

March 6, 2003

Mr. Douglas E. Cooper  
Site Vice President  
Palisades Nuclear Plant  
Nuclear Management Company, LLC  
27780 Blue Star Memorial Highway  
Covert, MI 49043-9530

SUBJECT: PALISADES NUCLEAR PLANT  
NRC SUPPLEMENTAL INSPECTION REPORT 50-255/03-03

Dear Mr. Cooper:

On February 7, 2003, the NRC completed a supplemental inspection at your Palisades Nuclear Generating Plant. The enclosed report presents the results of that inspection, which were discussed on February 7, 2003, with you and members of your staff.

During a baseline NRC inspection conducted on June 3 through June 7, 2002, the NRC identified a concern regarding the adequacy of your staff's critiques of some Performance Indicator (PI) opportunities that occurred during the first quarter of 2002 for the Drill and Exercise Performance (DEP) indicator. Your staff had previously submitted these PI data to the NRC. As a result of this NRC-identified concern, your staff reassessed these PI opportunities and determined that the total number of successful opportunities had declined from the licensee response band (Green PI) into the regulatory response band (White PI) for the eight consecutive calendar quarters ending on March 31, 2002. However, the PI subsequently returned to the licensee response band at the end of the second quarter of 2002.

Your staff performed a root cause evaluation to identify the issues that contributed to your original misreporting of the number of successful DEP opportunities for the first quarter of 2002. Consequently, the NRC conducted this supplemental inspection to provide assurance that the root causes and contributing causes that resulted in this White PI were understood, that the extent of condition was adequately identified, and that completed and planned corrective actions were sufficient to prevent recurrence of misreporting PI data to the NRC.

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. Specifically, the inspectors reviewed your root cause evaluation for the White DEP indicator, associated documents, and your completed and ongoing corrective actions to address this performance problem and to prevent its recurrence.

We found that your staff performed an adequate evaluation that identified two root causes and two contributing causes for this PI being in the regulatory response band at the end of the first quarter of 2002. In general, the root causes involved failures to implement revised regulatory guidance into the drill critique process and to inform affected personnel of these revisions. Contributing causes involved human factors concerns in the format of a form used to document an initial notification message to the State and county officials of an actual or simulated emergency declaration, and an insufficient effectiveness review on an earlier root cause evaluation of the adequacy of provisions for collecting and validating records of PI-related activities. We concluded that the root cause evaluation associated with this supplemental inspection was systematic and conducted at the appropriate depth.

We also concluded that your corrective actions were adequate to address the root causes and contributing causes that were identified in your evaluation and to prevent recurrence. These actions included: (1) revisions to various training program documents; (2) revisions to proceduralized guidance for assessing PI opportunities; (3) implementing an improved notification form; (4) additional training; and (5) implementing a performance improvement plan for the DEP indicator that was based on the Palisades Plant's Change Management Handbook.

Based on the results of this inspection, the NRC identified one issue of very low safety significance (Green). The issue was determined to also involve a violation of NRC requirements. However, because of its very low safety significance and because it has been entered into your corrective action program, the NRC is treating this issue as a Non-Cited Violation, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny this Non-Cited Violation, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, 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 facility.

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

Sincerely,

***/RA by Roy Caniano Acting For/***

Cynthia D. Pederson, Director  
Division of Reactor Safety

Docket No. 50-255  
License No. DPR-20

Enclosure: Inspection Report 50-255/03-03(DRS)

cc w/encl: R. Fenech, Senior Vice President, Nuclear  
Fossil and Hydro Operations  
L. Lahti, Manager, Licensing  
R. Anderson, Executive Vice President and Chief Nuclear Officer, NMC  
A. Udrys, Esquire, Consumers Energy Company  
S. Wawro, Nuclear Asset Director, Consumers Energy Company  
W. Rendell, Supervisor, Covert Township  
Office of the Governor  
Michigan Department of Environmental Quality  
Department of Attorney General (MI)

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-255  
License No: DPR-20

Report No: 50-255/03-03

Licensee: Nuclear Management Company, LLC

Facility: Palisades Nuclear Generating Plant

Location: 27780 Blue Star Memorial Highway  
Covert, MI 49043-9530

Dates: February 3 through February 7, 2003

Inspectors T. Ploski, Senior Emergency Preparedness Inspector  
R. Jickling, Emergency Preparedness Inspector

Approved by: Hironori Peterson , Acting Chief  
Plant Support Branch  
Division of Reactor Safety

## SUMMARY OF FINDINGS

IR05000255-03-03, on 02/03 - 02/07/2003, Nuclear Management Company, Palisades Nuclear Generating Plant. Supplemental Inspection - White performance indicator.

