



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

November 5, 2009

EA-09-349

Mr. Christopher J. Schwarz
Vice President Operations
Entergy Nuclear Operations, Inc.
Palisades Nuclear Plant
27780 Blue Star Memorial Highway
Covert, MI 49043-9530

**SUBJECT: PALISADES NUCLEAR PLANT NRC SUPPLEMENTAL (95001) INSPECTION
REPORT 05000255/2009007**

Dear Mr. Schwarz:

On September 25, 2009, the U.S. Nuclear Regulatory Commission (NRC) completed a supplemental inspection at your Palisades Nuclear Plant. The enclosed report documents the inspection results which were discussed on September 25, 2009, with you and members of your staff.

The NRC performed this supplemental inspection consistent with the NRC Action Matrix due to a White performance issue in the Occupational Radiation Safety Cornerstone. Specifically, on January 30, 2009, the NRC issued its Final Significance Determination and a Notice of Violation (NRC Inspection Report 05000255/2008011(DRS)) for a White finding that involved failures by your staff to perform adequate radiological evaluations necessary to properly identify the radiological hazards to assess the dose for workers performing demobilization of fuel reconstitution equipment. The NRC staff was informed on August 12, 2009, of your staff's readiness for this inspection.

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.

Your staff's evaluation identified that the root cause of the issue was a lack of radiation protection management and supervisory oversight of the work activity that led to low standards and complacency. As a result, the radiological hazards were underestimated. Based on the results of this inspection, no findings associated with your staff's evaluation of this performance issue were identified. The inspectors determined that your root cause evaluation and associated self-assessment for the White finding were conducted using systematic techniques and adequately identified the root and contributory causes for the specific performance issue.

Corrective actions were developed to address the identified cause and contributors, which included improvements to the radiation work permits that govern reactor cavity and spent fuel pool work, development of a work instruction for high risk activities, and expanded staffing for the radiation protection organization. We concluded that your corrective actions were adequate to address the causes that were identified in your evaluation so as to prevent recurrence. Therefore, consistent with NRC Manual Chapter 0305, "Operating Reactor Assessment Program," this issue has been removed from consideration of future agency actions because four quarters has elapsed following our input of the original finding in the assessment program (i.e., the end of the third quarter 2009). Based on our assessment of your performance, as of the end of the third quarter 2009, Palisades is in the licensee response band (Column 1) of the Action Matrix.

However, during the course of our inspection activities the inspectors identified one Severity Level IV Non-Cited Violation (NCV) for the failure to include information pertinent to worker radiation exposures as documented on NRC Form 5s, as required by 10 CFR 50.9, "Completeness and Accuracy of Information." No cross-cutting aspects were identified with this violation. Because the violation was of very low safety-significance, neither was it repetitive nor willful, and was entered into the Palisades' corrective action program, this violation is being treated as an NCV, in accordance with the NRC's Enforcement Policy. If you contest the NCV in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Palisades Nuclear Plant.

C. Schwartz

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In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any), will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Anne T. Boland, Director
Division of Reactor Safety

Docket Nos. 50-255
License Nos. DPR-20

Enclosure: Inspection Report 05000255/2009007
w/Attachments: Supplemental Information

cc w/encl: Distribution via ListServ

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Dockets: 50-255

Licenses Nos.: DPR-20

Reports Nos.: 05000255/2009007

Licensee: Entergy Nuclear Operations Company, Inc.

Facility: Palisades Nuclear Plant

Location: Covert, MI

Dates: August 31 through September 25, 2009

Inspectors: J. Cassidy, Senior Health Physicist
M. Phalen, Health Physicist
J. Ellegood, Senior Resident Inspector

Technical
Specialists: P. Lee, PhD, Health Physics
R. Pedersen, Senior Technical Advisor for NRR Health
Physics Program Office

Approved By: Wayne Slawinski, Branch Chief (Acting)
Plant Support Team
Division of Reactor Safety, RIII

Enclosure

SUMMARY OF FINDINGS

IR 05000255/2009007; 08/31/09 – 09/25/09; Palisades Nuclear Plant. Inspection Procedure 95001 Supplemental Inspection.

