

June 11, 2004

EA-04-006

Mr. M. Nazar  
Senior Vice President and  
Chief Nuclear Officer  
Nuclear Generation Group  
American Electric Power Company  
500 Circle Drive  
Buchanan, MI 49107

SUBJECT: D. C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2  
NRC SUPPLEMENTAL INSPECTION REPORT NO. 05000315/2004008(DRS);  
05000316/2004008(DRS)

Dear Mr. Nazar:

On May 20, 2004, the U.S. Nuclear Regulatory Commission (NRC) completed a supplemental inspection at your D. C. Cook Nuclear Power Plant, Units 1 and 2. The enclosed report documents the inspection results which were discussed on May 20, 2004, with Mr. Jensen and other members of your staff.

The NRC performed this supplemental inspection consistent with the NRC Action Matrix due to a White performance issue in the Public Radiation Safety Cornerstone. Specifically, on March 12, 2004, the NRC issued its Final Significance Determination and a Notice of Violation (NRC Inspection Report 05000315/2004005(DRS); 05000316/2004005(DRS)) for a White finding that involved a package of radioactive waste that was shipped from the D. C. Cook facility to a processor in Tennessee that failed to meet Department of Transportation package surface radiation level limits.

This supplemental inspection utilized NRC inspection procedure 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area," and was conducted to provide assurance that: (1) the root and contributing causes of the White performance issue were understood; (2) the extent of condition and extent of cause were identified; and (3) your corrective actions were sufficient to address the root causes and contributing causes, and to prevent recurrence.

The inspection was an examination of activities conducted under your license as they relate to safety and to compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection focused on your staff's evaluation of the White performance issue and consisted of a selective review of procedures, documents and representative records, observation of activities, and interviews of personnel.

Based on the results of this inspection, no findings or significant weaknesses associated with your staff's evaluation of the performance issue were identified. The inspector determined that your expanded apparent cause evaluation for the White finding was conducted using systematic techniques and adequately identified the primary and contributory causes for the specific performance issue. We also concluded that your corrective actions were adequate to address the causes that were identified in your evaluation so as to prevent recurrence. However, our inspection disclosed that your evaluation did not examine the potential for programmatic causes or for higher level problems with processes or systems that are intended to identify problems at an early stage. In particular, our inspector identified that your internal oversight mechanisms and your operating experience process all missed prior opportunities to identify and correct deficiencies with your radioactive material/radwaste package preparation and survey program before more significant problems arose.

Notwithstanding the deficiencies in your evaluation of this performance issue, given your overall acceptable performance in addressing this White finding, consistent with NRC Manual Chapter 0305, "Operating Reactor Assessment Program," this issue will be removed from consideration of future agency actions after four quarters has elapsed following our input of the original finding in the assessment program (i.e., the end of the fourth quarter 2004).

This also acknowledges receipt of your letter dated April 12, 2004, in reply to our March 12, 2004 letter which transmitted the NRC's Final Significance Determination and Notice of Violation for the White finding. We have no further questions regarding your reply.

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

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

Sincerely,

*/RA/*

Cynthia D. Pederson, Director  
Division of Reactor Safety

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

Enclosure: NRC Inspection Report 05000315/2004008(DRS);  
05000316/2004008(DRS)

See Attached Distribution

M. Nazar

-3-

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

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Notwithstanding the deficiencies in your evaluation of this performance issue, given your overall acceptable performance in addressing this White finding, consistent with NRC Manual Chapter 0305, "Operating Reactor Assessment Program," this issue will be removed from consideration of future agency actions after four quarters has elapsed following our input of the original finding in the assessment program (i.e., the end of the fourth quarter 2004).

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**/RA/**

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

Enclosure: NRC Inspection Report 05000315/2004008(DRS);  
05000316/2004008(DRS)

See Attached Distribution

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DATE	06/08/04	06/10/04	06/10/04	06/11/04

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

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 05000315/2004008(DRS); 05000316/2004008(DRS)

Licensee: American Electric Power Company

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

Location: 1 Cook Place  
Bridgman, MI 49106

Dates: May 10 through May 20, 2004

Inspector: W. Slawinski, Senior Radiation Specialist

Approved by: K. Riemer, Chief  
Plant Support Branch  
Division of Reactor Safety

Enclosure

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## SUMMARY OF FINDINGS

IR 05000315/2004008(DRS), 05000316/2004008(DRS); 05/10/2004-05/20/2004; D. C. Cook Nuclear Power Plant, Units 1 and 2; Supplemental Inspection - Public Radiation Safety Cornerstone.

