related Environmental Qualified Motors may have been refurbished with unqualified non-metallic materials.
P-00-07063	Graphical depiction of the EDG Power Factor Operating Range not Documented in an Engineering Design Transmittal.
P-00-07233	Some security systems are not covered by a Preventive Maintenance Program.
P-00-07304	Contrary to security procedure, a security officer removed an item from a pocket during a pat down search.
P-00-07393	Contrary to PMP-7030, CAP.001, an action item was not generated for a corrective action to prevent recurrence for CR 99-27742.
P-00-07560	TS 3.0.3. Was Potentially Entered in March 1997 Without the Entry into the TS Being Recognized
P-00-07980	Contrary to the Occupational Safety and Health Administration Regulation Standard, there is nod documented test, inspection, or recall program for rigging equipment issued from the tool crib.
P-00-07999	Evaluate OE on Rx trip following loss-of-inverter at McGuire for applicability to Cook.
P-00-08156	LER 315/00-005, Control of Auxiliary Building Crane Main Load Block over Spent Fuel Pool
P-00-08384	Trip of 34.5 kV Circuit Breaker BC and Subsequent Loss of Reserve Feed Power to Units 1 and 2 Train A Buses
P-00-08741	AFW motor operated discharge valves need their intermediate limit switch positions verified prior to power operation.
P-00-08989	Control Bank A Withdrew During Startup Instead of Shutdown Back A
P-00-09128	Engineering CR's do not consistently meet corrective action program or engineering department quality expectations as determined by the Engineering Corrective Action Review Committee.
P-00-09145	Electrical bus clearance not signed onto during bus ground removal

P-00-09167	NRC identified scaffolding interfering with Unit 2 West Main Steam Enclosure
P-00-09175	NRC identified non-seismic scaffolding outside the Unit 2 West auxiliary feedwater pump
P-00-09185	NRC identified non-seismic scaffolding in the Unit 2 East Main Steam Enclosure
P-00-09197	Actual Power was 26.2 percent when Indicated Power was 23 percent
P-00-09960	Potential adverse trend for clearance permit system processes
P-00-09990	Capturing and Trending of Rework does not meet the Definition of Rework in PMP 2291.PLN.001.
P-00-10109	There are no AEP approved drawings for 1-CCR-460 and 1
P-00-10185	CR 99-04235 was written in March of 1999 identifying that 1/2 CCW-215, the CCW Surge Tank Vacuum breaker valves should be added to the IST Program.
P-00-10241	A hard contact condition exists between the end of the lube oil header on the north side of emergency diesel 1-OME-CD and a conduit fitting.
P-00-10251	Ineffective corrective actions to prevent recurrence of Industrial/ Radiological deficiencies.
P-00-10266	Spent Fuel Pool Ventilation system was inoperable during fuel movements in the spent fuel pool.
P-00-10312	CR 99-3025 evaluation for 1-1TI-310 (East RHR Htx Outlet Temperature), infers that a calibration range of 90 - 100 Fahrenheit is acceptable.
P-00-10367	WIN Team Access Database for Tracking Deficiency Tags does not interface with NPM so rework not properly identified.
P-00-10412	Diesel Generator AB Room Supply Fan Air flow lower than required.
P-00-10740	Deficiency tags not captured in work management process attached to plant equipment.
P-00-10998	Deficiency tags returned from WIN team and not captured in the work control process.
P-00-11110	During performance of work on U2 ESW pump, several FME items were identified that did not meet FME requirements.
P-00-11210	Operations point-of-contact for the Leakage Monitoring Program not clearly established and/or communicated.
P-00-11227	Failure to increase inservice testing frequency after the Unit 2 West containment spray pump entered the vibration alert range
P-00-11288	Unit 2 Thermal Power 10 minute average exceeded 100 percent power
P-00-11298	During a final review of this previously closed CR, it could not be determined that we took actions or evaluated the discrepancy identified by CR 99-07828.
P-00-11563	Calculation to determine CCW Temperature Uncertainty did not identify cooldown capability within the calculation impact assessment
P-00-11677	Possible Trend Identified by Plant Management in Verbatim TS Requirement Compliance
P-00-11677	Possible cognitive trend identified by plant management in verbatim technical specification requirement compliance.