The report covers a supplemental inspection performed by regional health physics inspectors, the Palisades Nuclear Plant senior resident inspector, and assistance from NRC regional and headquarters personnel. One Severity Level IV NCV of 10 CFR 50.9 was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process" (SDP). Cross-cutting aspects are determined using Inspection Manual Chapter 0305 "Operating Reactor Assessment Program." Findings for which the SDP does not apply may be Green or assigned a severity level after NRC management review. 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.

Cornerstone: Occupational Radiation Safety

The NRC performed this supplemental inspection in accordance with inspection procedure (IP) 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area," to assess the licensee's evaluation associated with the failure to perform adequate radiological evaluations necessary to properly identify the radiological hazards and to assess the dose for workers that received unanticipated dose rate alarms on their electronic dosimeters while performing demobilization of fuel reconstitution equipment in October 2007. The NRC staff previously characterized this issue as having low to moderate safety-significance (White) as documented in NRC Inspection Report 05000225/2008011(DRS). During this supplemental inspection, the inspectors determined that the licensee performed an adequate evaluation of the specific performance issue and that comprehensive corrective actions addressed each of the root and contributing causes. The licensee identified one root cause in that Palisades underestimated the extent of radiological hazards that were present during the demobilization of the equipment due to the "lack of radiation protection management and supervisory oversight. This led to: (a) low standards; (b) mindset; and (c) complacency associated with the work activity." Additionally, two contributing causes were identified. Specifically, inadequate communications and insufficient supervisory radiation protection (RP) staff resource was devoted to the work.

Corrective actions as documented in the root cause evaluation included:

- Enhancement to Radiation Work Permits (RWPs) for Spent Fuel Pool (SFP) and reactor cavity work to require the use of extremity dosimetry for the removal of equipment from the water, unless waived in writing by the Radiation Protection Manager.
- Development of a Work instruction (WI) RSD-H-019 for High Risk Assessment and Supervisory Oversight.

- Implementation of Entergy fleet procedure EN-OP-116 for Infrequently Performed Test and Evolution.
- Expanded RP staffing to meet the Entergy Standard level for qualified technicians and supervisors.

The station also provided supplemental information to the NRC regarding additional actions that have been taken to ensure that there is an appropriate level of radiation protection management and supervisory oversight associated with radiologically significant work activities, including the reconstitution of damaged fuel.

Based on the licensee's progress in evaluating and correcting the issues associated with the failures to perform adequate radiological evaluations necessary to properly identify the radiological hazards to assess the dose for workers performing demobilization of fuel reconstitution equipment that resulted in the White finding, this occupational 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."

Findings

Severity Level IV. The inspectors identified a Severity Level IV NCV of 10 CFR 50.9, "Completeness and Accuracy of Information." The inspectors identified that the licensee, on April 17, 2008, submitted to the NRC inadequate NRC Form 5s, "Occupational Dose Record for a Monitoring Period" for three individuals that were involved in the demobilization of spent fuel reconstitution equipment in October 2007. The NRC Form 5s were not complete and accurate in all material respects. Specifically, the NRC Form 5s did not include pertinent information relative to the radiological implications to these individuals regarding their personal involvement in the demobilization of spent fuel reconstitution equipment under circumstances when the licensee's ability to assess the worker's dose was compromised. In particular, the NRC Form 5s failed to document the uncertainties associated with the workers' radiation doses, as was necessary in this instance consistent with the instructions on the Form 5. When the NRC questioned the licensee on the accuracy of these NRC Form 5 submittals, the licensee submitted revised NRC Form 5s.

The violation was more than minor because the missing information was material to the NRC. Specifically, this information is used by the NRC in its evaluation of the risk of radiation exposure associated with the licensed activity and in exercising its statutory authority to monitor and regulate the safety and health practices of its licensees. This Severity Level IV violation is of very low safety-significance because if the information had been complete and accurate when reviewed by the NRC, it likely would not have resulted in a reconsideration of a regulatory position or substantial further inquiry, such as an additional inspection or a formal request for information. Because this violation was of very low safety-significance, neither was it repetitive nor willful, and was entered into the licensee's corrective action program [Condition Report (CR)-PLP-2009-04213], the violation is being treated as an NCV, consistent with the NRC Enforcement Policy. No cross-cutting aspects were identified with this violation. (Section 03.01)