### **Cornerstone: Emergency Preparedness**

The U. S. Nuclear Regulatory Commission (NRC) performed a supplemental inspection to assess the licensee's evaluation associated with its Drill and Exercise Performance (DEP) Performance Indicator (PI) value exceeding the threshold between the licensee response (Green) band and the regulatory response (White) band at the end of the first quarter of 2002. The supplemental inspection, was performed in accordance with Inspection Procedure 95001, Inspection For One or Two White Inputs In A Strategic Performance Area. The inspectors determined that the licensee conducted an adequate evaluation of the root causes and contributing causes of the drill critique failure that resulted in the White PI. The inspectors also determined that the licensee initiated multiple, adequate corrective actions to prevent recurrence.

Green. A finding of very low safety significance was identified. The finding was due to an inadequate critique of two DEP indicator opportunities that occurred during licensed operator training sessions in the first quarter of 2002. The licensee's critique process failed to identify that the completed emergency notification forms to simulated State and county officials were not marked to indicate whether the notification was associated with a drill or an actual emergency in accordance with regulatory guidance, NEI 99-02, Regulatory Assessment Performance Indicator Guideline, regarding the accuracy of such notifications.

The critique failure was considered to be greater than minor because it involved the DEP indicator's value exceeding the threshold between the licensee response (Green) band and the regulatory response (White) band. The critique failure also affected the Emergency Response Organization Performance attribute of the Emergency Preparedness Cornerstone. Since the critique failure was in not identifying that the two notification forms were not marked to indicate whether the notification was associated with a drill or an actual emergency, rather than a risk significant topic (i.e., an incorrect emergency classification, an incorrect protective action recommendation, or an untimely notification), the critique failure is a finding of very low safety significance (Green). Because of the very low safety significance of the finding and because the licensee addressed the finding in its corrective action program, this violation of 10 CFR 50.47(b)(14) is being treated as a Non-Cited Violation (Section 02.1.c).

## REPORT DETAILS

### 01 Inspection Scope

This supplemental inspection was performed by the NRC in accordance with Inspection Procedure (IP) 95001 to assess the licensee's evaluation of the root causes and contributing causes of its misreported data for the Drill and Exercise Performance (DEP) Performance Indicator (PI) for the first calendar quarter of 2002. During a baseline inspection of the licensee's Emergency Preparedness (EP) program (NRC Inspection Report No. 50-255/02-06(DRS)), NRC inspectors identified concerns regarding the accuracy of some Event Notification Forms that were completed by licensed operators during Control Room Simulator (CRS) sessions that were also used as PI opportunities. An Unresolved Item (URI) was issued because the number of misreported successful opportunities appeared sufficient to cause the DEP indicator to decline from the licensee response (Green) band into the regulatory response (White) band. This Inspection Report included an Unresolved Item (URI), which indicated that the licensee performed a reassessment of its DEP opportunities in accordance with the NRC-endorsed notification accuracy criteria in Revisions 1 and 2 of Nuclear Energy Institute (NEI) publication number 99-02.

During this supplemental inspection, NRC evaluated the licensee's Root Cause Evaluation (RCE) report for C-PAL-02-02177, reviewed a sample of documents that were referenced in this RCE, and assessed corrective actions that were either referenced in this RCE or were initiated subsequent to this RCE report's approval in July 2002. The inspectors also discussed the aforementioned documents, as needed, with cognizant licensee personnel. Since this supplemental inspection was conducted using IP 95001, the following details are organized by the specific inspection requirements of IP 95001 which are noted in italics in the following sections.

### 02 Evaluation of Inspection Requirements

#### 02.1 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 issue was identified by NRC inspectors during a baseline EP inspection on June 3 through 7, 2002. The licensee's initial response to the baseline inspection's URI on the DEP indicator's reported data for the first quarter of 2002 was completed in July 2002 and was documented as RCE for C-PAL-02-02177. Based on its review of its previously reported DEP data since the effective date of the revised NEI 99-02 document, the licensee determined that the number of its successful DEP opportunities had been misreported such that the value of this PI declined into the White performance band for the eight calendar quarters ending on March 31, 2002 before returning to the Green performance band by June 30, 2002. The licensee also determined that its misreported successful DEP opportunities were limited to several opportunities in the first quarter of 2002 that occurred during licensed operator training sessions within the Control

Room Simulator (CRS).