This report covers a supplemental inspection performed by a regional-based inspector. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG 1649, "Reactor Oversight Process," Revision 3, dated July 2000.

### **Cornerstone: Public Radiation Safety**

The NRC performed this supplemental inspection to assess the licensee's evaluation of a White performance issue in the Public Radiation Safety Cornerstone. Specifically, the supplemental inspection assessed the adequacy of the licensee's evaluation, extent of condition/cause review and corrective actions associated with one White input in the public radiation safety cornerstone which resulted from a radioactive waste shipment problem in October 2003. Radiation Protection Inspection Report No. 05000315/2003016(DRS); 05000316/2003016(DRS) provided the details of the shipment problem. This problem was characterized as a White finding and was determined to involve a violation of Department of Transportation regulations, as documented in the NRC's final significance determination report (Inspection Report No. 05000315/2004005(DRS); 05000316/2004005(DRS)) dated March 12, 2004.

During this "Inspection for One or Two White Inputs in a Strategic Performance Area," performed in accordance with Inspection Procedure (IP) 95001, the inspector determined that the licensee performed an adequate evaluation of the specific performance issue and that comprehensive corrective actions were completed to address each of the specific causes. The licensee identified the specific causes as inadequate loading of the package and inadequate radiation surveys, precipitated by organizational/programmatic failures and deficiencies with worker skills/knowledge. Corrective actions included procurement of additional instrumentation, procedural changes, the development of a new procedure, expanded supervisory involvement/oversight in shipment activities and training for staff involved in shipments.

The inspector did not identify any findings or significant concerns associated with the licensee's evaluation of the specific performance issue; however, deficiencies with the scope of the licensee's overall evaluation and the depth of its extent of cause review were disclosed. In particular, the licensee's evaluation failed to explore the potential for programmatic causes or look for indications of higher level problems with those processes or systems intended to identify issues at an early stage such as the corrective action and oversight programs.

Given the licensee's progress in evaluating and correcting the problems with the radioactive material transportation program that resulted in the White finding, this public radiation safety cornerstone performance issue will not be held open beyond the normal four quarters provided in NRC Manual Chapter 0305, "Operating Reactor Assessment Program."



## REPORT DETAILS

### 01 INSPECTION SCOPE

This “Inspection for One or Two White Inputs in a Strategic Performance Area” [Inspection Procedure (IP) 95001] was conducted as a result of a White finding in the Public Radiation Safety Cornerstone which also involved a violation of 10 CFR 71.5 for failure to comply with Department of Transportation (DOT) regulations in 49 CFR 173.441. Specifically, the licensee failed to prepare a package of radioactive waste for shipment so that under conditions normally incident to transportation, the radiation level did not exceed DOT limits at any point on the external surface of the package upon its arrival at a vendor waste processing facility. The inspection objectives were to provide assurance that the root and contributing causes were understood for the White performance issue, to provide assurance that the extent of condition and extent of cause were adequately assessed, and to provide assurance that the corrective actions were sufficient to address the causes and to prevent recurrence.

The scope of this IP 95001 inspection consisted of an assessment of the licensee’s evaluation of the performance issue, a review of the licensee’s extent of condition/cause evaluation, and a review of the associated corrective actions. The inspector also independently reviewed aspects of the licensee’s internal oversight processes that were not sufficiently explored as part of the licensee’s evaluation of the performance issue.

### 02 EVALUATION OF INSPECTION REQUIREMENTS

#### 02.01 Problem Identification

- a. *Determine that the evaluation identifies who (i.e., licensee, self-revealing, or NRC), and under what conditions the issue was identified.*

The licensee’s evaluation correctly identified that the event was self-revealed. Specifically, receipt (incoming) radiation surveys performed by a waste processing vendor identified a small area on one of the two packages that the licensee shipped on a flat-bed truck that exceeded the DOT 200 millirem per hour package surface radiation level limit by 25 percent. The vendor notified the licensee on the day of discovery and the licensee then notified the NRC. The shipment was quarantined and the licensee dispatched its principal certified shipper to the vendor’s facility to investigate the problem that same day.

