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**POWERING
MICHIGAN'S PROGRESS**

Palisades Nuclear Plant: 27780 Blue Star Memorial Highway, Covert, MI 49043

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DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT
REPLY TO INSPECTION FOLLOWUP ITEMS AND WEAKNESSES IN THE PALISADES EMERGENCY
OPERATING PROCEDURES PROGRAM - INSPECTION REPORT 94013

NRC Inspection Report No. 94013, dated September 30, 1994, documented the results of a special inspection conducted from August 22, 1994 to August 26, 1994. The inspection focused on our emergency operating procedures (EOPs) and the EOP Program. The inspection report identified one apparent violation, two inspection followup items and three program weaknesses. The reply to the violation was submitted on October 28, 1994. The reply to the inspection followup items is included as Attachment 1 to this letter. The reply to the weaknesses is included as Attachment 2.

SUMMARY OF COMMITMENTS

This letter contains three new commitments identified below.

1. Revise Administrative Procedure 4.06, "Emergency Operating Procedure Development and Implementation," by 2/28/95, to implement the following enhancements:
 - a. Require safety reviews for EOP Basis Document revisions;
 - b. Properly describe the requirements for placing equipment location information within EOP Procedures;
 - c. Properly describe the requirements for component identification in EOP steps;
 - d. Require a second review of editorial revisions to EOP Procedures;
 - e. Include the definition of a "safety significant deviation" from the Owners Group Emergency Procedures Guidelines, CEN-152.

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2. Review the Owners Group Emergency Procedures Guidelines, CEN-152, EOPs, and EOP Basis Documents and create a document that will provide a cross reference between each CEN-152 step and the EOP steps. This action will provide a review of CEN-152 to identify any further inadvertent omissions in our EOPs, as well as create a useful tool for maintenance of CEN-152 guidelines during any future EOP revisions. This action will be completed by 12/15/95.

3. Review a representative sample of the EOPs to verify that the procedure referencing requirements of Procedure 4.06 are properly implemented. This review is being completed in conjunction with the EOP procedure review associated with the Notice of Violation, and will be completed by 1/31/95.



Kurt M. Haas
Plant Safety and Licensing Director

CC Administrator, Region III, USNRC
NRC Resident Inspector - Palisades

Attachments

ATTACHMENT 1

**Consumers Power Company
Palisades Plant
Docket 50-255**

**REPLY TO INSPECTION FOLLOWUP ITEMS FROM
NRC INSPECTION REPORT 94013**

NRC INSPECTION FOLLOWUP ITEM 94013-01, WEAKNESSES IN EOP BASIS DOCUMENTS

A. FAILURE TO ENSURE THAT OWNERS GROUP EMERGENCY PROCEDURES GUIDELINES, CEN-152, WERE PROPERLY INCORPORATED INTO PALISADES EOPs

Although the basis documents provided rationale for specific EOP steps, the basis documents did not provide explicit documentation of how specific CEN-152 steps were incorporated into plant procedures. Consequently, the basis documents did not ensure all CEN-152 guidance was either incorporated into plant procedures or justified with appropriate deviation documentation. Two examples were identified where CEN-152 steps were not appropriately incorporated into EOP procedures.

B. FAILURE TO IDENTIFY ERRORS IN PALISADES BASIS DOCUMENTS DUE TO INADEQUATE REVIEWS

The basis documents received only a minimal level of review. Although the basis documents were the only source of information for deviations taken from CEN-152, the basis documents did not receive an onsite safety review. Palisades initiated Condition Report C-PAL-94-0709 to resolve this concern. Two examples were identified where the basis document information was in error. These errors should have been identified and corrected through the EOP program review efforts.

C. FAILURE TO DEFINE WHAT CONSTITUTES A SAFETY SIGNIFICANT DEVIATION FROM THE OWNERS GROUP EMERGENCY PROCEDURES GUIDELINES, CEN-152

Attachment 1 of the Basis Document for EOP 1.0 provided a list of safety significant deviations from CEN-152 with technical justifications. However, Palisades did not define what constituted a safety significant deviation. Consequently, it was possible to introduce a significant deviation without adequate management review because the originator did not consider the deviation significant. No specific examples were provided.

D. FAILURE TO PROVIDE A CROSS REFERENCING DOCUMENT BETWEEN THE OWNERS GROUP EMERGENCY PROCEDURES GUIDELINES, CEN-152, AND PALISADES EOPs

The basis documents did not provide an easily reviewed translation of how CEN-152 steps were incorporated into EOPs. Consequently, it was difficult for anyone (such as NRC, the quality assurance organization, or even procedure writers) to perform a review to ensure CEN-152 steps were incorporated appropriately. In addition, such review is necessary during the revision process to ensure technical integrity is maintained.