Between the July 2001 effective date of Revision 1 of NEI 99-02 and NRC's baseline inspection in June 2002, the licensee's quarterly PI submittals included 22 DEP opportunities of which the licensee reported 19 as successful. The licensee's reassessment of these opportunities resulted in 17 being re-reported to NRC as being successful. The licensee acceptably concluded that the two additional unsuccessful PI opportunities occurred during CRS training sessions in which licensed operators did not complete an item on the notification forms to indicate to simulated State and county officials whether the form was associated with a drill or an actual emergency.

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

The licensee's RCE team adequately determined that the time period of concern began in July 2001 when Revision 1 to the NRC-endorsed NEI 99-02 document became effective. Revision 1 introduced timeliness and accuracy criteria for all actual emergency initial notifications and any pre-designated, simulated emergency initial notifications to State and county officials that would be counted as PI opportunities. These criteria were unchanged in Revision 2 to NEI 99-02, which became effective in January 2002.

The inspectors concluded that the licensee's RCE identified a number of prior opportunities for identifying and correcting errors in the licensee's processes for assessing PI opportunities prior to its periodic PI data submittals to NRC. These prior opportunities are summarized in Subsection 02.2.c of this Inspection Report.

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

The licensee's RCE for C-PAL-02-02177 included an assessment of the risk consequences of the inaccurate information in some of its emergency notification forms completed during CRS training sessions that were also used as PI opportunities since July 2001. The RCE team concluded that there was no safety significance to these errors, which involved not marking the notification forms to indicate whether the notification was associated with an actual emergency event or a drill. The RCE team's conclusion was based on the fact that none of these completed notification forms were transmitted to actual offsite officials during these CRS training sessions.

The RCE team addressed the compliance concerns associated with the misreported DEP indicator data to the NRC. The RCE report for C-PAL-02-02177 indicated the importance of licensees submitting accurate PI data. The RCE report also indicated that EP-related PI data was indicative of a licensee's capability to respond to an emergency.



Attachment 4 to the RCE for C-PAL-02-02177 summarized the Nuclear Management Company's (NMC) position regarding the lack of consistency in marking drill or actual event on notification message forms completed during PI opportunities. Beginning in July 2002, NMC required that all notification message forms be marked to indicate that the form was associated with a drill unless an actual emergency was being declared by an authorized, on-shift emergency responder. However, for the time period from July 2001 through June 2002, NMC concluded that it was acceptable to mark the notification message forms completed during CRS training sessions, which were used as PI opportunities, as either being associated with a drill or an actual emergency event.

Attachment 4 indicated that the NMC's benchmarking activities identified that a lack of consistency in marking drill or actual event on notification forms arose, in part, from an interpretation of some guidance in NEI 99-02. Specifically, the NEI 99-02 guidance indicated that "performance statistics from operating shift simulator training evaluations may be included in this indicator only when the scope requires classification however, there is no intent to disrupt ongoing operator qualification programs." Attachment 4 also indicated that NMC staff planned to present a recommendation to the NEI Safety Performance Assessment Task Force to provide clarification on this NEI 99-02 guidance.

Revision 1 of NEI 99-02 introduced 10 notification form accuracy criteria, which included marking the form to indicate whether the notification was associated with a drill or an actual event. The listing of 10 notification form accuracy criteria in Revisions 1 and 2 of NEI 99-02 did not imply that these criteria had equal safety significance. Instead, these 10 criteria were determined by NEI and NRC staffs to be the items on an initial notification message form that any licensee's staff was expected to be adequately trained to accurately communicate to State and local officials.

The inspectors determined that the Palisades Plant's EP staff were aware of Revision 1 to NEI 99-02, which was effective in July 2001, prior to January 2002 and that the EP staff were procedurally expected to critique DEP indicator opportunities during the first quarter of 2002 in accordance with the current revision of the NEI 99-02 document. Therefore, the failure to provide expectations to licensed operators and their evaluators (during CRS sessions used as PI opportunities) on how to accurately mark notification forms to indicate the reason for the notification message represented an inadequate drill critique process. The licensed operators' lack of or inconsistent marking of these forms to indicate whether the notification was for a drill or an actual emergency was only an operator performance problem. In other words, leaving this item uncompleted on a notification form represented a unsuccessful DEP indicator opportunity, as was also concluded by the licensee in its reassessment of its DEP indicator data for the first quarter of 2002.