The licensee thoroughly investigated the shipment problem and as a result identified deficiencies with its package loading and survey practices. However, the licensee’s evaluation focused narrowly on the specific performance problem as it related to the preparation, packaging and surveying of the radioactive material shipment but failed to look broadly at programs and/or processes that are intended to identify potential problems at an earlier stage. In particular, the licensee’s evaluation of the performance issue failed to review its problem identification and oversight processes (e.g., audit, self-assessment, peer performance review and field observation programs) to determine whether they were sufficient to identify radioactive shipment program vulnerabilities

and/or potential precursors to shipment problems before more significant problems occurred.

- b. *Determine that the evaluation documents how long the issue existed, and prior opportunities for identification.*

The licensee's investigation was unable to definitively determine if the area of elevated radiation on the package existed prior to departure of the shipment from the D. C. Cook plant or if it emerged during transit of the shipment. The licensee's evaluation reasonably concluded that the contents of one of the waste bags loaded in the package likely settled during transit causing a discrete radioactive particle to migrate to the external surface of the bag. The licensee's evaluation determined that the waste bags were not properly loaded in the package to ensure compliance with the DOT radiation level limits. The licensee also concluded that the survey instruments its staff used to conduct the package surveys were not optimum for the application and contributed to an inadequate survey.

The licensee reviewed its condition report (CR) database for approximately the decade that preceded the shipment problem which disclosed a similar shipment incident in 1993. The 1993 incident involved a radioactive material shipment that arrived at another facility with dose rates that exceeded those measured by the licensee, in violation of DOT limits. The 1993 problem was attributed to use of improper instrumentation to conduct the package survey. Corrective actions for that problem focused on radiation survey instrument selection for "limited quantity" and "excepted quantity" shipments. The licensee's evaluation concluded that the corrective actions for the 1993 event were limited in scope because they failed to address survey instrumentation for all types of shipments and consequently was a missed opportunity to fully correct existing deficiencies with its shipment survey program. While the licensee's evaluation included a thorough review of its CR database, the licensee did not review its oversight activities to determine if other prior opportunities for problem identification existed.

The inspector reviewed records of the licensee's performance observation program (POP), a supervisory/peer review scorecard system, and also reviewed audit and field observation reports and determined that additional prior opportunities for problem identification were available. Specifically, a POP peer observation conducted in 2002 during the survey of a package in preparation for its shipment noted that a "hot" spot which exceeded limits prescribed for that type of shipment was found. However, the cause of that problem was not fully evaluated at the time. The inspector also determined that the licensee's Performance Assurance organization had numerous opportunities to observe radioactive material package preparations and surveys through its field observation and audit process (approximately 100 shipments annually) but only took advantage of two opportunities in the three years that preceded the White performance issue.

- c. *Determine that the evaluation documents the plant specific risk consequences (as applicable) and compliance concerns associated with the issue.*

A plant specific probabilistic risk assessment is not applicable to this radioactive material transportation finding. However, the licensee evaluated the radiation dose risk to the

public and the driver of the vehicle and concluded that the public health and safety was not compromised during the shipment. Given the location and small size of the spot of elevated radiation on the package, the physical characteristics of the package which limited an individual's accessibility to the spot and based on the lack of any prolonged stops while the transport vehicle was en route, it is unlikely that members of the public were unduly exposed to radiation.

## 02.02 Root Cause, Extent of Condition and Extent of Cause Evaluation

- a. *Determine that the problem was evaluated using a systematic method(s) to identify root cause(s) and contributing cause(s).*

The licensee did not conduct a root cause analysis of the performance issue but instead performed an expanded apparent cause evaluation (ACE) which was later supplemented with an extent of cause review. The ACE was performed rather than a root cause due to the limited complexity of the issue and the risk significance category (i.e., category-3) initially assigned to the problem by the licensee. The inspector, however, questioned the adequacy of the risk category which the licensee assigned to this incident as prescribed by its "Corrective Action Program Process Flow" procedure (PMP-7030-CAP-001) due to the potential public safety impact. The inspector determined that the licensee's procedure did not provide clear guidance for categorizing the risk of public radiation safety related issues and that the procedure guidance for occupational radiation safety issues was overly non-conservative for risk significant (category - 1) issues.

