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June 3, 1985

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DOCKET 50-255 -- LICENSE DPR-20 - PALISADES PLANT -
RESPONSE TO INSPECTION REPORT 50-255/85003

Nine items of noncompliance were identified in Inspection Report 50-255/85003 dated April 17, 1985. The due date for our response to these items was extended to June 3, 1985, per a telephone conversation between respective members of our staffs on May 10, 1985.

The cover letter to IE Inspection Report 85-003 requested that, in addition to responding to the identified violations, a description be included of the actions provided or planned to address improvements in the Maintenance area. Any milestones provided to measure progress are also to be presented.

As provided in the response to the NRC SALP 5 Report, dated March 14, 1985, as supplemented on May 16, 1985 and May 22, 1985, significant actions were proposed to address concerns associated with the maintenance backlog and the condition of plant equipment. The activities initiated include items such as:

1. The Maintenance and Engineering Departments were combined in order to implement the "System Engineer" concept, to closely align it with Maintenance activities and to provide more engineering support for solving Maintenance problems.
2. A walkdown of plant systems in order to identify equipment deficiencies and provide a current baseline.
3. A concentrated effort to work off the present backlog of maintenance items.
4. An indepth study and overhaul of the Maintenance Order System to streamline the process.

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In support of these activities, two major programs were initiated. These programs were the Maintenance Order Task Force and the System Assessment Program.

In December, 1984, the Palisades Plant General Manager authorized establishment of a task force to review the entire Maintenance Administration Program. The task force was directed to look at the Maintenance Order process from start to finish. Its objective was to define problem areas and offer recommendations to eliminate unnecessary controls, improve departmental interfaces and streamline the process.

During the course of its work, the Maintenance Administration Task Force interviewed 72 Consumers Power employees involved in the maintenance process. Many of the interviews resulted in followup question-and-answer periods with other plant personnel which in turn opened new areas of interest. Administrative Procedures and other controlling documents were reviewed and Maintenance Order data was studied.

The System Assessment Program (SAP) was developed to respond to a recent INPO evaluation which identified deficient items in the plant that were not in the current Maintenance Order System. The objective of the System Assessment Program was to perform an overall mechanical assessment of the plant to ascertain the true status of 38 systems. The SAP was implemented as a joint effort of the Engineering and Maintenance and Plant Operations Departments with teams comprised of a Test Engineer, a Plant Mechanical Maintenance Engineer and an Auxiliary Operator. The assessment of the systems included the following:

1. A walkdown of each system using that System's P&ID as a guide.
2. Initiation of Maintenance Orders and Engineering Support Requests for any deficient mechanical or I&C items on each system.
3. Review of the Equipment Data Base for completeness.
4. Review of outstanding Facility Changes, Specification Changes and other information pertinent to the systems.
5. Interviews with personnel knowledgeable of the system operation.

The System Assessment Program commenced on January 14, 1985. System walkdowns began on January 17, 1985 and were complete on March 20, 1985.

The objectives that delineate the individual actions necessary to achieve the required improvements are numerous and specific. Computerized tracking was implemented to provide management with an appropriate tool to track these items. Major milestones are difficult to identify in that many individual actions are necessary and each are expected to provide some benefit. The following items have been completed or are planned and, in terms of overall objectives, are considered critical milestones.

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|---|----------------|
| - Implementation of the System Engineer Concept | Complete |
| - System Assessment Program | Complete |
| - Maintenance Order Task Force | Complete |
| - Implementation of the Advanced Maintenance Management System (AMMS) | June, 1985 |
| - Completion of AMMS supporting procedures and training | June, 1985 |
| - Completion of other action items delineated in the Maintenance Administration Task Force Report | December, 1985 |

Achievement of these objectives is expected to improve the administration and performance of plant maintenance. Inherent to these activities is the resolution of concerns addressed in the NRC SALP Report and noted in recent INPO evaluations.

Our response to the items of noncompliance follows:

Noncompliance 50-255/85003-01 (Item 1.)

