

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-255/84-09(DE)

Docket No. 50-255

License No. DPR-20

Licensee: Consumers Power Company
212 West Michigan Avenue
Jackson, MI 49201

Facility Name: Palisades Nuclear Generating Plant

Inspection At: Covert, MI and Jackson, MI

Inspection Conducted: April 25 through May 17, 1984

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|--|------------------------|
| Inspectors: <i>R. Hasse</i> R. Hasse | <u>6-29-84</u> Date |
| <i>W. Kropp</i> W. Kropp | <u>6/29/84</u> Date |
| <i>J. Kish</i> J. Kish | <u>6/29/84</u> Date |
| <i>J. Malloy</i> J. Malloy | <u>6/29/84</u> Date |
| Approved By: <i>F. Hawkins</i> F. Hawkins, Chief Management Programs Section | <u>6/29/84</u> Date |

Inspection Summary

Inspection on April 25 through May 17, 1984 (Report No. 50-255/84-09(DE))

Areas Inspected: Routine, announced inspection by regional inspectors of licensee actions on previous inspection findings; Design Change and Modification Program and implementation; Maintenance Program and implementation; Procurement Program and implementation; Surveillance Program and implementation; Training; and Q-List Control. The inspection involved a total of 244 inspector-hours onsite by 5 inspectors.

Results: Of the 11 areas inspected, no items of noncompliance or deviations were identified in seven areas; three items of noncompliance were identified in the remaining four areas (failure to provide acceptance criteria in surveillance procedure - Paragraph 2.f; failure to establish measures to prevent

the inadvertent use or installation of nonconforming items without technical justification - Paragraph 3.d.(ii); failure to specify adequate technical and quality requirements for a safety related procurement - Paragraph 3.f.(ii); failure to follow procedures - Paragraph 3.h.(ii)).

DETAILS

1. Persons Contacted

Consumers Power Company (CPCo)

- **R. Dewitt, Vice President, Nuclear Operations
- **R. Montross, Plant Manager
- **H. Esch, Director, Quality Assurance
- **D. Vandewalle, Director, Nuclear Licensing
- * **C. Gilmore, Technical Superintendent
- * **R. McCaleb, QA Superintendent
- * **D. Malone, Licensing Engineer
- * **D. Rogers, Technical Engineer
- **B. Young, NAPO
- **G. Petitjean, Technical Superintendent (Big Rock Point)
- * **J. Buechler, Section Head, QA
- **J. Corley, General Supervisor, Quality Operations
- **L. Schuster, Section Head, Audit Programs
- **E. Raciborski, General Supervisor, Quality Systems
- **J. Rang, Operations and Maintenance Superintendent
- *M. Sniegorski, Planning and Scheduling
- *C. Smith, Planning and Scheduling
- *W. Ford, QA
- *J. Gose, Project Superintendent
- *P. Buttonow, Training
- *C. Kozup, Operations Superintendent
- *R. Vincent, NAPO Administrator
- J. Dearth, I&C Maintenance Supervisor
- P. Becht, Scheduling Specialist
- D. Kennedy, Reactor Engineer
- S. Ghadotti, Shift Supervisor
- P. Roff, Maintenance Planner
- G. Daggett, Supervisor, Technical Support
- D. Beach, Section Head, Technical Support
- K. Cavadas, Technical Specialist
- K. Keubell, Outage Scheduler
- T. Leva, Technical Engineer
- J. Haumersen, Technical Engineer
- B. Lour, Maintenance Engineer
- N. Haskell, Licensing
- C. Snow, Licensing

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- * **B. Jorgensen, Senior Resident Inspector
- *R. Walker, Chief, Engineering Branch 1
- **D. Hunter, Chief, Management Programs Section

*Denotes those attending the exit interview on May 11, 1984.