The inspector concluded that the licensee's evaluation was performed in a systematic manner which correctly and completely determined the causes and contributory factors for the specific performance issue despite the lack of a more formal root cause analysis. The licensee's evaluation team performed the analysis using an industry accepted methodology which employed the following techniques: records review, personnel interviews, and barrier analysis.

The licensee identified the specific causes as inadequate loading of the package and inadequate radiation surveys precipitated by organizational/programmatic failures and deficiencies with worker skills/knowledge. The licensee's evaluation found that radioactive material package preparation and survey procedures were deficient, communications between the various workers involved in the task were incomplete, survey instrumentation was not optimum for the application and complacency allowed the task to be completed without the proper questioning attitude.

The inspector determined that while no procedure governed the licensee's evaluation, the ACE was performed by adequately trained/qualified staff consistent with ACE training course methodologies and the licensee's ACE desk top guidelines.

- b. *Determine that the root cause evaluation was conducted to a level of detail commensurate with the significance of the problem.*

The licensee's ACE was conducted to a level of detail commensurate with the significance and complexity of the problem so as to identify the causes and contributors

to the specific performance issue. However, the inspector determined that the licensee's evaluation was narrowly focused on the specific problem and was not expanded to more broadly assess the adequacy of fundamental processes intended to identify problems at an early stage. Specifically, the licensee's ACE failed to examine the potential for programmatic causes or for higher level problems with its internal oversight processes. For example, the licensee's evaluation did not determine whether its problem identification and resolution processes were sufficient to identify potential precursors to the performance problem, whether precursors actually existed for this problem that were identified by these processes and, if applicable, whether these precursors were adequately addressed.

The inspector independently identified flaws with the licensee's oversight mechanisms (as described in Section 2.01(b) above) and with its internal and industry operating experience review processes (Section 2.02 (c) below) that resulted in missed opportunities to identify deficiencies with shipment preparations and surveys prior to the performance issue.

- c. *Determine that the root cause evaluation included a consideration of prior occurrences of the problem and knowledge of prior operating experience.*

The licensee's ACE included consideration of actual prior occurrences of radioactive shipment problems (as described in Section 2.01(b)) through an extensive review of its CR database. However, the licensee's ACE did not assess the adequacy of its industry operating experience (OE) process to determine whether the industry experienced similar problems that they failed to capture and/or assess properly. Specifically, the licensee failed to examine how external databases were used to track and resolve industry issues and if deficiencies existed with this process or with the licensee's specific actions for any relevant industry OEs.

The inspector independently reviewed industry OEs and identified several, including two issued approximately one year before the White performance issue, that described problems and identified causes that were very similar to those experienced by the licensee. The inspector found that although members of the licensee's staff reviewed these latter two OEs for applicability to their program, the licensee's process at that time did not ensure that OEs were properly tracked, assessed and resolved. Based on one individual's review of these OEs, no actions were deemed necessary. As a result, opportunities to address shipment packaging and survey deficiencies were again missed.

- d. *Determine that the root cause evaluation addresses the extent of condition and extent of cause of the problem.*

The licensee's evaluation adequately assessed the extent of condition of the performance problem and the degree that the actual condition existed in other plant processes or activities. The licensee thoroughly reviewed its CR database for similar issues or problems with hazardous material shipments and identified only one similar problem that dated back to 1993. Given the specific and limited nature of the performance issue, that review adequately bounded the extent of condition.

The licensee's extent of cause (EOC) review included those plant processes/activities that may have an impact on public dose, and assessed the extent to which the causes and contributors to the performance issue may affect these program areas. The licensee's EOC review focused on aspects of its radiological survey program including limited portions of the free (unconditional) release survey program, the hazardous waste shipment program and procedural controls and supervisory oversight for its chemistry (effluent) sample collection and analyses activities. However, while the processes/activities chosen for the EOC review were of reasonable scope, the review of the free release program was not of sufficient depth because it failed to assess the adequacy of the free release surveys and to determine if proper survey instrumentation is used.