00237022	An adverse trend has been identified in the operations department in the area of human performance
00240005	Expansion Joint for the Unit 1 South Essential Service Water Pump Impacts System Reliability
00242197	The AOV Program used Non-conservative value for maximum differential pressure for CCW AOVs.
00243179	Emergency Planning did not Conduct and Augmentation Drill in the second half of 1999
00253001	Operators Not Consulted for Rejections of Work Requests
00258047	Inadequate clearance boundary protection for diesel generator air compressor maintenance
00259061	1-BC-B Current limit could not be adjusted to accepted value.
00259064	Literal Technical Specification Requirements Not Met for Reactor Protection System Surveillance
00260154	Unit 2 East Component Cooling Water Pump Has Two Oil Leak
00261030	Operations Is Not Conducting Prompt Operability Reviews in a Timely Manner
00265023	Incorrect interpretation of containment airlock door seal test frequency requirements
00265037	Cable and Conductor Labeling Associated with Unit 1 Refueling Water Storage Tank to East Containment Spray Pump Suction Shutoff Valve 1-IMO-215 Do Not Agree with Wiring Drawings
00265039	NRC Identified issues with Condition Reports during a review of the Spent Fuel Pool Cooling System.
00266029	Allowable Functional Failures for the 250 VDC system have been exceeded.
00269022	Foreign Material Found in Component Cooling Water Heat Exchanger and Upstream Piping
00269067	Inconsistent RCS Volumes Used for Calculations and Documentation Relating to Reactivity Changes
00270017	VT-2 Inspection Not Performed on Unit 2 West Component Cooling Water Heat Exchanger
00271030	Unit 1 CD Diesel Jacket Water Cooler Essential Service Water Outlet Relief Valve Failed As-found Set Pressure Test
00273070	Unit 1 East Residual Heat Removal Heat Exchanger Failed As-found Set Pressure Test
00273083	Conflicting Design Information Exists for the Air Temperature in the Room with the Main Steam Containment Penetrations
00277037	NRC Identified Potential Violation related to Development and Implementation of Performance Monitoring Goals for a(1) systems.
00278056	DCP Closeout Documentation is not being controlled in accordance with procedural requirements.
00278060	Expectations for Calculation Quality Are Not Being Met
00279001	Inadequate Evaluation for Hydraulic Locking for Nonessential Service Water Containment Isolation Valves
00280065	LER 315/2000-003, Inadequate Protection of Electrical Switchgear Ventilation Structures from Tornado Hazards
00288033	Unit 2 AB Emergency Diesel Generator Starting Air Compressor 2-QT-142-AB1 Outlet Check Valve Failed IST Test

00291005	Inadequate Closure of Condition Report Involving Seismic Classification of Refueling Water Purification System
00293004	Damaged Pyrocrete on the Roof of the Unit 1 West Motor Driven Auxiliary Feedwater Pump Room
00306007	Inadequate clearance provided flowpath from refueling water storage tank to containment sump
00313047	Consideration of Industry and Plant Operating Experience was not identified in procedure PMP 2291.PLN.001.
00314038	Original Essential Service Water Flow Balance Procedure Did Not Fully Test the Operability of Component Cooling Water Heat Exchanger Outlet Valves
00323001	ICM-305 and 306 were declared inoperable.
00323045	CR 99-23241 identified that valve 1-FW-123 and valve 1-CCW-163 were replaced with new 8"-150# Henry Pratt butterfly valves weighing 228 pounds.. The associated SIDS items were deferred to post-restart on the basis that the existing piping system calculation used a valve weight of 244 pounds, which enveloped the weight of the new valve.
00326040	CR 293044 Condition Evaluation was answered to repair the damaged pyrocrete per JOA C46612 after investigation found that the subject piping support did not move to damage the pyrocrete. This answer contradicts the reason C46612 was initiated.
00326097	Failure to implement timely corrective actions to address Maintenance Rule A.1 status of RMS.
00327036	PMP-7030-OPR.001 states that the scope of ODE recommended corrective actions shall be adequate to restore the SSC to full Qualification. The ODE for CR 00299024 did recommend taking corrective actions to ensure full compliance with design and licensing basis requirements.
00335034	Subject: OE11617 - Fuses blow on on-line inverters resulting in transfer of power to alternate source, potentially applicable to Cook.
00342056	CR 99-10252 was created as a result of the 100 percent EQ Component Walkdown and identified several conditions associated with SG Blowdown isolation valve 1-DCR-310.
00343042	CR 98-2153 identified a discrepancy between the description of the underfrequency and undervoltage reactor trips given in Section 7.2.2 of the UFSAR and the actual plant configuration.
00350095	During routine review of Operating Experience reports, it was determined that OOE11692 “Turbine Control Valve Fluctuations”, was potentially applicable to Cook’s Unit 1.
00350129	This ESAT has been initiated to identify a potentially inadequate/ premature resolution to ECAP 00323040, which was closed on November 24, 2000, based on a procedure change which has not yet been implemented.
00351019	Component Cooling Water from North Safety Injection Pump Lube Oil Cooler Shutoff Valve Found out of Position
00359004	2-DG-104C Check Valve Failed Surveillance
00360011	Clearance tag inadvertently lifted with clearance in an “accept” status