CPCO EVALUATION

- A. FAILURE TO ENSURE THAT OWNERS GROUP EMERGENCY PROCEDURES GUIDELINES, CEN-152, WERE PROPERLY INCORPORATED INTO PALISADES EOPs, AND
- D. FAILURE TO PROVIDE A CROSS REFERENCING DOCUMENT BETWEEN THE OWNERS GROUP EMERGENCY PROCEDURES GUIDELINES, CEN-152, AND PALISADES EOPs

Palisades agrees that the present EOP Program has not adequately ensured that all steps in CEN-152 have been properly incorporated into the EOPs or sufficient justification was generated to exclude the step from the EOPs. The two specific examples identified in the report were promptly dispositioned during the inspection, however further actions are required to upgrade the EOP program in this area.

CORRECTIVE ACTION: Review CEN-152, EOPs, and EOP Basis Documents and create a document that will provide a cross reference between each CEN-152 step and applicable EOP steps. This action will provide a review to identify any further omissions that might exist, and will create a tool to allow convenient monitoring and maintenance of CEN-152 steps during future EOP revisions. The document will be maintained by the EOP Program coordinator and will be revised as necessary during EOP revisions. The completion date for this action is 12/15/95. This date is appropriate based on the magnitude of the activity, as well as the perceived minor significance of the identified omissions from the report and any future omissions that could be discovered.

- B. FAILURE TO IDENTIFY ERRORS IN PALISADES BASIS DOCUMENTS DUE TO INADEQUATE REVIEWS

Palisades believes that the EOP Program did ensure that proper reviews were obtained for EOP Basis Document revisions. Palisades administrative procedures did not require a safety review for revisions to EOP Basis Documents because a Basis Document does not directly impact plant operations. Revisions to EOP Basis Documents were at all times reviewed by qualified personnel familiar with the EOPs, CEN-152, and the requirements to technically justify "safety significant deviations." Palisades does agree that performance of safety reviews during EOP Basis Document revisions will provide additional assurance that safety significant deviations will not be introduced.

CORRECTIVE ACTION: Revise Administrative Procedure 4.06 to require safety reviews for Basis Document revisions. This action will be completed during the revision presently in progress, which will be done by 2/28/95.

C. FAILURE TO DEFINE WHAT CONSTITUTES A "SAFETY SIGNIFICANT DEVIATION" FROM THE OWNERS GROUP EMERGENCY PROCEDURES GUIDELINES, CEN-152

Palisades agrees that the proper definition of a "safety significant deviation" was not provided in Administrative Procedure 4.06. However, plant personnel responsible for EOP procedures were aware that the guidelines existed in CEN-152. A "safety significant deviation" in the context of CEN-152 is a change which affects the basic intent of the Emergency Procedure Guidelines by altering one or more of the following elements, (reference CEN-152, revision 03, section 13.3):

- * Emergency Procedure Guideline System Structure
- * Event Strategy
- * Safety Function Concept
- * Safety Function Status Checks
- * Success Paths

The omission of this definition from Administrative procedure 4.06 is a programmatic weakness.

CORRECTIVE ACTION: Revise Administrative Procedure 4.06 to include the definition of a "safety significant deviation". This action will be completed during the revision presently in progress, which will be done by 2/28/95.

NRC INSPECTION FOLLOWUP ITEM 94013-02, WEAKNESSES IN EOP WRITERS GUIDE,

A. FAILURE TO PROVIDE CRITERIA TO ENSURE THAT CONSISTENT EQUIPMENT LOCATION INFORMATION IS CONTAINED IN PALISADES EOPs

Administrative Procedure 4.06, "Emergency Operating Procedure Development and Implementation," did not provide objective criteria for when location information was required or to what level of detail. Consequently, considerable variation in when location information was identified by procedures and level of detail was noted by the inspectors. Examples were provided for the following items:

1. Location information was not consistently provided for activities to be performed locally in the plant.
2. Variation existed in how location information was presented.
3. Considerable variation existed in what level of detail was presented for location information
4. Height above the floor was generally not provided in procedures
5. Procedure 4.06 did not require panels, for which components were to be manipulated inside, to be mentioned in EOPs.

