



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, IL 60532-4352

October 6, 2008

Mr. Michael W. Rencheck  
Senior Vice President and  
Chief Nuclear Officer  
Indiana Michigan Power Company  
Nuclear Generation Group  
One Cook Place  
Bridgman, MI 49106

**SUBJECT: D. C. COOK NUCLEAR PLANT, UNITS 1 AND 2, PROBLEM IDENTIFICATION  
AND RESOLUTION INSPECTION (05000315/2008-007; 05000316/2008-007)**

Dear Mr. Rencheck:

On August 29, 2008, the U. S. Nuclear Regulatory Commission (NRC) completed a routine biennial Problem Identification & Resolution (PI&R) inspection at your D.C. Cook Nuclear Power Plant. The enclosed report documents the inspection results, which were discussed on August 29 with members of your staff.

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

On the basis of the sample selected for review, there were no findings of significance identified during this inspection. The team concluded that problems were properly identified, evaluated, and resolved within the Corrective Action Program (CAP). However, during the inspection, several examples of minor problems were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system

M. Rencheck

-2-

(ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

***/RA/***

Ross Telson, Chief  
Projects Branch 4  
Division of Reactor Projects

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

Enclosure: Inspection Report 05000315/2008-007; 05000316/2008-007  
w/Attachment: Supplemental Information

cc w/encl: L. Weber, Site Vice President  
J. Gebbie, Plant Manager  
G. White, Michigan Public Service Commission  
Michigan Department of Environmental Quality  
Planning Manager, Emergency Management and Homeland  
Security Division, Michigan State Police Department  
T. Strong, State Liaison Officer

M. Rencheck

-2-

(ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Ross Telson, Chief  
Projects Branch 4  
Division of Reactor Projects

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

Enclosure: Inspection Report 05000315/2008-007; 05000316/2008-007  
w/Attachment: Supplemental Information

cc w/encl: L. Weber, Site Vice President  
J. Gebbie, Plant Manager  
G. White, Michigan Public Service Commission  
Michigan Department of Environmental Quality  
Planning Manager, Emergency Management and Homeland  
Security Division, Michigan State Police Department  
T. Strong, State Liaison Officer

DOCUMENT NAME: G:\COOK\COOK PI&R.DOC

Publicly Available       Non-Publicly Available       Sensitive       Non-Sensitive

To receive a copy of this document, indicate in the concurrence box "C" = Copy without attach/encl "E" = Copy with attach/encl "N" = No copy

OFFICE	RIII		RIII		RIII		RIII
NAME	RTelson for RLerch:cms		RTelson				
DATE	10/3/08		10/6/08				

**OFFICIAL RECORD COPY**

Letter to M. Rencheck from R. Telson dated October 6, 2008

SUBJECT: D.C. COOK NUCLEAR PLANT PROBLEM IDENTIFICATION AND  
RESOLUTION 05000315/2008-007; 05000316/2008-007

DISTRIBUTION:

RidsNrrDorLpl3-1

RidsNrrPMDCCook Resource

Tamara Bloomer

RidsNrrDirIrib Resource

Mark Satorius

Kenneth Obrien

Jared Heck

Carole Ariano

Linda Linn

Cynthia Pederson (hard copy - IR's only)

DRPIII

DRSIII

Patricia Buckley

Tammy Tomczak

[ROPreports@nrc.gov](mailto:ROPreports@nrc.gov)

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-315; 50-316  
License No: DPR-58; DPR-74

Report No: 05000315/2008-007; 05000316/2008-007

Licensee: Indiana Michigan Power Company

Facility: D.C. Cook Nuclear Power Plant, Units 1 and 2

Location: Bridgman, MI

Dates: August 11, 2008 through August 29, 2008

Inspectors: J. Ellegood, Senior Resident Inspector,  
Palisades Nuclear Power Plant  
P. LaFlamme, Resident Inspector,  
D. C. Cook Nuclear Power Plant  
C. Brown, Reactor Inspector, DRS  
M. Jones, Reactor Inspector, DRS

Approved by: R. Telson, Chief  
Branch 4  
Division of Reactor Projects

Enclosure

## **SUMMARY OF FINDINGS**

IR 05000315/2008-007; 05000316/2008-007; 08/11/2008 – 08/29/2008; D. C. Cook Nuclear Power Plant, Routine Biennial Problem Identification and Resolution Inspection.

This inspection was conducted by four regional inspectors. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

### **Identification and Resolution of Problems**

The inspection team concluded that, based on the samples reviewed, the corrective action (CA) program was capable of effectively identifying, evaluating, and resolving issues. The licensee staff's actions were in compliance with the facility's CAP and 10 CFR Part 50, Appendix B requirements. Specifically, the inspectors concluded that licensee personnel were identifying plant issues at a low threshold, entered the plant issues into the station's CA program in a timely manner, performed an adequate evaluation of the issue and implemented corrective actions in an effective manner. Minor examples of inadequate implementation of the processes were observed and the inspection record indicated that several issues were self-revealed or identified by external organizations. Licensee performance with operating experience, self assessments, audits and maintaining a safety conscious work environment was effective.