REPORT DETAILS

01. Inspection Scope

The NRC staff performed this supplemental inspection in accordance with IP 95001 to assess the licensee's evaluation of a (White) finding, which affected the occupational radiation safety cornerstone in the radiation safety strategic performance area. The inspection objectives were to:

- provide assurance that the root and contributing causes of risk-significant issues were understood;
- provide assurance that the extent of condition and extent of cause of risk-significant issues were identified; and
- provide assurance that the licensee's corrective actions for risk-significant issues were or will be sufficient to address the root and contributing causes to preclude repetition.

The licensee entered the Regulatory Response Column of the NRC's Action Matrix in the fourth quarter of 2008 as a result of one inspection finding of low to moderate safety-significance (White). On October 04, 2007, during the demobilization of fuel reconstitution equipment, three supplemental employees received unanticipated dose rate alarms. The licensee's response to these alarms did not adequately recognize and assess the radiological hazards. As a result, the internal and extremity radiation doses for the involved employees could not be accurately determined. A preliminary White finding, Apparent Violation (AV) 05000255/2008011-01, was issued in inspection report 05000255/2008011. A final White finding, based on the results of radiological risk in accordance with the occupational radiation safety-significance determination process, was issued with a Notice of Violation (NOV) in a letter dated January 30, 2009.

The licensee informed the NRC staff that they were ready for the supplemental inspection on August 12, 2009. The licensee performed a root cause evaluation (RCE), CR-PLP-2008-05200, Revision 01, to identify the direct and contributing causes and also causal factors, which allowed for the risk-significant finding and to determine the organizational attributes that resulted in the White finding. The licensee also addressed safety culture in the RCE.

The inspectors reviewed the licensee's RCE, as well as other evaluations conducted in support and as a result of the RCE. The inspectors reviewed corrective actions that were taken or planned to address the identified causes. The inspectors also held discussions with licensee personnel to ensure that the root and contributing causes and the contribution of safety culture components were understood and corrective actions taken or planned were appropriate to address the causes and preclude repetition.

02. Evaluation of Inspection Requirements

02.01 Problem Identification

- a. Inspection Procedure 95001 requires that the inspection staff determine that the licensee's evaluation of the issue documents who identified the issue (i.e., licensee-identified, self-revealing, or NRC-identified) and the conditions under which the issue was identified.

This issue of inadequate response to electronic dosimeter alarms because the licensee's radiation safety staff did not adequately recognize and assess the radiological hazards associated with the three supplemental employees receiving unanticipated dose rate alarms was identified by regional NRC health physics staff as a part of the baseline inspection program. The issue is documented in several records within the licensee's corrective action program, including the licensee's RCE.

- b. Inspection Procedure 95001 requires that the inspection staff determine that the licensee's evaluation of the issue documents how long the issue existed and prior opportunities for identification.

During the conduct of the root cause evaluation, the licensee reviewed the radiological circumstances associated with this event. Additionally, the licensee reviewed its corrective action and work control databases for similar type issues specific to inadequate radiological evaluations that led to the failure to identify radiological hazards of regulatory significance. However, there was a significant time lapse from the time the NRC identified the event to completion of the licensee's evaluation. Additionally, the licensee missed several opportunities to self-identify the issue. A comprehensive review of the issue began after prompting by NRC inspectors.

- c. Inspection Procedure 95001 requires that the inspection staff determine that the licensee's 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 issue. However, the licensee did evaluate the occupational external exposures and bounded the shallow dose equivalent, with uncertainties, given the limited initial radiological data that was available. The licensee indicated that a more thorough dose evaluation including internal dose from alpha radiation would be performed. This action is tracked as CR-PLP-2009-4555.

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

- a. Inspection Procedure 95001 requires that the inspection staff determine that the licensee evaluated the issue using a systematic methodology to identify the root and contributing causes.