10 CFR Part 50, Appendix E IV.F.2.g requires that all training, including exercises, shall provide for formal critiques in order to identify weak or deficient

areas that need correction. Any weaknesses or deficiencies that are identified shall be corrected.

10 CFR 50.47 (b)(14) requires, in part, that periodic exercises and drills be conducted to develop and maintain key skills, and that deficiencies identified as a result of these exercises or drills will be corrected. The inspectors determined that the licensee failed to identify deficiencies in its critiques of two CRS training sessions, which were used as PI opportunities in the first quarter of 2002. Specifically, the operators did not mark the item on the notification form to indicate whether a drill or an actual emergency was the reason for the notification.

The inspectors assessed these two instances of critique failures to identify a performance deficiency in accordance with the criteria of Appendix B of NRC Manual Chapter 0612. The inspectors determined that the critique issue did not have actual safety consequences, did not adversely impact the NRC's ability to perform its regulatory function, and was not willful. However, the issue did involve PI data exceeding a threshold between the licensee response (Green) band and the regulatory response (White) band. Therefore, the critique issue was considered to be greater than minor and that it affected the ERO Performance attribute of the EP Cornerstone. The critique issue was then assessed using Appendix B to NRC Manual Chapter 0609, which is the EP Significance Determination Process. Since the critique failure did not involve a risk significant topic (i.e., an incorrect emergency classification, an incorrect protective action recommendation, or an untimely notification), the critique failure issue is a finding of very low safety significance (Green). Because of the very low safety significance of the finding and because the licensee addressed it in its corrective action program, this violation of 10 CFR 50.47(b)(14) is being treated as a Non-Cited Violation (NCV 50-255/03-03-01).

## 02.2 Root Cause and Extent of Condition Evaluation

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

The licensee formed a RCE team consisting of its Business Support Manager, Training Department Manager, a senior Training Department staff member, EP specialists from two other nuclear power plants, and an individual appointed as the plant's EP Manager subsequent to NRC's 2002 baseline EP inspection.

This team performed the RCE using the techniques of barrier analysis and event and causal factor charting. The RCE team also conducted interviews and document reviews. The inspectors reviewed the team's RCE for C-PAL-02-02177 and discussed it with members of the root cause team. The inspectors concluded that the RCE was performed in a systematic manner to determine the root causes and contributing causes.

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

The licensee's RCE term concluded that the initially misreported DEP indicator data, which resulted in a White PI following records reassessment, resulted from the following two root causes and two contributing causes, as stated in the RCE for C-PAL-02-02177. The inspectors concluded that this RCE was conducted to an appropriate level of detail.

#### Root Causes

- (1) Shift Supervisors incorrectly completed the Emergency Notification Forms because the Emergency Preparedness Organization did not analyze and communicate the impact of NEI 99-02, Revision 1, using a site change management policy.**

The inspectors determined that this root cause statement referred only to those DEP PI opportunities that occurred during CRS training sessions and not also to drills involving CRS, TSC, and EOF staffs. During those multi-facility drills, CRS staff correctly completed Emergency Notification Forms to indicate that a drill was in progress.

The RCE team recognized that the licensee's EP staff had received Revision 1 of the NRC-endorsed NEI 99-02 document, which introduced timeliness and accuracy criteria for notification messages to State and county officials. The team also identified that, although EP staff then revised their desktop guidance for compiling and assessing PI opportunities, the EP staff did no further evaluation of the impact of the changes in Revision 1 of NEI 99-02 on the training department, training materials, or their "customers." For example, the RCE team interviewed Shift Supervisors and concluded that they had not been informed that the NEI 99-02 document's notification accuracy criteria were applicable to the notification forms completed during CRS training sessions used as PI opportunities. The inspectors determined that "customers" were any ERO members who would be tasked with filling out, approving, and/or communicating emergency notification message forms.