## REPORT DETAILS

### 4. OTHER ACTIVITIES

#### 4OA2 Problem Identification and Resolution (71152B)

Completion of sections a. through d. constitutes 1 biennial sample of problem identification and resolution as defined by Inspection Procedure 71152.

##### a. Assessment of the CAP Effectiveness

###### (1) Inspection Scope

The inspectors reviewed the licensee's CA program implementing procedures and attended CA program meetings to assess the implementation of the CA program by site personnel. The inspectors reviewed risk significant issues in the licensee's CA program that overlap the last NRC PI&R inspection completed in August 2006. The selection of issues ensured an adequate review of issues across NRC cornerstones. The inspectors reviewed condition reports (CRs) generated as a result of daily plant activities. In addition, the inspectors reviewed CRs that included a selection of completed investigations from the licensee's various investigation methods, which included root cause, in depth apparent cause, apparent cause, and trending performance investigations. The inspectors evaluated the timeliness and effectiveness of corrective actions for selected condition reports, completed investigations, and NRC findings, including non-cited violations (NCVs). The inspectors also reviewed issues identified through NRC generic communications, department self assessments, licensee audits, operating experience reports, and NRC documented findings.

The inspectors performed a five year review of diesel generator issues documented in corrective action documents to assess the licensee staff's efforts in monitoring for any system degradation due to aging. The inspectors performed partial system walkdowns of the diesels.

Inspectors reviewed the classification of condition reports for resolution to determine if the licensee appropriately determined the investigation methods. Inspectors also attended Initial Screening Committee and Management Screening Committee meetings to observe the review of CRs for classification.

###### (2) Assessment – Effectiveness of Problem Identification

Based on the information reviewed, the inspectors concluded that the threshold for initiating condition reports was low and well below the plant procedural requirements. Nevertheless, licensee expectations for CR initiation were not being consistently met as evidenced by CRs prompted by NRC inspectors. In addition, due to errors in coding of the condition reports, the inspectors could not determine how many condition reports were the result of event-driven issues.

The inspectors concluded that the program was effective at identifying issues. However, a review of the NRC findings identified in the last two years which were self revealing or identified by external organizations illustrated that improvement could be made.

For example, the resident's identified that the licensee failed to perform adequate maintenance on the turbine building sump overflow check valve.

## **OBSERVATIONS**

During the inspection, the team requested data on the number of condition reports that were coded as event-driven, external driven and self identified. The Cook process describes event-driven as those that are self evident and require no active or deliberate observation by the licensee. Self-identified conditions are those that are discovered through licensee programs or those that are found through deliberate observation. External-driven conditions are those found by an outside agency, e.g. the NRC. The inspectors noted that the number of event-driven condition reports was abnormally low. For example, in the first quarter of 2007, only 11 CRs out of 1553 were event-driven. The inspectors reviewed CRs in the review process and identified multiple examples where a CR was incorrectly classified as self identified. For example, a CR where a worker had snapped a bolt head had been classified as self identified.

No findings of significance were identified.

### **(3) Assessment – Effectiveness of Prioritization and Evaluation of Issues**

During Initial Screening Committee and Management Screening Committee meetings observed by the inspectors, all CRs were assigned appropriate prioritization and evaluation levels.

The inspectors determined that the evaluations in root cause reports and apparent cause reports that were reviewed were adequate. The corrective actions addressed the identified problems and the timeliness of corrective actions was appropriate to the safety significance. However, the inspectors noted some minor weaknesses in evaluations and identification of corrective actions.

## **OBSERVATIONS**

During review of the licensee's condition reports related to NCVs 05000315/2006-004-01 and 02, the inspectors noted that the licensee had not fully considered the impact of a seiche on equipment in the service water screen house. The NCVs addressed, in part, protection of safety-related equipment from the effects of a seiche up to an elevation of 595 feet above sea level. Although the licensee relocated vulnerable equipment to above the 595 level, the licensee did not consider the potential for spray or sloshing to affect equipment. In addition, the off-normal procedure in use by the facility did not accurately describe the means of plant notification if conditions were favorable for a seiche. The licensee documented these issues in CRs 00836575 and 00836451, respectively.

The inspectors reviewed CR 06090039 that addressed a significant condition adverse to quality involving the drop of a bulkhead section in containment. The corrective actions in the evaluation were too narrowly defined. As a corrective action, the licensee revised procedures to require use of a load cell in instance where a load could bind. The inspectors concluded that this corrective action was too narrowly focused because they did not address other conditions which could overload rigging. However, subsequent to

the root cause, the licensee revised the governing procedures to use a load cell for all lifts in excess of four tons.