10CFR50, Appendix B, Criterion XVI, as implemented by Consumers Power Company (CPCo) "Quality Assurance Program for Operational Nuclear Power Plants" (CPC-2A), requires that measures shall be established to ensure that conditions adverse to quality are promptly identified and corrected. Further, CPC-2A, Section 16.2.2 requires that, for conditions noted adverse to quality, appropriate remedial action is taken and corrective action is implemented in a timely manner.

Contrary to the above:

- a. Open Item 255/78-25-01 identified a failure to perform Preventive Maintenance (PM) on magnetic and thermal overload trip devices in the 480 volt switchgear and motor control centers. Interviews with plant personnel and examination of the Periodic Activity Control System disclosed that PM had been performed on only a portion of the 460/480 volt safety-related switchgear and that not all safety-related load centers had been incorporated into the PM program.
- b. Thirteen plant administrative procedures were noted as overdue for biennial review. This situation existed even though: (1) a QA surveillance report in October 1984 had found one procedure overdue and noted 73 other procedures that were due by December 1984; (2) QA department followup in January 1985 found only 38 of the overdue

James G Keppler, Administrator
Palisades Plant
Response to IR 50-255/85003
June 3, 1985

4

procedures had been reviewed; (3) an Audit Finding Report of January 31, 1985 found eight procedures still lacking review.

Response to Item a.

Corrective Action Taken And Results Achieved

The noncompliance was reviewed and determined to be an isolated occurrence of failure to act on a previously identified item.

Corrective Action To Be Taken To Avoid Further Noncompliance

All 480 volt safety-related switchgear and load centers will be incorporated into the Preventive Maintenance Program.

Date When Full Compliance Will Be Achieved

Full compliance will be achieved by July 15, 1985.

Response to Item b.

Corrective Actions Taken And Results Achieved

The required Biennial Review has been completed for twelve of the thirteen identified Administrative Procedures.

Corrective Action To Be Taken To Avoid Further Noncompliance

The biennial review of the remaining procedure will be completed. The Periodic Activity Control System will be utilized to provide early notification of impending biennial reviews. Additionally, this system provides the capability for readily identifying overdue items.

Date When Full Compliance Will Be Achieved

Full compliance will be achieved by July 15, 1985.

Noncompliance 50-255/85003-21 (Item 2.)

10CFR50, Appendix B, Criterion XVI, as implemented by CPC-2A requires that measures shall be established to ensure that conditions adverse to quality are promptly identified and corrected. Further, ANSI N18.7 (1976), "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants", as endorsed by CPC-2A requires that in the case of significant conditions adverse to safety, the measures shall assure that the cause of the condition is determined and corrective action documented.

Contrary to the above, a review of Quality Control Activity Inspection Reports AI-84-05 and AI-84-79 and Quality Assurance Audit Report A-QA-84-6 identified four instances of significant conditions adverse to safety that

were labeled "Observations" instead of "Findings" thus not requiring response or followup to ensure corrective actions. Each instance involved one or more of the following: (1) lack of post maintenance testing, (2) poor housekeeping, and (3) failure to control equipment.

Discussion

Inspections, surveillances, and audits are performed by personnel that have been trained and certified for specific tasks. The training includes a definition and discussion of the criteria for findings and observations. Supervisory review and concurrence is required subsequent to inspection activities. The review is provided to ensure appropriate classification of findings and observations.

Findings and observations have been clearly defined in Nuclear Assurance Department Procedures. A description is provided of the differences in activities used to resolve conditions adverse to quality and "significant" conditions adverse to quality.

Considerable effort has been applied to ensure a consistent and accurate assessment of the significance of problems identified by the Nuclear Assurance organization. Prompt attention and correction of findings has been provided in consideration of this consistent approach.

The examples of improper classification provided in this inspection were reviewed in considerable detail by the Nuclear Assurance Department. The definition and the intent of findings and observations were considered and determined sufficient. Application of these criteria to the "observations" and the circumstances of the deficiencies resulted in a determination that a "significant" condition adverse to quality did not exist.