**Denotes those attending the exit interview on May 17, 1984.

2. Action on Previous Inspection Findings

- a. (Closed) Unresolved Item (255/83-01-02): Necessary detail was lacking in the individual training records and the computer printouts which verify that the craftsmen and nonlicensed personnel had received the required training. The inspector reviewed the individual training records and computer printouts and verified that the necessary detail, especially a description of courses had been added. The inspector verified that three craftsmen had received the required training.
- b. (Closed) Unresolved Item (255/83-01-03): The training center office at Palisades had not retained the details of the practice sessions conducted at the offsite Combustion Engineering, Inc. simulator. The practice sessions included the required manual manipulations, as specified in the Reactor Operator Retraining Program. The inspector verified that the Combustion Engineering Inc. Pressurized Water Reactor Simulator Session and Classroom Session Manual, Revision 2, was received and did contain the details of the practice sessions.
- c. (Closed) Unresolved Item (255/83-01-04): Failure to include required contents in lesson plans. The inspector reviewed various lesson plans and verified that NOTD Procedure 3.0 was being implemented. Surveillance S-QP-83-19, performed by Consumers Power Quality Assurance Group, was also reviewed to verify corrective action was taken.
- d. (Closed) Open Item (255/83-01-01): Implementation of supplier evaluation procedure. A review of supplier audits and audit schedules confirmed that the supplier evaluation procedure is being implemented.
- e. (Open) Open Item (255/83-16-05): Incorrect data in basis document of Surveillance Procedure MO-16. The licensee was in the process of rewriting this procedure. Pending completion, this item remains open.
- f. (Closed) Open Item (255/83-05-03): Surveillance procedure for mechanical snubbers needs to be updated prior to next use. Due to the configuration and dimensions of these snubbers, the licensee had contracted the performance of this functional operability surveillance to Wyle Laboratories. ANSI 18.7-1976, Paragraph 5.3 ("Preparation of Instructions and Procedures"), requires that surveillance procedures include appropriate quantitative or qualitative acceptance criteria. Review of Surveillance Procedure RM-45 and Wyle test procedure No. 6108-545, which is incorporated into the Palisades surveillance program by surveillance procedure RM-45, identified that no acceptance criteria are included in either procedure.

This failure to include appropriate acceptance criteria is considered an item of noncompliance with 10 CFR 50, Appendix B, Criterion V (255/84-09-01A).

3. Program Areas Inspected

a. Design Change and Modification Program

The inspector reviewed the licensee's design change and modification program to determine whether the QA Program relating to design change activities had been established in accordance with the licensee's Quality Assurance Program; 10 CFR 50, Appendix B; the Technical Specifications and ANSI N45.2.11, 1974.

(i) Documents Reviewed

- . Administrative Procedure (AP)-9.0.1 - "Request for Plant Modification," Revision 1.
- . AP-9.02 - "Plant Modifications - Major," Revision 1.
- . AP-9.03 - "Plant Modifications - Minor," Revision 0.
- . AP-9.04 - "Equipment Specification and Minor Field Changes," Revision 1.
- . AP-9.05 - "Modification Procedures and Construction Work Packages," Revision 1.
- . AP-4.03 - "Equipment Control," Revision 1.

(ii) Results of Inspection

The primary controlling procedures for design changes and modifications are Administrative Procedures 9.02 ("Plant Modifications - Major") and 9.03 ("Plant Modifications - Minor"). The difference between "Major" and "Minor" modifications is based on who does the work, rather than the scope of the change. Minor modifications are those accomplished by the plant staff, while those accomplished by the Nuclear Operations Department (NOD) General Office are classified as "Major." Contractors may be used for design and/or installation in either case.

Changes in equipment specifications are controlled by Administrative Procedure 9.05 ("Equipment Specification and Minor Field Changes"). Equipment specification changes are changes which do not change plant operating characteristics or procedures and are limited to proven designs and reviewed for applicability to the plant. These procedures adequately address the requirements of 10 CFR 50, Appendix B and ANSI N45.2.11.