The inspectors reviewed Action Request (AR) 00804579 which evaluated a condition prohibited by Technical Specifications (TS). During performance of diesel generator load testing, commonly known as Loss of Offsite Power/Loss of Coolant Accident testing, the licensee rendered containment isolation inoperable with containment purge in operation and fuel moves in progress. The violation occurred when the licensee took the solid state protection system switch to the test position. In the in-depth apparent cause evaluation, the licensee recognized several failed barriers that resulted in the technical specification violation. However, the licensee did not recognize weaknesses in the infrequently performed test and evolution briefs. Specifically, the brief did not address the impact of the testing on Technical Specifications. In addition, the operating experience included in the brief was not adequate in that it did not discuss an earlier instance when power was removed from the solid state protection system switch.

During review of AR 00806546, which addressed the blow out of packing on an instrument isolation valve when mechanics attempted to adjust the packing, the inspectors noted that the licensee completed the root cause prior to evaluation of the material condition of the valve. Since the valve could not be fully evaluated for several months, the inspectors concluded that completion of the non-material portion of the root cause prior to completion of valve diagnostics was reasonable. However, once the licensee completed the material evaluation, the information was not re-evaluated for additional insights regarding the failure of the valve. When the inspectors discussed the condition with Boric Acid Control program owner, the program owner stated that when similar valves had indications of a packing leak, the valves would be scheduled for replacement during the next outage. In addition, operations had informally agreed to prohibit packing adjustments on similar valves. The inspectors concluded that the informal practices lacked sufficient rigor to ensure future implementation of these actions. The licensee initiated AR 00837146 to modify plant procedures to document these practices.

#### (4) Assessment – Effectiveness of Corrective Actions

The inspectors concluded that over the two year period encompassed by the inspection, the licensee implemented effective corrective actions. The inspectors identified no significant examples where problems recurred.

No findings of significance were identified.

#### b. Assessment of the Use of Operating Experience

##### (1) Inspection Scope

The inspectors reviewed a sample of operating experience (OE) issues for applicability to D.C. Cook and the associated actions American Electric Power implemented to address the potential issues. The inspectors selected the samples from NRC Generic Communications, industry OE sources, reports made pursuant to 10 CFR 21, and noteworthy issues from other reactor sites. The inspectors reviewed the method in which OE was communicated throughout the station, and where appropriate, verified that applicable issues were entered into the CA program. In the review of associated

evaluations, the inspectors evaluated whether the problems associated with each issue were appropriately considered for resolution in accordance with the CAP process.

(2) Assessment

The inspectors observed that the licensee transmitted industry OE daily to each department OE Coordinator. Regulatory Affairs staff reviewed NRC Information Notices, Generic NRC correspondence, and Westinghouse advisories and bulletins for applicability. The inspectors identified no examples where the licensee failed to take appropriate action based on the OE. The inspectors observed a daily screening meeting and concluded that the licensee adequately screened OE.

No findings of significance were identified.

c. Assessment of Self-Assessments and Audits

(1) Inspection Scope

Inspectors reviewed samples of the governing procedures, schedules, plans, reports, and resulting CRs for licensee self assessments and quality assurance audits. A sample of corrective actions generated for issues was also reviewed.

(2) Assessment

The inspectors reviewed the self-assessment of the CAP performed by the Performance Assurance organization. The inspectors determined that the assessment results were similar to the observations of the inspectors. The inspectors also reviewed other self-assessments as well as Excellence Plan Health Indices listed in the references. The inspectors identified no areas of concern.

No findings of significance were identified.

d. Assessment of Safety Conscious Work Environment

(1) Inspection Scope

The inspectors interviewed approximately 25 plant workers, across all major work groups and all levels of responsibility to assess the safety-conscious work environment at the station. The inspectors conducted the interviews using the guidance provided in Appendix 1 of NRC Inspection Procedure 71152, "Suggested Questions for Use in Discussions with Licensee Individuals Concerning PI&R Issues." The licensee recently promulgated a new policy that would discipline employees that were injured as a result of at risk behavior. Therefore, the inspectors specifically asked questions about the employee's willingness to raise issues associated with industrial safety. Employees remained willing to report safety issues.

In addition to the interviews, the inspectors reviewed documents and observed activities to determine if plant employees might be reluctant to raise safety concerns. As part of the inspection, the inspectors reviewed the latest safety culture self-assessment. This report had been previously reviewed in IR 05000315/2008502, 05000316/2008502. The results of the self-assessment were consistent with the inspector's observations. The

inspectors also reviewed the station procedures related to the Employee Concerns Program, and discussed implementation of the program with the program manager.

(2) Assessment

The inspectors concluded that employees report issues at a low level. Many employees expressed concern that at-risk behavior had not been sufficiently defined. Workers indicated that they felt comfortable identifying issues and discussing concerns with supervision without fear of reprisal.

The inspectors observed that personnel interviewed were aware of the different avenues through which they could express concerns including the CAP, informing their supervision, contacting the Employee Concerns Program coordinator, or contacting the NRC. The majority of workers interviewed preferred utilizing the CAP as their first avenue to raise both nuclear and industrial safety concerns.