The licensee conducted a root cause analysis of the performance issue, which was later supplemented with an extent of cause review during the licensee's Focused Area Self-Assessment. The licensee used Procedure EN-LI-118, "Root Cause Analysis Process," Revision 11, and other implementing procedures to evaluate these issues. These procedures included such analysis tools as Event and Causal Factor Charting,

Change Analysis, Barrier Analysis, Causal Factor Trending, and Human Performance Error Reviews. The inspectors evaluated the root cause evaluation report against the requirements of the licensee's procedures and determined that the evaluations performed followed the administrative procedure requirements.

The inspectors concluded that systematic methods were used to identify the root cause and contributing cause.

- b. Inspection Procedure 95001 requires that the inspection staff determine that the licensee's RCE was conducted to a level of detail commensurate with the significance of the issue.

The inspectors concluded that the root cause evaluation had identified and assessed the potential contributors to the decrease in performance in sufficient detail to identify appropriate corrective actions. Although acceptable, the inspectors concluded that the RCE missed opportunities that would have been beneficial to identify the full extent of the issue, as described below.

Root Cause

The licensee identified one root cause in its evaluation, in that Palisades underestimated the extent of radiological hazards during the demobilization following fuel reconstitution due to the "lack of radiation protection management and supervisory oversight. This led to: (a) low standards; (b) mindset; and (c) complacency associated with the reconstitution of severely damaged fuel."

Contributing Causes

Additionally, two contributing causes were identified.

1. Inadequate communications as evidenced by the following:
 - Communications between the RP technician and the contract workers led the contract workers to believe that they could disassemble the temporary storage baskets without the RP technician being present.
 - Communications between reactor engineering, RP management, and other members of the Palisades staff did not adequately alert the organization, including the condition review group and corrective action review board personnel, of the potential contamination and exposure problems associated with damaged fuel.
2. Insufficient supervisory RP staff resources available to provide needed supervision and oversight.

The inspectors identified that the RCE was acceptable but was narrow in scope, in that the terminal objective identified in the root cause evaluation drove the extent of condition review. Specifically, the root cause evaluation truncated at the point where the RP staff failed to recognize and assess the radiological hazards after responding to the unanticipated dose rate alarms. The inspection team observed that there was a missed opportunity to obtain pertinent information relevant to why the RP staff failed to

recognize the radiological hazards. Through means independent of the RCE, the NRC discovered several additional facts which were not explored by the licensee's root cause team. First, at the time of the initial incident, the need to perform extremity dose assessments was brought to the attention of several members of the RP staff, including the RP Manager. However, the licensee's root cause team did not explore why no follow-up actions occurred despite the licensee's knowledge of this issue. Second, the presence of high energy beta and alpha emitting isotopes on the refueling floor, as well as elevated alpha to beta/gamma ratios, were being identified to senior RP staff, including the RP Manager at the time the event occurred. The inspectors also identified that alpha ratios were anomalous to industry norms. Lastly, the NRC learned that there may have been additional data available to Palisades near the time of the event occurrence relative to the spacer pins. Specifically, the inspectors were informed that persons had opened the tool box while it was under quarantine on the refuel floor and this activity could have provided information to aid in worker dose reconstructions.

- c. Inspection Procedure 95001 requires that the inspection staff determine that the licensee's RCE included a consideration of prior occurrences of the issue and knowledge of operating experience (OE).

The RCE included an historical review of the licensee's corrective action and work control databases and did not document any similar type issues associated with inadequate radiological evaluations that led to the failure to identify radiological hazards of regulatory significance. The RCE conducted a review of previous industry events. This review did not identify any directly related issues.

The inspectors concluded that, in general, the licensee's root cause evaluation appropriately considered both internal and external operating experience. The evaluation assessed the licensee's previous lack of recognition, evaluation, and timely mitigation of radiological events.

- d. Inspection Procedure 95001 requires that the inspection staff determine that the licensee's RCE addresses the extent of condition and extent of cause of the issue(s).

The licensee's evaluations considered the potential for common cause and extent of condition for each of the identified root causes. Additionally, the licensee evaluated radiation protection department and other department responses to unanticipated alarm conditions.

The inspectors concluded that the extent of condition and extent of cause reviews performed by the licensee were adequate.

- e. Inspection Procedure 95001 requires that the inspection staff determine that the licensee's root cause, extent of condition, and extent of cause evaluations appropriately considered the safety culture components as described in IMC 0305.