The classification of identified deficiencies as observations is not intended to imply no action is required. Remedial corrective action is implicit to the definition of observation. Performance of these actions and followup of observations was previously addressed and improved to satisfy a 1984 INPO finding. A periodic review of observations by Quality Assurance and affected Department Managers has been implemented to ensure appropriate and timely action. These activities are considered appropriate to resolve the deficient items identified by Activity Inspections 84-052 and 84-079 and Audit Report A-QA-84-6.

Corrective Actions Taken And Results Achieved

The identified items were reviewed and determined to be appropriately classified as observations.

Corrective Actions To Be Taken To Avoid Further Noncompliance

The current standards and program requirements instituted within the Nuclear Assurance Department are considered adequate. No further action is deemed necessary.

Date When Full Compliance Will Be Achieved

Full compliance has been achieved.

Noncompliance 50-255/85003-03 (Item 3.)

10CFR50, Appendix B, Criterion V, as implemented by CPC-2A, which includes a commitment to ANSI N18.7 (1976), requires that activities affecting quality be prescribed by documented instructions and procedures which include appropriate qualitative and quantitative acceptance criteria and be accomplished in accordance with those instructions and procedures.

Contrary to the above, the following examples of failure to follow procedures were identified:

- a. The licensee failed to accomplish the requirements of Administrative Procedure 5.03 "Preventive Maintenance Program" in that:
 - (1) No machinery history file was being maintained by any of the Maintenance Departments and, therefore, no trending was being performed.
 - (2) Preventive maintenance was not performed within the prescribed frequency.
 - (3) The reasons for failure to perform preventive maintenance on schedule were not being documented and provided to the Maintenance Superintendent.
- b. The licensee failed to accomplish the requirements of Administrative Procedure 4.03 "Equipment Control" in that:
 - (1) Monthly review of the Jumper, Link and Bypass Control Log was not being conducted.
 - (2) Action was not initiated in a timely manner to remove a bypass (e.g., lifted lead) that was no longer needed due to its having become a permanent modification.
 - (3) Formal management action was not taken in a timely manner to permanently modify a system and update the system configuration for a bypass (e.g., lifted lead) that was installed longer than a fuel cycle.

James G Keppler, Administrator
Palisades Plant
Response to IR 50-255/85003
June 3, 1985

7

Response to Item a.

Discussion

The noncompliance was reviewed and certain clarifications were determined to be necessary. Item one implies that no machinery history file was being maintained and therefore no trending was being performed. Administrative Procedure 5.03, "Preventive Maintenance Program", requires that a review of the past 36 months of completed maintenance be performed each 24 months. The reviews are to be performed on a system basis for selected criteria such as excessive maintenance, repeated maintenance, and high parts consumption. Although not presented during the inspection, some system reviews have been performed and are documented within the document control system. In addition maintenance orders are contained in the document control system and provide a machinery history file.

As noted in the inspection, personnel in the Maintenance Departments were unable to discuss the performance of this trending activity. In addition, an evaluation of the completed documents indicates that some improvements are warranted in the trending program.

The remaining two items identified in this violation were reviewed and did occur as stated in the notice. The overdue preventive maintenance was a result of plant conditions preventing the scheduled completion of certain activities. The items should have been rescheduled. Documentation of overdue preventive maintenance by the Planning and Scheduling Department is no longer applicable. The administration of preventive maintenance has been incorporated into the Maintenance Departments.

Corrective Actions Taken And Results Achieved

The violation was reviewed as described above.

Actions To Be Taken To Prevent Further Noncompliance

A review of overdue safety-related preventive maintenance will be performed to determine appropriate completion dates. A method to review and return preventive maintenance for rescheduling will be implemented. Administrative Procedure 5.03 will be reviewed to determine appropriate reporting methods for overdue preventive maintenance. In addition, the trending program, as described above will be clarified for intent and review content. Administrative Procedure 5.03 will be revised to incorporate these improvements.

Date When Full Compliance Will Be Achieved

Full compliance will be achieved by September 30, 1985.

Response to Item b.