No findings of significance were identified.

e. Other Activities

(Closed) Licensee Event Report (LER) 05000315/2008-003-00, "Failure to Comply with Technical Specification Limiting Condition for Operation 3.0.6"

On March 5, 2008, while in the process of preparing to remove the Unit 1 East Essential Service Water (ESW) Pump from service for scheduled maintenance, the Control Room Senior Reactor Operators questioned the need for a Safety Function Determination and documentation as required by procedures and Technical Specifications (TS). This action delayed the pump maintenance based on the potential consequences that would have existed as a result of having the Unit 2 East Motor Driven Auxiliary Feedwater (AFW) Pump Room Cooler out of service in conjunction with the Unit 1 East ESW Pump. More specifically, removal of U1 East ESW Pump from service would have rendered redundant trains of AFW inoperable since the Unit 1 ESW East Train is cross tied with the Unit 2 ESW West train. With the system configured as it was, with cross ties open between units, the unit 2 west train would have been required to be declared inoperable.

Upon the suspension of U1 maintenance activities, prior to removing U1 East ESW pump from service, the licensee identified that, as noted in the licensee's evaluation, a safety function determination is required any time an ESW system is taken out of service, unless all TS Conditions and Required Actions for the systems supported by the ESW train are entered. Contrary to procedural requirements, which require formal documentation, undocumented reviews were performed in this case and in approximately 115 other cases, to verify that a loss of safety function would not occur as a result of planned maintenance. In all cases, the licensee was able to demonstrate that the safety function was retained.

The Licensee entered this issue into their CAP, and as a result has implemented 6 corrective actions to restore their facility within compliance when a safety function determination becomes necessary. These actions include: implementing training to address knowledge and proficiency issues related to this event; incorporating of the Safety Function Determination Program into Operations Head Procedure; briefing by Shift Management to all operations crews on the rules of usage for TS LCO 3.0.6 and

the requirements of the safety function determination procedure; clarifying PMP-7030-SFD-001 to reinforce its use a guide for evaluating upcoming maintenance activities for potential loss of safety function; benchmarking of safety function determination Procedure by Operations to ensure administrative burden is minimized in the control room for pre-planned maintenance activities; and ensuring that power log standard entries are changed to meet the requirements of PMP-7030-SFD-001 and TS LCO 3.0.6 when applicable.

This failure to comply with TS LCO 3.0.6 constitutes a violation of minor significance and is not subject to enforcement action in accordance with Section IV of the NRC's enforcement policy because the issue was administrative in nature and had no associated loss in safety function.

This LER is closed.

ATTACHMENT: SUPPLEMENTAL INFORMATION

**SUPPLEMENTAL INFORMATION**

**KEY POINTS OF CONTACT**

Licensee

R. Crane, Learning Organization Manager  
J. Gebbie, Plant Manager  
J. Hammond, Corrective Action Specialist  
C. Hutchinson, Emergency Preparedness manager  
C. Lane, Engineering programs Manager  
R. Niedzielski, Regulatory Affairs Specialist  
P. Schoepf, Regulatory Compliance Supervisor  
L. Weber, Site Vice President

**LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

Closed

05000215/2008-003-00	LER	Failure to Comply with Technical Specification Limiting Condition for Operation 3.0.6 (4OA2)
----------------------	-----	--

## LIST OF DOCUMENTS REVIEWED

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

### 40A2 Problem Identification and Resolution (71152B)

- 1-E-N-ELCP-4KV-001-LOAD, Unit 1 Equipment Loading Analysis, Revision 0
- 1-E-N-ELCP-4KV-001-Model, Unit1 4kV/600 V Load Control Model Calculation, Revision 1
- 1-OHP-4030-132-217A, DG1CD Load Sequencing & ESF Testing, Revision 17
- 2-EHP-4030-295-249, Containment Divider Barrier Seal Surveillance Test, Revision 3
- 2IHP-4030-202-027, DT/TAVG Protection Set 3 Channel Operational Test And Calibration, Revision 3
- 2-OHP-4021,008-002, Placing Emergency Core Cooling System in Standby Readiness, Revision 21
- 2-OHP-4022-001-009, Seiche, Revision 3
- 12-MHP-4030-001-002, Visual Inspection of Grinnell Snubbers, Revision 8
- 12-THP-6020-CHM-307, Emergency Diesel Fuel Oil Supplement Form, Revision 11, April 15, 2008
- 2007 Employee Concerns Program Assessment, November 2007
- AR08227037, Station Use of Action Request Event Descriptions, August 14, 2008
- AR000115929, Lower Than Expected Voltage for T21A While Synchronizing DG2AB, September 24, 2005
- AR00800186, X-Cutting Issue Regarding Timeliness of Repair of 12-DR-129, July 3, 2006
- AR00123087, Engineering Gave the Operation Department Incorrect, march 6, 2006
- AR00124101, ABDG Load Rejection testing Failed Acceptance Criteria, March 26, 2006
- AR00097293, Crankcase Vacuum Never Came Within Its Band During CD Emergency Diesel Operability Test, September 1, 2004
- AR00100347, DG2CD was Manually Tripped Due to a Phase Unbalance, October 26, 2004
- AR00101534, Add Flapper Valve to Preventative Maintenance Program, November 16, 2004
- AR00103573, U2 AB Diesel Outside Time Limit During Slow Start, January 6, 2005
- AR00107383, Manually Tripped AB EDG Due to a Significant Fuel Oil leak, March 31, 2005
- AR00107802, Oil Leaking from Lower O Rings of Cylinder Liner, April 6, 2005
- AR00108343, Local Operating Data Outside the Expected Range During 1AB EDG Surveillance, April 14, 2005
- AR00109348, Fuel Oil Leak from Fuel Injection Pump Mounting Fasteners and Tubing Connections, May 7, 2005
- AR00111501, Shutdown DG2AB, U2 AB EDG during PMT Run Due to Leaking Fuel Injector, June 22, 2005
- AR00112166, Time to Rated Speed for CD EDG Exceeds the Allowable Range, July 7, 2005
- AR00113313, Apparent Discrepancies Regarding the Flood Protection System, July 29, 2005
- AR00114269, Leaking Pressurizer PORV Has Incorrect TS Guidance, August 18, 2005
- AR00116540, Perform Zone Code for Improved Tech Specs per ICP01069, October 10, 2007
- AR00116541, Perform Zone Code for Improved Tech Specs per ICP01098, October 4, 2007
- AR00116542, Perform Zone code for Improved Tech Specs per ICP01073, October 7, 2005
- AR00119430, DG1AB slow Start was Slightly Slower than Procedural Limit, December 13, 2005