The inspectors concluded that the current safety culture aspect associated with this issue was appropriately considered in the licensee's RCE and included consideration of whether a weakness in any safety culture component was a root cause or a significant contributing cause of the issue.

02.03 Corrective Actions

- a. Inspection Procedure 95001 requires that the inspection staff determines that: (1) the licensee specified appropriate corrective actions for each root and/or contributing cause; or (2) an evaluation that states no actions are necessary is adequate.

Corrective actions were developed to address the identified causes and the contributors so as to prevent recurrence of the performance issue. Corrective actions as documented in the root cause evaluation included:

- Enhancements to Radiation Work Permits for SFP and Reactor Cavity work to require the use of extremity dosimetry for the removal of equipment from the water, unless waived in writing by the Radiation Protection Manager.
- Development of a Work Instruction (WI) RSD-H-019 for High Risk Assessment and Supervisory Oversight.
- Implementation of Entergy fleet procedure EN-OP-116 for Infrequently Performed Test and Evolutions.
- Expanded RP staffing to meet the Entergy Standard level for qualified technicians and supervisors.

The licensee also provided supplemental information to the NRC regarding additional actions that have been taken to ensure that there is an appropriate level of radiation protection management and supervisory oversight associated with radiologically significant work activities, including responses to unanticipated electronic dosimeter alarms and work associated with the reconstitution of severely damaged fuel.

The inspectors determined that the corrective actions taken were appropriate for the associated causes.

- b. Inspection Procedure 95001 requires that the inspection staff determine that the licensee prioritized corrective actions with consideration of risk significance and regulatory compliance.

The workers involved exited the plant after receiving Dose Rate Alarms, reporting to RP Supervision at Access Control. The RP staff then restricted access for the workers, in accordance with station procedures. Follow-up radiological surveys were performed and administrative controls were put in place prior to resuming work on the refueling floor. An RP standard for Continuous RP Coverage was implemented for removal of items from the Spent Fuel Pool and a site-wide communication was issued regarding this event and the requirement to have continuous coverage for removal of items from the Spent Fuel Pool.

Additionally, the station implemented long term corrective actions that included means to ensure there was an appropriate level of radiation protection management and supervisory oversight associated with radiologically significant work activities on the refuel floor, including the reconstitution of severely damaged fuel.

The inspectors considered the prioritization of the established corrective actions to be appropriate.

- c. Inspection Procedure 95001 requires that the inspection staff determine that the licensee established a schedule for implementing and completing the corrective actions.

The licensee established adequate schedules for the completion of the specified corrective actions. The majority of the corrective actions had been completed prior to this inspection, and the remaining corrective actions were on schedule for completion. The inspectors reviewed the completed corrective actions and concluded that they had been generally implemented in a timely and effective manner. The inspectors did not identify any concerns with the scheduling or completion of corrective actions.

- d. Inspection Procedure 95001 requires that the inspection staff determine that the licensee developed quantitative and/or qualitative measures of success for determining the effectiveness of the corrective actions to preclude repetition.

The licensee developed a means to validate the effectiveness of its corrective actions for the performance deficiency. However, the inspectors questioned the adequacy of certain performance measures. The inspection team reviewed the licensee's proposed effectiveness reviews in detail and concluded that some of the proposed reviews were narrowly focused. Specifically, the licensee planned to review the effectiveness of radiological controls for EN-RP-123 "Radiological Controls for Highly Radioactive Objects" through Snap Shot Self-Assessments for Spent Fuel Pool and Reactor Cavity Work. The NRC concluded that although the root cause of the event was a lack of RP management and supervisory oversight, the effectiveness review did not include an assessment of RP management and supervisory oversight of all radiologically significant work at the station, only work that occurs on the refuel floor. Additionally, the NRC communicated to the licensee that its focus did not include station response to other unanticipated radiological alarms, including electronic dosimeters, area radiation monitors, liquid and air effluent monitors, continuous air monitors, etc.

The licensee agreed to re-evaluate the comprehensiveness of the effectiveness review performance measures. Condition Report CR-PLP-2009-04543 was generated by the licensee to address this issue.