Discussion

As noted, the requirement to perform a monthly review of the Jumper, Link and Bypass Control Log was not performed per procedural requirements. The review was inadvertently omitted during a recent revision of the Operations Department internal audit program.

As a result of a 1983 INPO evaluation, formal management action to identify and permanently modify plant systems was initiated. Currently, the referenced bypass has not reached the appropriate administrative condition to allow removal of the item. This item will receive continued attention to ensure completion.

Corrective Actions Taken And Results Achieved

An Engineering Support Request was provided to obtain resolution of this bypass. The Facility Change to allow completion was reviewed by the Plant Review Committee.

A monthly audit of the Jumper, Link and Bypass Control Log has been reinstituted per the requirements of Administrative Procedure 4.03.

Corrective Action To Be Take To Avoid Further Noncompliance

The necessary facility change to allow removal of the referenced bypass will be completed.

Date When Full Compliance Will Be Achieved

Full compliance will be achieved prior to startup from the next refueling outage.

Noncompliance 50-255/85003-05 (Item 4.)

10 CFR 50, Appendix B, Criterion XVI, as implemented by CPC-2A, which includes a commitment to ANSI N18.7 (1976), states, in part, that measures shall be taken to assure conditions adverse to quality are determined and corrective action taken to preclude repetition. Further, Section 5.2.7.1 of ANSI N18.7 (1976) states, in part, the causes of malfunctions shall be promptly determined, evaluated and recorded, and any experience which (sic) malfunctioning equipment and similar components shall be reviewed and evaluated.

Contrary to the above, the inspection identified that the root cause for equipment malfunctions was not being documented.

Discussion

The violation was reviewed and did occur as stated in the notice. The Maintenance Order form indicates the cause of a malfunction and the actions taken to correct the condition are to be recorded. However, procedural requirements were not instituted to require this action. The institution of appropriate requirements will ensure the activity is performed through normal post maintenance reviews and as a result of internal audits.

Corrective Actions Taken And Results Achieved

All maintenance supervisors and planners have been informed of the documentation requirements. Personnel have been instructed to verify that the cause of a malfunction is identified on Maintenance Orders during the required administrative review.

Corrective Action To Be Taken To Avoid Further Noncompliance

Maintenance procedures will be revised to include the requirement to document the cause of malfunctions. A requirement will be provided to verify documentation was completed properly as part of the administrative review of completed maintenance.

Date When Full Compliance Will Be Achieved

Full compliance will be achieved by July 15, 1985.

Noncompliance 50-255/85003-11 (Item 5.)

10 CFR 50, Appendix B, Criterion II, as implemented by CPC-2A, requires that activities affecting quality shall be accomplished under suitably controlled conditions, which include suitable environmental conditions such as cleanliness. Further, Section 5.2.10 of ANSI N18.7(1976), as endorsed by CPC-2A, requires that housekeeping practices shall be utilized; these practices encompass fire protection and prevention, including disposal of combustible material and debris, and measures to ensure that the quality of items is not degraded.

Contrary to the above, the following examples of poor housekeeping practices were observed:

- a. During a tour of Rooms 328 and 332, miscellaneous items and combustible debris were found in Class 1E cable trays and on the floors. Also, ceiling/building joint leaks allowed water to leak onto Class 1E cables and accumulate on floors and hatchways. There were visible indications that these conditions had existed for some time, both in these rooms and others where protective tarps were found to protect pumps and other equipment from leaking water.

- b. During a tour of the Auxiliary Building combustible material, contaminated tools and an aerosol can were found stored in two safety-related electrical cabinets.

Discussion

As a result of the 1984 INPO evaluation of Palisades, the material condition of the plant, housekeeping, and cleanliness were found to require additional attention. Commitments to improve these areas were provided. These commitments included items such as improvement of the follow-up of noted deficiencies, correction of INPO identified deficiencies, and identification of root causes. The corrective actions implemented to reconcile these commitments are continuing toward completion. The specific items noted in the item of noncompliance were not previously identified, but, are examples of deficiencies to be corrected by the outstanding corrective actions.