B. FAILURE TO PROVIDE ADEQUATE GUIDANCE TO ENSURE THAT CONSISTENT IDENTIFICATION OF COMPONENTS IS CONTAINED IN PALISADES EOPs

Procedure 4.06 did not provide sufficiently restrictive guidance to ensure consistent identification of components. Consequently, identification of components in procedures was not always consistent nor did it always match in plant labeling. Examples were provided for the following items:

1. Attachment 1 to Procedure 4.06 did not explicitly require both the component number and component description to be used for components.
2. Procedure 4.06 did not require component descriptions to match (or even resemble) plant labeling.

C. FAILURE TO PROVIDE ADEQUATE REFERENCE TO STEPS IN OTHER PLANT PROCEDURES TO ENSURE APPROPRIATE ACTIONS ARE EASILY LOCATED

Section 6.3.3.a of Procedure 4.06 provided guidance for referencing other plant procedures. However, Section 6.3.3.a did not require the specific sections of procedures to be referenced. An example was provided which identified a case where determining the applicable section in a procedure referenced by an EOP would have been potentially difficult.

CPCO EVALUATIONA. FAILURE TO PROVIDE CRITERIA TO ENSURE THAT CONSISTENT EQUIPMENT LOCATION INFORMATION IS CONTAINED IN PALISADES EOPs

Palisades agrees that the EOP Program did not ensure that Administrative Procedure 4.06 provided an adequate description of the requirements for placing equipment location information within EOP procedures. The procedure required that the location of "hard to find or infrequently used equipment" be provided with the procedure step. The examples from the inspection report indicate that this guidance is not sufficient. Also, the level of detail required for equipment location information was not sufficient to ensure that appropriate building elevation, equipment elevation with respect to the floor, and location of equipment within panels was sufficiently described in all cases.

CORRECTIVE ACTION: Revise Administrative Procedure 4.06 to properly describe the requirements for placing equipment location information within EOP procedures. The requirements will ensure that location descriptions include location with respect to major pieces of equipment, or building location, and the approximate height of the component if it is not in the normal line of sight. Also, panel numbers will be provided for equipment located within a panel. This action will be completed during the revision presently in progress, which will be done by 2/28/95. The EOPs themselves will be upgraded with the enhanced location information during the periodic procedure reviews that occur at least within a two year interval.

B. FAILURE TO PROVIDE ADEQUATE GUIDANCE TO ENSURE THAT CONSISTENT IDENTIFICATION OF COMPONENTS IS CONTAINED IN PALISADES EOPs

Palisades agrees that the EOP Program did not ensure that Administrative Procedure 4.06 provided consistent requirements for the identification of component numbers and component names. Procedure 4.06 did not provide a consistent effective approach to eliminate the existing conflicting requirements for component identification at Palisades. The conflicting requirements that need to be addressed are; the guidance to use the equipment database descriptions from Administrative Procedure 10.51, "Writer's Guideline for Procedures", the guidance to use operations language in 4.06, Attachment 1, and the actual component description contained on the tag attached to the component.

CORRECTIVE ACTION: Revise Administrative Procedure 4.06 to properly describe the requirements for component identification in EOP steps. The procedure will be changed to specify that the wording in the EOP procedures will be comparable with the wording on the operations system checklists or Attachment 1 of Procedure 4.06. This action will be completed during the revision presently in progress, which will be done by 2/28/95. The EOPs themselves will be upgraded with the enhanced identification information during the periodic procedure reviews that occur at least within a two year interval.

C. FAILURE TO PROVIDE ADEQUATE REFERENCE TO STEPS IN OTHER PLANT PROCEDURES TO ENSURE APPROPRIATE ACTIONS ARE EASILY LOCATED

Palisades agrees that for the example identified in the inspection report that inadequate guidance was provided to locate the specific procedure steps that were in another referenced operations procedure. In this particular example, the requirements that exist in Procedure 4.06, for an EOP to reference the performance of an activity in another procedure, were not properly implemented. Procedure 4.06 requires an EOP step to only reference another procedures' title for performance of an activity that is identified in that procedures' table of contents. Otherwise, the specific step number in the other procedure needs to be identified in the EOP to facilitate location of the activity. In this particular example, the requirements that exist in Procedure 4.06 for referencing steps in other procedures were not properly implemented. The requirements in Procedure 4.06 appear to be proper in that they avoid the requirement to always identify the specific procedure step number in a referenced procedure. This requirement could lead to inaccurate procedural referencing as other procedures step numbers could change without an update to the EOP procedure.