- e. Inspection Procedure 95001 requires that the inspection staff determine that the licensee's planned or taken corrective actions adequately address a Notice of Violation (NOV) that was the basis for the supplemental inspection, if applicable.

The NRC issued its final significance determination and Notice of Violation (05000255/2008011-01), Failure to Assess Dose to Three Workers after a Known Change in Radiological Conditions Near the Spent Fuel Pool) to the licensee on January 30, 2009. The NRC concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and full compliance has been achieved. The NRC staff did not require a response to the NOV from the licensee; therefore, this inspection requirement was not applicable.

03 OTHER ISSUES

03.01 (Open/Closed) Violations (VIO) 050000255/2009007-01

a. Inspection Scope

The inspectors assessed the radiological controls for work areas having a history of, or the potential for, airborne transuranics. Additionally, the inspectors assessed the adequacy of the licensee's extremity and internal dose assessment processes, and the regulatory required documentation associated with those assessments.

b. Findings

Introduction: The inspectors identified a violation of 10 CFR 50.9 "Completeness and Accuracy of Information," in that the licensee submitted to the NRC an NRC Form 5, "Occupational Dose Record for a Monitoring Period," that is required to comply with 10 CFR 20.2106, "Records of Individual Monitoring Results," for three individuals that were involved in the demobilization of spent fuel reconstitution equipment in October 2007. Specifically, the NRC Form 5s were not complete and accurate in all material respects by omitting data relevant to the worker's radiation exposures.

Description: The NRC Form 5s completed for the workers involved in the October 2007 incident, involving demobilization of fuel reconstitution equipment did not include pertinent information relative to the radiological implications to these individuals regarding their personal involvement in these work activities under circumstances when the licensee's ability to assess the worker's dose was compromised. Specifically, the licensee failed to document the uncertainties in the worker dose estimates as was necessary for these circumstances, consistent with the instructions for the NRC Form 5. When the NRC questioned the licensee on the accuracy of these NRC Form 5 submittals, the licensee submitted revised NRC Form 5s on September 29, 2009. The revised NRC Form 5s included reference to NRC inspection reports that are publicly available, such that the involved individuals would be cognizant of the circumstances surrounding their personal radiation exposures.

Analysis: The inspectors determined that the failure to include all pertinent information on NRC Form 5s was a performance deficiency because licensees are required to adhere to the regulations of 10 CFR Part 20. The inspectors concluded that the cause of the deficiency was reasonably within the licensee's ability to foresee and correct. The violation was subject to traditional enforcement because it potentially impacted the NRC's ability to perform its regulatory function and was more than minor because the missing information was material to the NRC. Specifically, this information is used by the NRC in its evaluation of the risk of radiation exposure associated with the licensed activity and in exercising its statutory authority to monitor and regulate the safety and health practices of its licensees. This violation is a Severity Level IV violation of very low safety-significance because if the information had been complete and accurate when reviewed by the NRC, it likely would not have resulted in a reconsideration of a regulatory position or substantial further inquiry, such as an additional inspection or a formal request for information. No cross-cutting aspects were identified with this violation.

Enforcement: During the NRC inspection, a violation of NRC requirements was identified. Title 10 CFR 50.9 “Completeness and Accuracy of Information,” requires in part, that information provided to the Commission by an applicant for a license, or by a licensee or information required by statute or by the Commission’s regulations, Orders, or license conditions to be maintained by the applicant or the licensee, is complete and accurate in all material respects. Title 10 CFR 20.2106 “Records of Individual Monitoring Results” requires in part, that the licensee shall maintain records of doses received by all individuals for whom monitoring was required, pursuant to 10 CFR 20.1502. Additionally, the licensee shall maintain these records on NRC Form 5, in accordance with the instructions for NRC Form 5, which require additional information is included, which may be necessary to determine compliance with limits.