Corrective Actions Taken And Results Achieved

The deficiencies identified by the inspection have been corrected. Rooms 328 and 332 have been cleared of combustible material and debris. The inappropriate materials were removed from the electrical cabinets. A notice was stenciled on the cabinets to deter the storage of improper materials. An inspection of building roofs was performed by a company representative and a roofing contractor.

As a result of a recently completed corrective action to an INPO commitment, the Plant Facilities Supervisor performs weekly inspection of the plant. Deficiencies are identified and presented to responsible department heads. The deficient items are expected to be resolved on a timely basis.

Corrective Action To Be Taken To Avoid Further Noncompliance

Repair of identified roofing deficiencies will be performed. Inspections by the Plant Facilities Supervisor will be performed and other deficiencies corrected.

Date When Full Compliance Will Be Achieved

Full compliance will be achieved by September 30, 1985.

Noncompliance 50-255/85003-07 (Item 6.)

Technical Specifications, Section 6.8, states in part, "Written procedures are required to be implemented to cover test activities of safety-related equipment."

Contrary to the above, maintenance Order 85-ESS-0042, Calibration of Level Transmitter LT-0437A, required by Technical Specification, Section 3.19.1.a, was accomplished without a procedure.

James G Keppler, Administrator
Palisades Plant
Response to IR 50-255/85003
June 3, 1985

11

Discussion

The violation was reviewed and did occur as stated in the notice. A procedural inadequacy was identified with respect to maintenance of installed plant instrumentation. In addition, the requirements associated with activities within the skills of maintenance personnel was misinterpreted.

Corrective Actions Taken And Results Achieved

The calibration of LT-0437A has been reviewed. The calibration was determined to have been satisfactorily performed without any adverse effects to plant operation. The circumstances of this occurrence has been reviewed with maintenance departments.

Corrective Actions To Be Taken To Avoid Further Noncompliance

Administrative Procedure 5.04, "Control of Installed Plant Instrumentation" will be revised to clarify activities that require a procedure to be utilized.

Date When Full Compliance Will Be Achieved

Full compliance will be achieved by July 15, 1985.

Noncompliance 50-255/85003-02 (Item 7.)

10 CFR 50, Appendix B, Criterion XII, As implemented by CPC-2A, requires that measures be established to assure that measuring and test devices used in activities affecting the quality of safety-related items are properly controlled, calibrated, and adjusted at specific periods to maintain accuracy within specified limits.

Contrary to the above, a significant number of portable measuring and testing devices were improperly controlled. Further, two micrometers with calibrations overdue in excess of two months were checked out for use and were lost.

Discussion

As a result of a 1984 INPO evaluation, control of measuring and testing equipment was identified for improvement. Consolidation of storage areas was determined a plausible method to improve controls. Relocation of storage areas will place the referenced items under improved storage and access control conditions.

Corrective Actions Taken And Results Achieved

A review of measuring and test equipment was performed to identify any similar cases of lost items. One additional item was identified.

James G Keppler, Administrator
Palisades Plant
Response to IR 50-255/85003
June 3, 1985

12

Corrective Actions To Be Taken To Avoid Further Noncompliance

An evaluation will be performed of the prior usage of the lost equipment. Personnel responsible for measuring and test equipment control will be notified of the requirements for timely corrective actions involving overdue items. The equipment currently stored in the Instrumentation and Control Shop and test gauge storage area will be relocated to provide a single issue point.

Date When Full Compliance Will Be Achieved

Notification of personnel responsible for M&TE will be completed by June 30, 1985. Full compliance will be achieved by October 15, 1985.

Noncompliance 50-255/85003-04 (Item 8.)

10CFR 50, Appendix B, Criterion V, as implemented by CPC-2A, requires that procedures shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished. Further, ANSI N18.7(1976), Section 5.2.7, as implemented by CPC-2A, requires that maintenance or modification of equipment shall be prepared and performed in accordance with written procedures, documented instructions, or drawings.

Contrary to the above, the instructions provided in Maintenance Order Nos. 85-ESS-0027, 85-ESS-0011, and 85-CVC-0016, were not of sufficient detail for the type of activities being performed.