CORRECTIVE ACTION: A representative sample of the EOPs will be reviewed to verify that the procedure referencing requirements of Procedure 4.06 are properly implemented. This review is being completed in conjunction with the EOP procedure review associated with the Notice of Violation, Condition Report Action C-PAL-94-0705B and will be completed by 1/31/95.

ATTACHMENT 2

**Consumers Power Company
Palisades Plant
Docket 50-255**

**REPLY TO WEAKNESSES FROM
NRC INSPECTION REPORT 94013**

REPLY TO WEAKNESSES IDENTIFIED IN NRC INSPECTION REPORT

WEAKNESS IN PALISADES EOP VERIFICATION PROCESS

The Inspectors identified a weakness in that section 6.8.7 of Procedure 4.06 permitted editorial changes to be made to EOPs without requiring any verification activities. Section 8.1 of Procedure 10.41, " Procedure Initiation and Revision," provided the definition of what constituted an editorial change. Format changes, clarification of unclear text, and poor human factors were among the changes defined as editorial. Because of the broad definition of editorial changes, the Inspectors considered the potential to exist for introducing errors during the EOP revision process which could go undetected due to lack of verification.

PALISADES REPLY

Palisades agrees that the EOP Program did not adequately provide a thorough verification process during EOP editorial revisions.

CORRECTIVE ACTION

Revise Administrative Procedure 4.06 to add a second review of editorial changes to ensure that the criteria for an editorial change is met and to ensure that the change is properly implemented. This action will be completed during the revision presently in progress, which will be done by 2/28/95.

WEAKNESS IN PALISADES EOP VALIDATION PROCESS

The Inspectors identified a weakness in that Procedure 4.06 did not provide objective criteria for when validation needed to be performed as a result of a revision. The Inspectors noted that no formal validation had been performed for the July, 1990, revision of procedures EOP 5.0 and EOP 9.0 even though location information had been relocated in a different format during that revision. A human factors review had been performed for that revision, but the extent and quality of review could not be ascertained due to the lack of documented review comments. Given that location information can significantly affect how a procedure is used by operators, the Inspectors expected that a formal validation would have been performed.

PALISADES REPLY

Palisades believes that adequate guidance is identified in Procedure 4.06 to determine when a validation is required for a procedure revision. Presently Procedure 4.06 requires a validation for those areas changed by the procedure, or if the changes were significant, then a complete EOP procedure validation would be required. Also, changes that result from human factors improvements, improved clarity, or a slight reorganization of steps generally will not require validation. As mentioned above, Procedure 4.06 will be revised to provide a second review of editorial changes to ensure minor changes are

implemented properly. A formal validation of all minor changes does not appear to be necessary.

CORRECTIVE ACTION

No changes are deemed necessary for the validation requirements described in Administrative Procedure 4.06.

WEAKNESS IN PALISADES SELF-ASSESSMENT OF EOP PROGRAM

Palisades self-assessment of their EOP Procedures and programs was minimal. What few surveillances which had been performed concentrated on training. Training of auxiliary operators was the subject of a violation from Inspection Report 255/89019. Few other areas identified as weak from the same inspection received any assessment. For example, no effort had been performed to assess the technical adequacy of the EOPs. Palisades recognized that assessment efforts in this area were weak and had an audit scheduled to assess EOPs. Self-assessment weaknesses will be tracked by Inspection Followup Item 255/94014-74.

PALISADES REPLY

Palisades agrees that self-assessment was minimal in the EOP area. The cause was inadequate staffing in the Operations Technical Support Group. A contributor to the problem was the lack of an Operations departmental plan or objective to perform self-assessments.

The weakness in EOP oversight by the Nuclear Performance Assessment Department (NPAD) was considered to be an example of a general weakness in the assessment function. The Palisades Performance Enhancement Program Objective 5.3, "Improve the Effectiveness of the Assessment Function," is directed at correcting this weakness.

CORRECTIVE ACTION

The following actions have been taken to prevent recurrence;

1. The off-shift Operations Department Technical Support group staffing has been doubled. This will reduce the collateral duties of EOP development personnel and allow adequate time for program self-assessment planning.
2. The Operations Department Master Action Plan includes an objective to complete department self-assessments, Objective 5.1 "Establish Critical Self-Assessment as a Norm for Operations Department."
3. The NPAD Department Master Action Plan addresses the assessment weakness through an "Integrated Assessment Plan." This plan was designed to address the long range required assessment activities, as well as emergent issues.