The RCE team also identified that a site change management policy, which became the "Palisades Nuclear Plant Change Management Handbook," was in draft form at the time of NRC's 2002 baseline EP inspection. The team reasonably concluded that, if this handbook been finalized and correctly utilized, the EP staff should have effectively implemented the changes (timeliness and accuracy criteria) that were introduced in Revision 1 of NEI 99-02 in their assessment of DEP indicator opportunities during the first quarter of 2002.

- (2) The failure to detect the incorrect data on the Emergency Notification Forms during the validation process is a result of corrective action 0100941E not being implemented as originally written.**

Based on records review and discussion with cognizant licensee staff, the RCE team determined that the original intent of corrective action C-PAL-01-00941E was to require "PI Data Owners" to develop guidance on how to collect and validate records associated with PI opportunities. However, this intent was revised to allow the individual departments having PI responsibilities the option of developing such guidance. The RCE team determined that some departments then developed additional guidance on PI data collection, while other departments decided that no additional guidance was needed. The team also determined that none of the relevant departments developed PI data validation guidance in response to corrective action C-PAL-01-00941E.

#### Contributing Causes

**(1) The Emergency Notification Form is poorly human factored.**

The RCE team noted that the Emergency Notification Form was a form provided by the State of Michigan to all operating power reactor licensees within the State. As a result, a licensee could not unilaterally revise this form. The inspectors noted that this multi-page form was used for both initial and periodic follow-up emergency notification messages. The RCE team reasonably concluded that the proceduralized form had several human factors concerns, including its organization and small lettering. The team noted that a simplified notification form was being developed by the State of Michigan in coordination with relevant power reactor licensees.

**(2) The effectiveness review for C-PAL-01-00941 did not evaluate raw data or review the intent of alternative corrective actions 01-00941G through 01-00941O.**

The RCE team verified that an effectiveness review was required and was performed per corrective action C-PAL-01-00941F. The team noted that this review was limited to determining whether any incorrect PI data had been submitted to NRC and that it did not also involve an assessment of the adequacy of the "PI Data Owners'" current PI records collection and PI data validation guidance. The RCE team also concluded that the intent of corrective actions C-PAL 01-00941G thru 01-00941O, which were assigned to each "PI Data Owner", was revised from requiring that they develop additional PI data validation guidance to letting them decide if such additional guidance was needed to supplement the information in Administrative Procedure 3.09.

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

The inspectors concluded that the licensee's RCE team identified a number of prior opportunities for the licensee identifying and correcting errors in its processes for assessing PI data prior to its data submittals to NRC. For example, an earlier RCE report for C-PAL-01-00941, dated March 2001,

identified six instances since January 2000 of licensee staff misreporting PI data to the NRC. The three emergency preparedness PI were associated with three of these six instances. The six instances were considered to be minor discrepancies in accordance with the criteria in NRC's IP 71151 and were entered into the licensee's corrective action program for resolution.

The RCE for C-PAL-02-02177 adequately noted that some planned corrective actions associated with the earlier RCE for C-PAL-01-00941 were altered due to management decisions. For example, corrective action C-PAL-01-0100941E, which involved revising the site's Administrative Procedure 3.09 that encompassed PI data collection, review, and reporting, was "closed" in favor of broader, alternate corrective actions to prevent recurrence. The RCE team also identified that corrective actions C-PAL-01-00941 G through O were altered by making it an option, rather than a requirement, for personnel responsible for collecting and assessing PI data ("PI Data Owners") to develop guidance on how to validate their PI records to supplement the information contained in Administrative Procedure 3.09. This procedure addressed such topics as assignments of responsibilities, records gathering, records retention, and the preparation of PI submittals to NRC.

The inspectors determined that Revision 0 of Administrative Procedure 3.09 and the EP staff's desktop PI guidance were issued in July 2000, although Revision 0 of NEI 99-02 became effective in April 2000 to replace draft Revision D. The RCE for C-PAL-01-00941 also indicated that "PI Data Owners" were not given training on Administrative Procedure 3.09 or Draft Revision D of NEI 99-02. Instead, the RCE indicated that the "PI Data Owners" were informed of the issuance of this administrative procedure by email or by telephone, while Nuclear Oversight staff completed a surveillance in early 2000 that concluded that the "PI Data Owners" were sufficiently knowledgeable of Draft Revision D of NEI 99-02 and understood the importance of providing accurate PI data to NRC. The inspectors noted that Revision 7 of Administrative Procedure 3.09 and Revision 10 of the EP staff's desktop guide for assessing PI opportunities were issued in January 2003, which indicated that the licensee had identified multiple reasons to revise both documents since July 2000.