00361045	Contrary to PMI-7030, Corrective Action Program, ineffective corrective action was taken in response to CR 00354004 concerning compensatory/contingency actions.
01000508	OE 11776 describes problems with the Limitorque MOV torque switch roll pin causing a failure of the MOV motor.
01002017	During routine review of incoming external Operating Experience reports, it was determined that the problems described in OE11706 "Loading of Reactor Coolant Filters" are similar to problems noted at Cook.
01008011	Contrary to PMP 7030.OE.001, Regulatory Issue Summaries entered into POE have not received initial screening for potential applicability to DC Cook.
01015040	Entered TS Action statement 3.2.6, "Allowable Power Level - APL," due to 10 minute average thermal power exceeding 100 percent power.
01029047	NRC identified that the action taken for Action #2 in CR 00-8383, does not fully address the prescribed action with regard for documentation of concurrent verification for switchyard switching activities.
01029049	Administrative closure of corrective actions in CR 99-29277 was not performed in a timely manner.
01029055	NRC identified that corrective actions for CR 00-8384, Action 4, associated with use of a read and sign package required for switchyard key issuance was inconsistently performed.
01023024	Corrective Actions for CR 96-1482 have not been implemented.
01030017	NRC identified action completed for CR 99-21030, Corrective Action 20 did not match prescribed action.
01032040	NRC identified that CR 99-18475, Action 7, associated with operational configuration control training was initially closed out improperly.

Condition Reports Initiated As a Result of NRC Inspection:

01029047	CR 00-08384 Action Taken #2 and PMI-1030.MT-001, Revision 2 does not address the requirement for the concurrent verifier to initial each verification step on the switching orders, and that a copy of the switching orders will be filed with the work package.
01029049	Some of Condition Report 99-29277 Prescribed Actions were completed and the Actions Taken in eCAP were not closed out.
01029055	This ESAT is generated to identify a potential non-compliance with Action #4 of P-00-8384 (Partial loss of power event of June 2000).
01030016	The NRC PI&R team identified that Engineering Action Plan 00-441 and a procedure change did not reference a CR.
01030017	The extent of condition for CR 99-21030 makes reference to an action that was performed that does not match the action requested.
01031013	An inspection of the Corrective Action Program by the NRC has identified examples of less than adequate interim corrective actions

	and failure to implement corrective actions in a timely manner to prevent recurrence of significant conditions adverse to quality.
01031025	NRC inspectors identified in interviews that some personnel did not feel proficient in the use of eSAT.
01032040	The NRC identified that a prescribed action for CR 99-18475-07 was closed without proper actions being taken to prevent recurrence.

Licensee Self-Assessment Reports:

SA-1999-RCL-004	Operating Experience Program
SA-2000-CAP-008	"Principles for Effective Self-Assessment and Corrective Action Programs" Benchmark Assessment
SA-2000-ENP-023	Generic Letter 89-10 MOV Program Implementation Assessment
SA-2000-ENP-031	Evaluation of the Implementation of 10 CFR 50.65(a)(4), Assessment of Risk Resulting from Performance of Maintenance Activities
SA-2000-MNT-003	Winterization/Summerization
SA-2000-MNT-007	Scaffold Program
SA-2000-MNT-012	Control of Contractors
SA-2000-NED-007	Procedural Impact Instructions
SA-2000-NFG-008	Backlog Management
SA-2000-OPS-009	Operator Activities in Plant and Simulator: Standards Adherence
SA-2000-OPS-010	Shutdown Risk Assessment
SA-2000-RPS-002	Radioactive Source Control
SA-2000-WCA-005	Surveillance Program Effectiveness (3rd Quarter 2000)
SA-2000-WCA-008	Surveillance Program Effectiveness (4th Quarter 2000)
SA-2000-WCA-014	Surveillance Program Effectiveness (Baseline)