### 02.03 Corrective Actions

- a. *Determine that appropriate corrective action(s) are specified for each root/contributing cause or that there is an evaluation that no actions are necessary.*

Comprehensive corrective actions were completed to address the identified causes and the contributors so as to prevent recurrence of the performance issue. These corrective actions included: (1) an assessment of existing radiation survey instrumentation used in the shipment program and the procurement of additional instruments; (2) detailed changes to those procedures which govern the shipping program to require load plans and to delineate the survey instrumentation that is to be used for specific shipment types; (3) the development of new procedures to address other vulnerabilities in the radioactive material shipment program; (4) expanded supervisory involvement/oversight in shipment preparation activities; and (5) training for station staff and the development of training lesson plans for contractors that may be involved in shipment preparations during outages.

- b. *Determine that the corrective actions have been prioritized with consideration of the risk significance and regulatory compliance.*

Following the shipment incident, a stand down was performed with staff involved in radioactive material shipments and ad-hoc interim corrective action training was provided before further shipments took place. Radioactive material shipments were postponed until the licensee identified the cause of the problem and then only those shipments approved by management were allowed to be made. After completion of the ACE, additional corrective measures were put into place as described above before recommencement of the full shipment program.

The inspector assessed the adequacy of the corrective action against the causes and contributors and confirmed their adequacy. The inspector also observed licensee staff perform shipment surveys during the inspection and interviewed staff to verify their understanding of the corrective actions and their knowledge of the performance problems.

- c. *Determine that a schedule has been established for implementing and completing the corrective actions.*

Corrective actions were assigned to individuals or organizations appropriate to the particular action with a specific completion date provided for each corrective action. A formal tracking mechanism was established for each assigned action and each action was prioritized with reasonably timely due dates. As of May 20, 2004, all corrective actions were completed except for the calibration of newly procured instrumentation and the development of contractor training. The calibration of the new equipment is to be completed in June 2004 and the contractor training is slated for completion before the licensee's fall 2004 outage.

- d. *Determine that quantitative or qualitative measures of success have been developed for determining the effectiveness of the corrective actions to prevent recurrence.*

The licensee developed a means to validate the effectiveness of its corrective actions for the performance issue through a self-assessment of the radioactive material shipping program scheduled to be completed before the fall 2004 outage. The assessment will review overall implementation of the shipping program, and the implementation and adequacy of the specific corrective actions for the performance problem.

### **03 MANAGEMENT MEETINGS**

#### Exit Meeting Summary

The inspection results were presented to Mr. Jensen and other members of licensee management at the conclusion of the inspection on May 20, 2004. The licensee acknowledged the results presented.

### **04 OTHER ACTIVITIES**

#### 4OA3 Event Followup

(Closed) Violation 05000315/2004005-01; 05000316/2004005-01 and EA-04-006

The Final Significance Determination for the White performance issue and the associated Notice of Violation were issued by letter dated March 12, 2004 (Inspection Report 05000315/2004005; 05000316/2004005). The inspector reviewed the licensee's root cause equivalent evaluation of the performance issue, the corrective actions and the licensee's reply to the Notice of Violation, dated April 12, 2004, during this supplemental inspection. Those reviews determined that the licensee's actions were adequate to close the violation. The licensee is currently in full compliance.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## SUPPLEMENTAL INFORMATION

### KEY POINTS OF CONTACT

#### Licensee

J. Jensen, Site Vice President  
J. Bundick, Senior Environmental Specialist  
J. Carlson, Environmental Manager  
J. Harner, General Supervisor, Environmental  
J. Long, Senior Nuclear Specialist  
L. Weber, Performance Assurance Director  
T. Woods, Compliance Supervisor, Regulatory Affairs

#### NRC

C. Pederson, Director, Division of Reactor Safety  
B. Kemker, Senior Resident Inspector  
I. Netzel, Resident Inspector

### LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

#### Open

None.