Discussion

The specific examples of Maintenance Orders lacking sufficient detail were reviewed. Clarification of the noncompliance item was determined to be necessary.

Maintenance Orders are provided with an equipment number identifying the item to be worked. From the equipment number, a drawing may be identified from the computerized Equipment Data Base. Controlled copies of schematics, wiring diagrams, and vendor manuals are maintained in each section of the maintenance department. These documents are not issued with the Maintenance Orders. Personnel are expected to obtain the appropriate documents from accessible, controlled files maintained in their respective departments. This practice is considered an acceptable method of providing the required drawings. Maintenance Orders 85-ESS-0027 and 85-ESS-0011 are examples of this practice.

As noted in the inspection report, switch contacts were rewired under Maintenance Order 85-ESS-0011. A directive was provided in the work order to repair a temperature switch. Although rewiring was not specifically stated, the activity repaired a previously miswired condition in that incorrect contacts had been utilized. This action corrected an improper condition and was the intended function to be performed as a repair. The maintenance is considered to have been adequately addressed by the written instructions.

The citation regarding Maintenance Order 85-CVC-0016 was reviewed. Prior to the inspection the need for a procedure to perform this item had been identified. Preparation of a procedure had been initiated for this item.

Inadequate instructions for work orders was identified as a concern in a recently completed review of the Maintenance Order System. Actions resulting from this review are expected to improve this area.

Corrective Actions Taken And Results Achieved

The Maintenance Orders described in the Notice of Violation were reviewed. Maintenance Orders 85-ESS-0027 and 85-ESS-0011 were determined to have been of adequate detail for the specified activity.

Corrective Action To Be Taken To Avoid Further Noncompliance

A procedure will be prepared to provide instructions for the replacement of the charging pump discharge accumulator bladder. This activity was the subject of Maintenance Order 85-CVC-0016.

Date When Full Compliance Will Be Achieved

Full compliance will be achieved by October 1, 1985.

Noncompliance 50-255/85003-15 (Item 9.)

10CFR50, Appendix B, Criterion VII, as implemented by CPC-2A, requires that measures shall be established for the identification and control of materials and parts to be used in safety-related equipment to prevent the use of incorrect or defective material, parts, and components. Further, ANSI N45.2.13 (1976), "Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants", as endorsed by CPC-2A requires that procurement documents shall identify any technical requirements of the purchased material, including shelf life.

Contrary to the above, during a tour of storage facilities, the inspectors identified two rubber products stored with no shelf life identified as required. These items had been purchased for initial plant construction and were being controlled under Dummy Purchase Order No. 189. Due to procedural inadequacies that existed at the time the dummy Purchase Order was generated, shelf life was not identified as a requirement.

Discussion

As a result of the 1984 INPO evaluation, certain inadequacies were identified in the Palisades Shelf-Life Management Program. Commitments were provided to improve this program in areas such as identification and correction of deficiencies and improved tracking of shelf-life expiration. Corrective Actions are continuing in each of these areas. The rubber products noted in

James G Keppler, Administrator
Palisades Plant
Response to IR 50-255/85003
June 3, 1985

14

the item of noncompliance are examples of deficiencies that an improved shelf-life program, as recommended by INPO, would have identified.

Corrective Actions Taken And Results Achieved

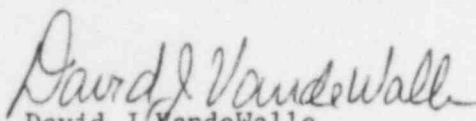
The items procured under Dummy Purchase Order No. 189 have been destroyed. An inspection was performed of all other shelf-life items. Deficient items were segregated and are pending resolution of an appropriate shelf-life.

Corrective Action To Be Taken To Avoid Further Noncompliance

A quarterly inspection will be performed of shelf-life materials. The requirement to perform the inspection will be incorporated into Administrative Procedures.

Date When Full Compliance Will Be Achieved

Full compliance will be achieved by September 1, 1985.


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