Contrary to the above, on April 17, 2008, the licensee provided information to the NRC that was not complete and accurate in all material respects. Specifically, the licensee submitted to the NRC inadequate NRC Form 5s, “Occupational Dose Record for a Monitoring Period” for three individuals that were involved in the demobilization of spent fuel reconstitution equipment in October 2007. The NRC Form 5s were not complete and accurate in all material respects in that, the NRC Form 5s did not include pertinent information relative to the radiological implications to these individuals regarding their personal involvement in the demobilization of spent fuel reconstitution equipment under circumstances when the licensee’s ability to assess dose was compromised. Because this violation was of very low safety-significance, neither was it repetitive nor willful, and was entered into the licensee’s corrective action program (Condition Reports CR-PLP-2009-04213), this violation is being treated as an NCV, consistent with the NRC Enforcement Policy: NCV 05000255/2009007-01; Violation of 10 CFR 20.50.9; “Completeness and Accuracy of Information” regarding support of 10 CFR 20.2106 “Records of Individual Monitoring Results.” Corrective actions included resubmitting updated NRC Form 5s for the involved individuals.

03.02 (Closed) Violation (VIO) 050000255/2008011-01: Failure To Assess Dose To Three Workers After A Known Change In Radiological Conditions Near The Spent Fuel Pool.

The inspectors reviewed the corrective actions to address the violation as documented in this report. This violation is closed.

04 MANAGEMENT MEETINGS

Regulatory Performance Meeting Summary

On September 25, 2009, the inspectors presented the inspection results to Mr. C. Schwarz, Site-Vice President, and other members of the staff who acknowledged the results of the inspection and the violation of applicable regulatory requirements. The inspectors confirmed that proprietary information was not provided or examined during this inspection.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

M. Ginzel, Palisades Radiation Protection
D. Nestle, Palisades Operations
R. Prescott, PLP CA&A
R. Scudder, PLP Operations
C. Sherman, PLP RP Manager

NRC

R. Lavera, US NRC Headquarters

Other

S. Bell, DC Cook Radiation Protection

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Discussed

050000255/2009007-01	SL-IV	Violation or Title 10 CFR 50.9 Completeness and Accuracy of Information regarding in Support of 10 CFR 20.2106 "Records of Individual Monitoring Results."
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Closed

050000255/2009007-01	SL-IV	Violation or Title 10 CFR 50.9 Completeness and Accuracy of Information regarding in Support of 10 CFR 20.2106 "Records of Individual Monitoring Results."
050000255/2008011-01;	VIO	Failure to assess dose to workers after a known change in radiological conditions near the spent fuel pool – White Finding

LIST OF DOCUMENTS REVIEWED

Procedures

EN-LI-118; Root Cause Analysis Process; Revision 11
EN-OP-116; Infrequently Performed Tests or Evolutions; Revision 02
EN-RP-100; Radworker Expectations; Revision 03
EN-RP-101; Access Control for Radiologically Controlled Areas; Revision 04
EN-RP-104; Personnel Contamination Events; Revision 04
EN-RP-105; Radiological Work Permits; Revision 06
EN-RP-106; Radiological Survey Documentation; Revision 02
EN-RP-110; ALARA Program; Revision 06
EN-RP-122; Alpha Monitoring; Revision 03
EN-RP-123; Radiological Controls for Highly Radioactive Objects; Revision 00
EN-RP-131; Air Sampling; Revision 07
EN-RP-141; Job Coverage; Revision 04
EN-RP-142; Failed Fuel Response; Revision 02
EN-RP-201; Dosimetry Administration; Revision 03
EN-RP-202; Personnel Monitoring; Revision 07
EN-RP-203; Dose Assessment; Revision 03
EN-RP-204; Special Monitoring Requirements; Revision 03
EN-RP-208; Whole Body Counting and In-Vitro Bioassay; Revision 03
HP 2.14; Radiological Surveys; Revision 25
HP 2.18; Personnel Contamination; Revision 19
HP 2.19; Airborne Radioactivity Sampling; Revision 24
HP 2.20; Radiation Safety Area Posting; Revision 20
HP 2028; Miscellaneous Dosimetry Areas; Revision 30
HP 2.33; Dose Investigations and Assessment; Revision 13
HP 2.44; (Hot) Particle Contamination; Revision 08
HP 2.5; High Radiation Area Entry and Control; Revision 26
HP 2.8; Response to Unusual Radiological Occurrences; Revision 18
HP 2.8; Response to Unusual Radiological Occurrences; Revision 19
HP 2.8; Response to Unusual Radiological Occurrences; Revision 20
HP 2.8; Response to Unusual Radiological Occurrences; Revision 21
HP 8.2; Whole Body Count Evaluation; Revision 15
HP 8.6; Bioassay Sample Collection and Analyses; Revision 02