#### Closed

50-315 & 316/04-05-01	VIO	Failure to Prepare a Package of Radioactive Waste So That under Conditions Normally Incident to Transportation, the Radiation Levels on the Surface of the Package Did Not Exceed Department of Transportation Limits (EA-04-006).
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#### Discussed

None.

## LIST OF DOCUMENTS REVIEWED

### Condition Reports

CR 03281042; Apparent Cause Evaluation for Shipment of Radioactive Waste that Exceeded DOT Limits; 10/8/2003

CR 03281042; Expanded Apparent Cause Evaluation/Extent of Cause Review for Shipment of Radioactive Waste that Exceeded DOT Limits; 5/03/2004

CR 93-0130 and Associated Attachments; Incoming Survey of Empty Sea Van Discovered an Exterior Contact Dose Rate of 180 Millirem/Hour on the Front of the Box; 1/27/1993

### Condition Reports Written as a Result of this Supplemental Inspection

CR 04133101; An Assessment of the Free Release Program is Needed; 05/12/2004

CR 04133097; There is a Need to Review and Enhance Procedure PMP-7030-CAP-001 Guidance for the Screening of Actual and Potential Radiological Events; 05/12/2004

CR 04133099; Written Guidance is Needed for How to Perform an Extent of Cause Evaluation for CRs Related to NRC White or Higher Issues; 05/12/2004

CR 04133100; The Causal Evaluation for CR 03281042 Was Too Narrowly Focused; 05/12/2004

CR 04139011; Weak Internal NRC 95001 Inspection Readiness Review; 05/18/2004

### Procedures

PMP-7030-CAP-001; Corrective Action Program Process Flow; Revisions 15 and 16

DTG-7030-CAP-001; Desk Top Guide for Performing Root Cause Analysis; Revision 3

PMP-7030-OE-001; Operating Experience Program; Revision 7

PMP-6010-PCP-901; Shipment of Radioactive Materials and Waste; Revisions 1(a) and 1(b)

12-THP-6010-RPP-900; Preparation of Radioactive Shipments; Revisions 10, 11 and 11(a)

12-THP-6010-RPP-905; Solid Waste Handling and Packaging; Revisions 4(b) and 5

12-THP-6010-RPP-914; Preparation of Non-Waste Radioactive Equipment and Material for Shipment; Revision 0



### Other Documentation

GP-O-990-1; Root Cause Evaluation Qualification Record; Revision 4

GP-O-9830; Apparent Cause Evaluation Qualification Record for a Specified Individual;  
12/8/2003

Apparent Cause Evaluation Format (Short Form for Singular Event, Human Performance and  
Organizational & Programmatic Issues); Undated

Reply to Notice of Violation and Enforcement Action EA-04-006; 4/12/2004

NRC Information Notice 87-31; Blocking, Bracing and Securing of Radioactive Materials  
Packages in Transportation; 7/10/1987

Lesson Plan for Interim Corrective Actions Associated With the Radwaste Shipping Event of  
October 7, 2003; Ad Hoc 030277; Revision 0

EA-04-006 October 8, 2003 Transportation Concern White Paper Inspection Readiness  
Review; Revision 0

Operating Experience Program Recovery Plan - LO0006; Revision 0

Corrective Action Status Summary for CR 03281042; 5/10/2004

October 9, 2003 Ad Hoc Training Attendance Sheet for Shipping Incident; Revision 0

OE - INPO Operating Experience Report No. 3462; Use of Different Survey Meters Yields  
Different Results; 7/17/1989

OE - INPO Operating Experience Report No. 5492; Radioactive Shipment Exceeds DOT Limits;  
7/31/1992

OE - INPO Operating Experience Report No. 13815; Dose Rates in Excess of DOT Limits;  
5/20/2002

OE - INPO Operating Experience Report No. 15971; Limited Quantity Shipment Container  
Found to Exceed Dose Rate Limits by Receiving Facility; 4/14/2003

## LIST OF ACRONYMS USED

ACE	Apparent Cause Evaluation
CR	Condition Report
DOT	Department of Transportation
EOC	Extent of Cause
IP	Inspection Procedure
OE	Operating Experience
POP	Performance Observation Program