The inspectors noted that the aforementioned Nuclear Oversight surveillance listed eight recommendations that included: improvements to the draft of Administrative Procedure 3.09; training to "PI Data Owners" on the approved version of this procedure; selection and training of alternate "PI Data Owners"; and communication on the importance of accurate PI data reporting. However, none of these recommendations required a response.

The licensee's RCE team also identified C-PAL-01-03058, which resulted from the critique of a November 2001 drill. This condition report indicated that errors were identified in several completed follow-up notification forms that were prepared by TSC and EOF staffs to simulated State and county officials. Based on a records review of a resulting training session and discussion with cognizant EP staff, the inspectors determined that this training session's target audience was relevant TSC and EOF staffs and not also Control Room personnel.

The RCE for C-PAL-02-02177 also identified several other instances of the plant's corrective action program being used in 2001 and 2002 as a result of several EP drills' critique concerns on event classification, event notification, and release status decisions, whether or not these training activities were pre-designated PI opportunities.

In August 2002, Nuclear Oversight staff issued a report on their assessment of some activities of various functional groups during the second quarter of 2002. With respect to EP program activities, this assessment included observations of two drills in May 2002 and a sample of the data collection and validation processes for two of the three PI. However, the DEP indicator was not among the PI sample chosen by Nuclear Oversight staff.

In summary, the inspectors concluded that the licensee had a number of prior opportunities to determine whether its PI assessment processes were consistent with the relevant revision of the NEI 99-02 document.

- d. *Determine that the root cause evaluation included consideration of potential common cause(s) and extent of condition of the problem.*

The RCE team conducted a common cause evaluation by determining that a notification form accuracy concern apparently existed at two of the other five NMC-operated power reactor sites since mid-2001. The concern involved an inconsistency in marking State/county notification forms, which were completed during licensed operator training sessions, to indicate whether or not the form was associated with a drill. The team correctly concluded that this concern did not involve DEP indicator opportunities at the Prairie Island Plant. However, the team concluded that the concern did involve DEP indicator opportunities at the Duane Arnold Energy Center.

As summarized in Subsection 02.1.c, Attachment 4 to the RCE for C-PAL-02-02177 provided NMC's position, as well as completed and planned actions, regarding the inconsistent marking of notification forms for the time period from July 2001 through June 2002. During a baseline EP inspection at the Duane Arnold site in October 2002 (NRC Inspection Report 50-331/02-12(DRS)), NRC essentially verified that RCE team's conclusion that the same type of DEP indicator accuracy concern existed at that site as was identified during the June baseline EP at the Palisades Plant.

Pending resolution of the licensee's planned corrective actions, which involved submitting a Frequently Asked Question and proposed response to the NEI Safety Performance Assessment Task Force for subsequent assessment by NRC Headquarters staff, the aforementioned baseline EP inspection at the Duane Arnold site resulted in the identification of an URI analogous to that in the Palisades Plant's baseline EP Inspection Report 50-255/02-06(DRS).

The RCE team performed an extent of condition assessment by reviewing the records of all DEP opportunities from July 2001, which was the effective date of Revision 1 of the NEI 99-02 document that introduced timeliness and accuracy

criteria for notification forms, through June 2002. No forms, besides those identified by NRC during the June 2002 baseline inspection, were identified that did not indicate that the form was associated with a drill. The RCE identified several notification forms having an approval time prior to the emergency declaration time, as was identified by the inspectors during the June 2002 baseline inspection and documented in Inspection Report 50-255/02-06(DRS). The RCE team correctly concluded that this type of error did not represent an unsuccessful DEP opportunity and was likely due to the format of the notification form. The team reasonably concluded that this type of error should be eliminated by the implementation of a revised notification form in Summer 2002.

The RCE team's extent of condition assessment also included records review of three non-EP indicators for time periods ranging from three to six months in the first half of 2002, as well as the ERO indicator for portions of 2001 and 2002. No discrepancies were identified.

Based on the above, the inspectors concluded that the licensee conducted an adequate extent of condition evaluation.