HP 8.9; DAC-Hour Dose Assignment; Revision 12

HP 8.11; Whole Body Counting; Revision 15

Evaluations

CR-PLP-2006-03826; INPO AFI Weakness in Radiation Permits; August 2006

CR-PLP-2007-04002; Increased Noble Gas Concentration in Containment; September 2007

CR-PLP-2007-04003; Passport to Sentinel Issues; September 2007

CR-PLP-2007-04304; Locked High Radiation Area Found Unlocked; September 2007

CR-PLP-2007-04361; Override Key for New Fuel Elevator Incident; September 2007

CR-PLP-2007-04338; Personnel Contamination Upon Return to Station; September 2007

CR-PLP-2007-04383; Evaluation of New Fuel Inspection Elevator; September 2007

CR-PLP-2007-04638; Non-Generation of CR's for Unanticipated Dose Rate Alarms;
September 2007

CR-PLP-2007-04869; Unposted High Radiation Area; October 2007

CR-PLP-2008-02671; INPO AFI Regarding Improper Radioactive Material Control; June 2008

CR-PLP-2008-05200; NRC White Finding Regarding Un-Assessed Dose; December 2008 (and subsequent daughter documents)

CR-PLP-2009-03755; NRC 95001 Readiness Self Assessment; July 2009

CR-PLP-2009-04213; Proposed Severity Level IV Violation for Information on NRC Form 5s;
September 2009

Miscellaneous

EAD Dose and Dose Rate Alarms; Condition Reports Pertaining to EAD Dose and Dose Rate Alarms; various dates

EAD Dose and Dose Rate Alarms; EN-RP-203 Attachment 9.10's pertaining to EAD Dose and Dose Rate Alarms; various dates

EN-LI-118 CR-PLP-2008-05200 Effectiveness Review Criteria; Revision 11

Focused Self-Assessment Report - Draft; July 2009

Focused Self Assessment Concerns Response – Final; August 2009

Formal Evaluation Dose Consequence Associated with Areva Spacer Pins; July 2009

LO-PLPLO-2007-00160; Entergy Pre-outage Readiness Assessment; July 2007

LO-PLPLO-2009-00002; Effectiveness Review of CR-05200; June 2009

LO-PLPLO-2009-00031; Pre-NRC 95-001 Assessment; August 2009

O2C-PAL-2007-0298; September 2007

Operational Experience 28239; February 2009

Personnel Contamination Event Data; CR-PLP-2009-00127 To 0375 Regarding Dose And Dose Rate Alarms; Various Dates

Personnel Contamination Event Data; EN-RP-203 Attachment 9.10 Packages Regarding Dose And Dose Rate Alarms; Various Dates

RWP 2009-0438 Fuel Inspection and Reconstitution;

WI-RSD-H-018; Containment and Auxiliary Building Posting

WI-RSD-H-019; Radiological Risk Assessment and Oversight

WI-RSD-H-021; Radiological Controls for Highly Radioactive Objects

Work Order (WO) 00155853 01; Irradiated Fuel Assemblies

ACRONYMS

AV	Apparent Violation
CFR	Code of Federal Regulations
CR	Condition Report
DRS	Division of Reactor Safety
IMC	Inspection Manual Chapter
IP	Inspection Procedure
NCV	Non-Cited Violation
NOV	Notice of Violation
NRC	Nuclear Regulatory Commission
OE	Operating Experience
RCE	Root Cause Evaluation
RP	Radiation Protection
RWP	Radiation Work Permit
SDP	Significance Determination Process
SFP	Spent Fuel Pool
SL	Severity Level
VIO	Violation
WI	Work Instruction
WO	Work Order

C. Schwartz

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Sincerely,

/RA/

Anne T. Boland, Director
Division of Reactor Safety

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SUBJECT: PALISADES NUCLEAR PLANT NRC SUPPLEMENTAL (95001) INSPECTION
REPORT 05000255/2009007

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