- AR00124109, Stop Work Order in Response to Dropped Load During Unit 2 Vertical Bulkhead Section Removal, March 27, 2006
- AR001260525, Current Surveillance Requirements for containment Cleanliness, May 2, 2006
- AR00126115, Additional ITS Project Documents Need to Be Forwarded to NDM, May 4, 2006
- AR00126853, Safety System Unavailability Performance Indicators are Being Replaced by the Mitigating Systems Performance Index, May 22, 2006
- AR00127599, U1 AB Emergency Diesel Generator Start Air Compressor #1 Oil is Cloudy, June 6, 2006
- AR00800186, X-cutting Issue regarding Timeliness of Repair to 12-DR-129, July 3, 2006
- AR00801594, Found Incorrect Mechanical Governor Speed Knob Setting for 1AB EDG, August 16, 2006
- AR00803738, Apparent, Historical Failure to Perform Required Extent of Condition Evaluations for Conditions Adverse to Quality, October 4, 2006
- AR00803986, Steam Generator Tube Plugging Error During the U1C18 Outage, October 11, 2006
- AR00804579, Loss of Train B Containment Vent isolation During Refueling, November 24, 2006
- AR00805533, Loss of Frequency/Voltage Indication During Slow Start, November 17, 2006
- AR00813950, NRC Identified Concerns with the Evaluation of EDG Failures, May 24, 2007
- AR00817575, Contaminated Equipment Storage Box Loaded Beyond Working Load Limit, August 21, 2007
- AR00818063, Casting Inclusions in U2 LP Turbine Lifting Beam, August 31, 2007
- AR00820572, U2 Divider Barrier Seal Fit & Rust Conditions, October 13, 2007
- AR00828057, Inadequate Lift Plan Provided to the Lifting and Rigging Program Subject Matter Expert, March 18, 2008
- AR00834575, Worker Sustained Injury Which Required Offsite Medical Attention, July 8, 2008
- AR00834925, Adverse Trend of Unqualified Personnel Assigned to Self-Assessments, July 8, 2008
- AR00835517, Overload While Attempting to Move Fuel Assembly Z02, July 23, 2008
- AR08198036, No ARE was found Documenting the Review of NRC IN 07-23, July 16, 2008
- AR 08227045, Boric Acid around Packing Gland on 2-NPS-122-V1, August 15<sup>th</sup>, 2008
- AR00121597, 1-DGCD-SPD, IND-FB Did Not Come Up to 514rpm, February 1, 2006
- AR810402-15, 1AB EDG Fuel Injection pump, 2R DVH Crack Summary, undated
- AR00813713, Meter Indicates -2 Volts Less Than Normal When DG1CD is Sync to Grid, May 20, 2007
- AR00067618, Overload Trip Signal During Unit 1 Core Reload, While Attempting to Remove Fuel, May 24, 2002
- AR00104435, Improper Voltage While Synchronizing the Unit 1 ABEDG, January 25, 2005
- AR00108474, Leaks Coming from Jacket Water 1 Rear on CD EDG During 18 Month Post Maintenance Run, April 14, 2005
- AR00109347, Oil Leaking from Baseplate of 1AB EDG Woodward Governor, May 7, 2005
- AR00806485, Unit 1 AB EDG Generator Slow Start Was Too Slow, December 12, 2006
- AR00807644, 1 AB EDG: Prolonged Start in Slow Start Mode, January 16, 2007
- AR00812790, 1CD EDG Start Time Outside of Procedure Allowance, April 26, 2007
- AR00098873, Unexpected Response When Transferring 2AB Diesel Voltage Regulator, October 4, 2004
- AR00099267, 2OME150AB Has a Grounded Outboard Generator Bearing, October 8, 2004
- AR00100124, Connective rod Bearing in Unit 2 SGCD is Out of Specification Requirements, October 21, 2004
- AR00105932, Slow Speed Start of 2AB EDG was Outside Range, March 2, 2005
- AR00111998, 2R Petcock had Excessive Oil Leakage During Blowdown, July 4, 2005