Licensee Surveillances and Audits:

SR-00-005	Follow-Up to Ineffective Programs for 1999 Audits
SR-00-013	Identification, Tracking and Closure of Non-Cited Violations
SR-00-017	Review of Action Category 1 and 2 CR Backlog
PA-00-07	Radiation Protection REMP/ODCM
PA-00-08	Plant Security
PA-00-09	Personnel Selection and Administrative Controls, Training, and Qualification
PA-00-12	Corrective Action, Corrective Maintenance, System Integrity, and Foreign Material Exclusion

NRC Information Notices:

IN 95-03	Supplement -2 Loss of reactor coolant inventory and potential loss of emergency mitigation functions while in a shutdown condition.
IN 99-34	Potential fire hazard in the use of polyalphanolefin in testing of air filters.
IN 2000-02	Failure of criticality safety control to prevent uranium dioxide powder accumulation.

IN 2000-04	Enforcement sanction for deliberate violations of NRC employee protection requirements.
IN 2000-06	Offsite power voltage inadequacies.
IN 2000-10	Recent events resulting in extremity exposures exceeding regulatory limits.
IN 2000-14	Non-Vital bus fault leads to fire and loss of offsite power.
IN 2000-17	Crack in weld area of reactor coolant system hot leg piping at V. C. Summer.
IN 2000-20	Potential loss of redundant safety-related equipment because of the lack of high-energy line break barriers.
IN 2000-21	Detached check valve disc not detected by use of acoustic and magnetic nonintrusive test techniques.

Job Orders:

ROO72605	Perform ISI Set Point Test/Inspection on Valve 1-SV-103
C0051566	Inspect Bolting and Set Pressure on Valve 2-SV-103

Miscellaneous Documents:

List of Surveillances and Recurring Preventive Maintenance Tasks
past Their Scheduled Due Dates

Engineering Action Plans
00-521, 00-523, 00-533, 00-545 - Address Adverse Trend in Quality of Calculations

Corrective Action Review Board Charter, Revision 9
Operations Department November 2000 Performance Report
Monthly Corrective Action Program Performance Indicator Report, December, 2000

LIST OF ABBREVIATIONS

AES	Engineered Safety Features Ventilation
AFW	Auxiliary Feedwater System
ASME	American Society of Mechanical Engineers
CCW	Component Cooling Water
CFR	Code of Federal Regulations
CR	Condition Report
CVCS	Chemical and Volume Control System
D/G	Diesel Generator
DRP	Division of Reactor Projects
ECCS	Emergency Core Cooling System
EMT	Emergency Medical Technician
ESF	Engineered Safety Features
ESW	Essential Service Water
FME	Foreign Material Exclusion
IST	Inservice Testing
JO	Job Order
LER	Licensee Event Report
LOCA	Loss of Coolant Accident
LTOP	Low Temperature Over Pressure
MC	Manual Chapter
MHP	Maintenance Head Procedure
MOV	Motor Operated Valve
MPFF	Maintenance Preventable Functional Failure
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
NRR	Nuclear Reactor Regulation
OE	Operating Experience
OHI	Operations Head Instruction
OHP	Operations Head Procedure
OSO	Operations Standing Order
PDR	Public Document Room
PMI	Plant Manager’s Instruction
PMP	Plant Manager’s Procedure
PMT	Post-maintenance Testing
PORV	Power Operated Relief Valve
PPC	Plant Process Computer
RCS	Reactor Coolant System
RHR	Residual Heat Removal
RWST	Refueling Water Storage Tank
SFP	Spent Fuel Pool
SRO	Senior Reactor Operator
SSC	Structures, Systems, and Components
STP	Surveillance Test Procedure
TDAFP	Turbine Driven Auxiliary Feedwater Pump
TDB	Technical Data Book
TS	Technical Specification
URI	Unresolved Item

UFSAR	Updated Final Safety Analysis
VAC	Volts, Alternating Current
VDC	Volts, Direct Current
VIO	Violation