### 02.3 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.*

The inspectors verified that the licensee implemented a number of corrective actions associated with its identified root causes and contributing causes. The following corrective actions were either completed or were in progress:

- (1) The Operations Superintendent issued a memorandum, dated June 7, 2002, to all Shift Supervisors emphasizing the need to accurately complete the Emergency Notification Forms to State and county officials. Shift Supervisors were instructed to mark these forms to indicate that a drill was occurring whenever the forms were not completed as a result of an actual emergency declaration, and to complete the form's approval block only after completing the other applicable items on the form.
- (2) On June 9, 2002, the Training Department Manager issued an email to department personnel to inform them of the aforementioned expectations contained in the Operations Superintendent's memorandum. The email also indicated that a RCE was being initiated in response to NRC's concerns on the accuracy of the reported DEP indicator data for the first quarter of 2002.
- (3) A relevant CRS training objective was adequately reworded in accordance with the guidance of NEI 99-02 to clarify the time limit for making an emergency declaration. This guidance was also adequately included in the associated Revision 8 of Lesson Plan N00113.

- (4) The DEP opportunities' records were reassessed and the results were resubmitted to NRC for the first quarter of 2002.
- (5) Corrective actions C-PAL-02-02177 B through H were issued to require each organization having responsibility for PI data to develop adequate guidance on how to collect, validate, and approve these data. The inspectors determined that Revision 6 of Administrative Procedure 3.09 included expanded guidance on collecting and validating records of the three PI for the EP functional area.
- (6) Revision 13 of Lesson Plan N00109 was issued to address the revised Emergency Notification Form that was developed by State officials in coordination with Michigan's power reactor licensees.
- (7) Training was then provided to all ERO members who would be responsible for completing or approving the revised Emergency Notification Form.
- (8) Emergency implementing procedure EI-3 was acceptably revised in September 2002 to incorporate the revised Emergency Notification Form.
- (9) Proceduralized guidance and training materials were reassessed regarding what constituted a "release in progress." Proceduralized instructions for completing the revised Emergency Notification Form included an adequate interpretation of regulatory guidance on a "release in progress."
- (10) The "Palisades Nuclear Plant Change Management Handbook" was issued. The handbook was in its second revision at the time of this supplemental inspection.

The inspectors concluded that these corrective actions were appropriate to address the root causes and contributing causes and to prevent recurrence.

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

The licensee implemented the prompt and longer-term corrective actions as described in Section 02.3.a of this Inspection Report. The inspectors concluded that these actions were acceptably prioritized and included adequate consideration of their risk significance and regulatory compliance.

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

The licensee developed a schedule for the implementation of its corrective actions in its RCE for C-PAL-02-02177. Each corrective action was assigned an owner. The inspectors determined that corrective actions were generally



completed as scheduled and that any extended completion dates seemed reasonable.

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

In January 2003, an effectiveness review on the RCE for C-PAL-02-02177 was completed. This review concluded that EP staff had developed adequate instructions for collecting and validating data for the three relevant PI. The inspectors determined that such guidance was incorporated in revisions to Administrative Procedure 3.09 and the EP staff's desktop guide for assessing PI opportunities. The effectiveness review also included an evaluation of the EP staff's validation of "raw data" records of their three PI for the fourth quarter of 2002. No discrepancies were identified in this evaluation.

Subsequent to the issuance of its RCE, the licensee initiated a "Drill/Exercise Performance Improvement Plan" that was developed in accordance with its change management handbook. This overall goal was to increase the percentage of successful DEP indicator opportunities by the end of 2003. The plan included quarterly goals and provisions for communicating progress and other relevant information and to senior management and other stakeholders using such mechanisms as meetings and the licensed operators' newsletter.

03 Miscellaneous Issues

.1 Unresolved Item (URI) No. 50-255/02-06-01

During a baseline emergency preparedness inspection conducted in June 2002, the NRC identified an URI for the licensee's apparent failure to assess its first quarter 2002 DEP indicator opportunities per the accuracy criteria of Revision 1 of NEI 99-02, such that this PI could decline from the licensee response (Green) band into the regulatory performance (White) band. The licensee reassessed its DEP opportunities and determined that this PI declined into the White band at the end of the first quarter of 2002 before rising into the Green band at the end of the second quarter of 2002. The licensee also completed a RCE that adequately identified the causes of its failure to adequately critique its DEP indicator opportunities during the relevant time period. Consequently this URI is closed.