- AR00125304, Unit 2 CD EDG Failed to Start on Receiving Start Signal From Control Room, April 18, 2006
- AR00125378, While Performing R024623 to test and Replace 2SV104E, April 19, 2006
- AR00125843, During Performance of 02OHP4021008002, CCP Suction, April 29, 2006
- AR00814880, Unconservative Assumption Found in Units 1 & 2 RVCH Calculation, June 18, 2007
- AR00127374, Failure to Comply with Technical Specification SR 3.6.1.1, May 31, 2006
- AR00110809, U2 CD EDG 3R Petcock Leaked 1 Tablespoon of Oil, June 8, 2005
- AR00832509, Safety FIP for 4<sup>th</sup> Quartile Industrial Safety Performance, June 2, 2008
- AR00117713, 2 – 3 Ounce Oil discharge during CD Diesel Generator Operability Test, November 1, 2005
- AR00822841, U2 CD Diesel Generator Failed to Start, December 4, 2007
- AR00810402, Found Fuel Oil Leak at on Unit 1 AB EDG, September 7, 2007
- AR00125022, Evaluate T.S> SR 3,8.1.11 Acceptance Criteria, April 12, 2006
- AR00107800, Oil Leak Discovered During final Run Inspection of 18 Month Surv., April 6, 2005
- AR00108185, Small Leaks on CD EDG During 18 Month Post Maintenance Run, April 14, 2005
- AR00122455, 1OHP4030114030 and 2OHP4030214030 Data Sheet 15 Have Insufficient Detail to Meet TS 3.4.8.2 and 3.9.5.2, February 21, 2006
- AR00813597, Start Time Long for 1AB EDG Slow Speed Start, May 17, 2007
- AR00803578, Divider Barrier Seal Fasteners Missing, October 3, 2006
- AR00122576, Potential Errors in the OTDT Equation, February 23, 2006
- AR00110168, 2AB EDG Slow Speed Start Longer than Required, May 25, 2005
- AR08240052, CR-CNAQ – Condition NOT Adverse to Quality, August 27, 2008
- AR00822654, DG CD Started Fast on Slow Speed Start, November 28, 2007
- AR00104135, System DC2eCD Slow Speed Start was More Than 30 Seconds, January 18, 2005
- AR00125778, U2 AB EDG Had to Be Tripped During Start, April 28, 2006
- AR00117890, Contrary to Section 10.6 of the UFSAR, November 4, 2005
- AR00830395, U1 CD EDG Failed Load Rejection Testing, April 21, 2008
- AR00817726, DG1AB Slow Speed Start Time of 43.77 Seconds, August 23, 2007
- AR00101698, CD EDG Reached Rated Speed in 45 Seconds During Slow Speed Start, November 23, 2004
- AR00126299, Technical Requirements Manual Change Made Without 50.59 Evaluation, May 9, 2006
- AR00802140, Jib Crane Base Does Not Have 85 Percent Bearing, June 30, 2006
- AR00806546, 2-NPS-121-II Packing Blew Out of Valve, December 14, 2006
- AR00814627, DG1AB Took 40.69 Seconds for Slow Start, June 12, 2007
- AR00099802, DG2AB Was Slow to Reach 514rpm During a Slow Speed Start, October 16, 2004
- AR00801896, AB EDG Speed of 514 rpm Not Obtained During Slow Start, August 23, 2006
- AR00101078, 2AB EDG: Engine was Slow to Reach 514rpm During a Slow Speed Start, November 8, 2004
- AR00821181, CESA Boxes 271, 272 Weight Capacity Inadequate for Tensioner Weight, October 23, 2007
- AR00804911, NRC Information Notice 2006-22, New Ultra-Low-Sulfur Diesel Fuel Oil Could Adversely Impact Diesel Engine Performance, October 31, 2006
- AR00804617, NRC Regulatory Issue Summary 2006-21, Improving Response Capabilities Through the Use of an Incident Response Electronic Library, October 25, 2006