.2 Non-Cited Violation (NCV) 50-255/03-03-01

As a result of the RCE for C-PAL-02-02177, the licensee initiated multiple corrective actions to prevent recurrence of the failure to adequately critique its DEP indicator opportunities during CRS training sessions. Consequently, the NCV of the 10 CFR 50.47(b)(14) requirement is closed.

04 Exit Meeting Summary

On February 7, 2003, the inspectors presented the preliminary inspection results to Mr. D. Cooper and other members of the Palisades Plant management and staff. The licensee acknowledged the information presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

## KEY POINTS OF CONTACT

### Nuclear Management Company

T. Blake, Emergency Planning Manager  
N. Brott, Emergency Planning Coordinator  
T. Brown, Training Manager  
D. Cooper, Site Vice President  
B. Dotson, Licensing Analyst  
P. Harden, Engineering Director  
N. Haskell, Nuclear Oversight Manager  
D. Malone, Plant General Manager  
M. Moore, Nuclear Oversight Assessor  
T. O'Leary, Business Support Manager  
G. Packard, Operations Manager  
B. Taylor, Emergency Planning Coordinator  
M. Vonk, Corporate Emergency Planner

### U.S. Nuclear Regulatory Commission

R. Caniano, Deputy Director, Division of Reactor Safety  
R. Jickling, Emergency Preparedness Inspector  
R. Krsek, Resident Inspector  
H. Peterson, Acting Chief, Plant Support Branch  
T. Ploski, Senior Emergency Preparedness Inspector

## LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

### Opened

50-255/03-03-01	NCV	Failure to critique per 10 CFR 50.47 (b)(14) two instances in the first quarter of 2002 as being unsuccessful DEP performance indicator opportunities (Section 02.1.c).
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### Closed

50-255/02-02-01	URI	Reassess the accuracy of completed notification message forms and, as needed, resubmit revised DEP indicator data to NRC (Section 03.1).
50-255/03-03-01	NCV	Failure to critique per 10 CFR 50.47 (b)(14) two instances in the first quarter of 2002 as being unsuccessful DEP performance indicator opportunities (Section 02.1.c).

## LIST OF DOCUMENTS REVIEWED

### 02    Evaluation of Inspection Requirements

Root Cause Evaluation for C-PAL-02-02177; Discrepancies on Completed Emergency Planning Notification Forms Could Impact NRC Performance Indicator Data; dated July 10, 2002

Root Cause Evaluation for C-PAL-01-00941; Third Quarter 2000 Drill/Exercise Performance Indicator Reported to NRC in Error; dated March 25, 2001

Palisades Nuclear Plant Change Management Handbook; Revision 2

Palisades Nuclear Plant Drill/Exercise Performance Improvement Plan; undated

Administrative Procedure 3.09; Data Collection, Review, and Reporting for NRC Performance Indicator Program; Revisions 6 and 7

Emergency Preparedness Regulatory Assessment Performance Indicator Guidelines; Revision 10

Surveillance S-00-01; NRC Performance Indicators; dated January 31, 2000

C-PAL-0103058; Errors and Omissions on Notification Forms During November 2001 Drill

Nuclear Oversight Second Quarter 2002 Assessment Report for Palisades; dated August 19, 2002

Memorandum from G. Packard to Senior Reactor Operators; Emergency Notification Forms Expectations; dated June 7, 2002

E-mail from E. Bogue to Training Department Staff; Emergency Preparedness Update; dated June 9, 2002

EI-3; Communications and Notifications; Revision 19

Lesson Plan N00109; Emergency Communications-Plant Emergency Notifications; Revision 13

Lesson Plan N00113; Emergency Action Levels; Revision 8

Sample of DEP Opportunities' Records; April through December 2002

Palisades Emergency Planning Tabletop Discussion; Copy of Slides and Attendance Sheets; dated November 7, 2001

## LIST OF ACRONYMS USED

C-PAL	Condition Report - Palisades
CRS	Control Room Simulator
DEP	Drill and Exercise Performance
EI	Emergency Implementing (procedure)
EOF	Emergency Operations Facility
EP	Emergency Preparedness
ERO	Emergency Response Organization
IMC	Inspection Manual Chapter
IP	Inspection Procedure
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NMC	Nuclear Management Company
NRC	Nuclear Regulatory Commission
PI	Performance Indicator
RCE	Root Cause Evaluation
TSC	Technical Support Center
URI	Unresolved Item