- AR00804850, NRC Information Notice 2006-21, Operating Experience Regarding Entrapment of Air Into Emergency Core Cooling Containment Spray Systems, October 30, 2006
- AR00802090, NRC IN 2006-15, Vibration-Induced Degradation and Failure of Safety-Related Valves, August 29, 2006
- AR00802569, NRC Information Notice 2006-14, Potentially Defective External lead-Wire Connections in Barton Pressure Transmitters, September 13, 2006
- AR00800446, NRC Information Notice 2006-13, Ground Water Contamination, July 12, 2006
- AR00804849, NRC Information Notice 2006-14, Supplement 1, Potentially Defective External Lead-Wire connections in Barton Pressure Transmitters, October 30, 2006
- AR00800444, NRC Information Notice 2006-12, Exercising Due Diligence
- AR00802526, NRC Regulatory Issue Summary 2006-11, Requesting quality Assurance Program Approval Renewals Online by electronic Information Exchange, September 12, 2006
- AR00800442, NRC Regulatory Issue Summary 2006-10, Regulatory Expectations, July 12, 2006
- AR00834276, DG1CD Slow Start Time Too Fast, July 2, 2008
- AR00811860, DG1CD Slow Start Time, April 4, 2007
- AR00824292, DG2CD, January 8, 2007
- AR00117890, Performed Assigned Action, June 12, 2006
- AR00101534, , November 16, 2004
- AR08227033, Evaluate SEICHE AOP Procedure, August 14, 2008
- AR00821098, Divider Barrier Seal Bolting, October 22, 2007
- AR00125960, 2CD EDG Declared Operable on April 21, May 1, 2006
- AR00087648, During Inspection of 12DR129, February 17, 2004
- AR00830563, Oil from Petcocks During 2AB DG Roll, April 23, 2008
- AR00808438, DG1CD Slow Start, January 31, 2007
- AR00810402, Fuel Oil Leak on Unit 1 AB EDG, May 31, 2007
- AR00804078, Ice Condenser 40 Month Surveillance, October 13, 2006
- AR00801312, NRC Regulatory Issue Summary 1006-13, August 8, 2006
- AR00801310, NRC Information Notice 2006-17, August 8, 2006
- AR00801316, NRC Regulatory Issue Summary 2006-12, August 8, 2006
- AR00802041, NRC Information Notice 2006-18, August 28, 2006
- AR00802042, NRC Information Notice 2006-16, August 28, 2006
- AR00802038, NRC Regulatory Issue Summary 2006-15, August 28, 2006
- AR 00806381, Self-Assessment of the Corrective Actions Program, December 8, 2006
- AR 00804911 NRC Information Notice 2006-22, New Ultra Low Sulfur Diesel, October 31, 2006
- AR 00805764, Mid-Cycle Assessment, November 22, 2006
- AR 00806749, Rigging Improperly Performed, December 19, 2006
- AR 00817140, Complete Loss of Suction to Fire Pump House, August, 12, 2007
- AR 00817197, Deprived All Fire Water Pumps of Suction, August 13, 2007
- AR 00825805, Appendix R Compliance for Train B 4kV Room Fire, February 31, 2008
- AR 00825724, PO and Dedication Plan Deficiencies, February 4, 2008
- AR 00826317, Re-open Root Cause to Evaluate Extent of Condition, February 14, 2008
- AR 00829029, Contamination of Unit 2 Condensate and Steam Generators Required Unplanned Power Reduction, April 3, 2008
- AR 00827745, Potential TS LCO 3.0.6 non-compliance, August 8 2006
- AR 00834010, NRC Commitments 8422 and 8427 Are Not Met, June 24, 2008
- AR 00820622, CR 00827485 Approved But Incomplete, July 24, 2008
- AR 00828144, Evaluation for AR 00825724 Was Not Adequate, March 19, 2008
- AR 00834102, Inadequate Answer to AR 828144, June 24, 2008
- AR00114068, During Job Order JO 02309012 Activity 02, August 16, 2005

- AR 00115804, Tracking CR for Effectiveness Review of CR 03032004
- AR 08178044, Technical Support Center Habitability, June 27, 2008
- AR 08211021, Trend Program Needs Further Development, July 7, 2008
- AR 08212049, Reason Code A2d1 exceeded Upper Limit Controls, July 30, 2008
- AR 08232013, West Diesel Fire Pump Fuel Oil Tank, August 19, 2008
- AR 08232058, Procedure Use and Adherence Issues, Aug 19, 2008
- AR00081867, CR 9929555 is a Backlog, August 22, 2003
- AR 00111830, Effectiveness Review for Degraded Essential Service Water Pump Bowl Bearings, June 28, 2005
- AR 06032055, Adverse Trend: Surveillance Program Issues
- AR 00807835, Effectiveness Review for Root Cause Evaluation: Reactor Coolant System Packing Leak December 2006, January 24, 2007
- AR 00833687, TSC Ventilation System Failure requires Further Resolution, June, 17, 2008
- AR 08178044, TSC Habitability, June 26, 2008
- AR 00834186, TSC Habitability, June 26, 2008
- AR 00834096, Dampers 12-HV-TSC-SD-6,7 Did Not Position Correctly, June 27, 2008
- AR 08211020, Engineering Processes Failed to Maintain TSC Ventilation, July 29, 2008
- AT00802522, NRC Regulatory Issue Summary 2006-17, NRC Position of Requirements of 10 CFR 50.36, September 12, 2006
- Cook Nuclear Plant Safety Process for Total Accountability – Manager
- Cook Nuclear Plant Safety Process for Total Accountability – Supervisor
- Cook Nuclear Plant Safety Process for Total Accountability – Employee
- Corrective Action Health Index, May 2008
- Cook Nuclear Excellence Plan Indicator, May 2008
- CR00829943, Snubber Piston Setting Outside Acceptance Criteria, April 16, 2008
- CR00830022, Snubber Piston Setting Outside Acceptance Criteria, April 16, 2008
- CR00803160, Snubber 1-GRC-S564 outside piston setting accept. Criteria, September 25, 2006
- CR00803124, Snubber 1-GRC-S596 outside piston setting accept. Criteria, September 22, 2006
- CR00829944, Snubber piston outside acceptance criteria, April 16, 2008
- CR00800841, OE22986 TDFWP shutdown due to high outboard bearing temps, July 25, 2006
- CR00807195, OE23860 Aux Feed Pumps not aligned for Auto Operation, January 5, 2007
- CR00807723, OE24022 A semi solid contaminate found in snubber fluid, January 18, 2007
- CR00815951, OE24144 Failures Experienced with new Cutler Hammer AR880, July 11, 2007
- CR00816001, OE25015 10CFR21 Modifications Were not Inspected as Required, July 12, 2007
- CR00817399, Westinghouse TB-07-04 (DB-50 Breakers), August 16 2007
- Event Notification 44324, Procedure Change Initiated to Support TSC Habitability Dose Calculation, June 27, 2008
- EC-0000048720, Install Fire Wrap in Unit 1 to train "A" 250 Volt DC Conduit 8353G-1
- EC-0000048721, Install Fire Wrap in Unit 2 to train "A" 250 Volt DC Conduit 8353G-2
- Fire Pre-Plans Volume 11, Revision 11
- IEEE Standard Criteria for Class 1E Power Systems for Nuclear Power Generating Stations, Approved December 5, 1991
- IPTE Briefing Guide for EDG Load Sequence Testing, 2-OHP-4030-232-217A and 2-OHP-4030-232-217B
- LER 05000315/2008-003-00, Failure to Comply with Technical Specification Limiting Condition for Operation 3.0.6, May 12 2008
- LER 05000315/2008-002-00, 250 Volt DC Cable Separation Criteria for 10 CFR 50 Appendix R Not Met, April 1, 2008

- MD-12-SD-001-S, Impact of Seiche on EDGs with TRS Flap Valve Failed, Revision 0
- PMP-2080-EPP-100, Emergency Response, Revision 13, July 8<sup>th</sup>, 2008
- PMP-2080-EPP-101, Basis for Emergency Action Levels, Revision 6
- PMP-2080-EPP-101, Emergency Classification, Revision 12
- PMP-7030-CAP-001, Action Request Initiation, Revision 021
- PMP-7030-CAP-001, Action Request Initiation, Revision 19
- PMP-7030-CAP-002, Condition Evaluation, Action and Closure, Revision 11
- PMP-7030-MOP-001, Corrective Action Program Management and Oversight Process, Revision 002
- PMP-7030-MOP-001, Corrective Action Program Management Oversight Processes, Revision 2, May 29, 2008
- PMP-7030-SFD-001, Safety Function Determination Program, Revision 1
- PMP-7030-OE-001, Operating Experience Program, Revision 13
- PMP-2010-PRC-002, Revision 25, June 26, 2008
- RCE CR00829848, Root Cause Analysis of Support 1-2-GRH-R508 Removal & Waterway Interference and Assorted Documents, Book 1 of 1, PI&R 2008
- RQ-C-3033, Safety Function Determination Program, Revision 0
- RQ-C-3340, Period 3340 LOR Operations Review, Revision 1
- RT00022225-04, 12-DR-129, Inspect for Functionality/Corrosion/Degradation
- Safety Process for Total Accountability – Employee
- Safety Process for Total Accountability – Manager
- Safety Process for Total Accountability – Supervisor
- WO01260002, Remove/Clean/Inspect TRS Emergency Overflow Sump Cover, September 12, 2002
- WO02309012, Investigate and Repair Broken Disc, July 20, 2005
- WO04048044, Investigate/Repair Valve, February 18, 2004
- WO 55292558-01, Surveillance Inspection of Unit 1 Reactor Coolant System Grinnell Snubbers, August 7, 2007
- WO 55241741-01, Surveillance inspection of Reactor Coolant Snubbers, December 10, 2005

## LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
AFW	Auxiliary Feedwater
AR	Action Request
CA	Corrective Action
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CR	Condition Report
DRS	Division of Reactor Safety
ESW	Essential Service Water
IR	Inspection Report
LCO	Limiting Condition for Operations
LER	Licensee Event Report
NRC	U.S. Nuclear Regulatory Commission
NCV	Non-Cited Violation
OE	Operating Experience
PARS	Public Available Records
PI&R	Problem Identification and Resolution
TS	Technical Specification