Temporary modifications affected by the use of jumpers, links, or bypasses are controlled by Administrative Procedure 4.03 ("Equipment Control"). This procedure does not require the Plant Review Committee (PRC) to review such temporary modifications that might affect plant safety. Technical Specification 6.5.1.6.d requires that the PRC review all proposed changes or modifications to plant systems or equipment that affect plant safety. In addition, the procedure does not address the performance of a safety evaluation pursuant to 10 CFR 50.59(b). This is considered an unresolved item pending revisions of licensee procedure(s) to assure: (1) PRC review of all changes

or modifications affecting plant safety and (2) completion of a safety evaluation pursuant to 10 CFR 50.59(b) for temporary changes or modifications to systems or equipment described in the FSAR (255/84-09-02).

No items of noncompliance or deviations were identified.

b. Design Change and Modification Program Implementation

The implementation of the design change and modifications program was reviewed to verify compliance with the controlling procedures, the Quality Assurance Program, 10 CFR 50.59, and 10 CFR 50, Appendix B.

(i) Documents Reviewed

Facility Changes:

- . FC-562 - Bus 1E Load Shed Modification
- . FC-494-3 - TMI Stack Gas Monitor Modification
- . FC-486 - AFW Sparger Design

Specification Changes:

- SC - MSIV Shaft Redesign
- SC - MSIV Disc Redesign

(ii) Results of Inspection

A review of selected Facility and Specification Change Packages indicated that they were completed or being completed in accordance with the controlling procedures. The facility change packages were selected for modifications which did have some indicated problem(s). The problems were determined to be of a technical rather than programmatic nature. Each issue was being addressed by the licensee.

Facility Change Package FC-494-3 could not be reviewed completely because part of the package could not be located. The package had not been closed out and turned over to document control and was still under the control of the responsible engineer. This is considered an unresolved item pending location of the documents and subsequent review by the NRC (255/84-09-03).

The inspector had some concern with the use of a specification change to affect the modifications to the Main Steam Isolation Valve (MSIV) discs and shafts. Administrative Procedure 9 04, "Equipment Specification and Minor Field Changes," states in part that specification changes can be used when (1) the function of the component is not changed, (2) the operating characteristics are unchanged and (3) a proven design is used.

The changes made to the disc involved strengthening the disc to better withstand closure forces. Changes to the shaft included material and dimensional changes to overcome a cracking problem. While the function and operating characteristics were unchanged, it is not clear that the design was a proven design.

In the case of the disc modification, a design verification was performed. The inspector was satisfied that this addressed the proven design issue, although, perhaps not in strict adherence with procedure intent. Similarly, a verification of the shaft modification design is intended but has not been completed. The completion of the design verification for the MSIV shaft modification is considered an open item (255/84-09-04).

No items of noncompliance or deviations were identified.

c. Maintenance Program

The inspector reviewed the licensee's maintenance program to ascertain whether the QA program relating to maintenance activities had been established in accordance with the Quality Assurance Program and 10 CFR 50, Appendix B requirements. The following areas were reviewed: vendor interface, processing of maintenance work orders, post maintenance testing, and control of nonconforming items. The inspector also reviewed the licensee's preventive maintenance program to verify that a written program had been established which included responsibility for the program, a master schedule had been prepared, and documentation requirements were defined.

(i) Documents Reviewed

- . Administrative Procedure (AP) 5.00, "Maintenance Department Organization and Responsibilities", Revision 0
- . AP 5.01, "Initiation of Maintenance Orders", Revision 1
- . AP 5.02, "Performing Maintenance Activities", Revision 0
- . AP 5.03, "Preventive Maintenance Program", Revision 0
- . AP 2.01, "Processing of Maintenance Orders", Revision 0
- . Nuclear Operations Department Standard (NODS) P12, "Nuclear Operating Plants Maintenance Program", Revision 5
- . NODS - Q01, "Nuclear Operating Plants Maintenance Program", Revision 6

(ii) Results of Inspection

The inspector reviewed the licensee's actions concerning the vendor interface as addressed in Generic Letter 83-28. At present, there are no working level procedures in effect for the receipt, control and incorporation of relevant vendor information into plant activities. As stated in the November 7, 1983 response to Generic Letter 83-28, Consumers Power will develop a plan and schedule for establishing a vendor interface

program sixty days after the Nuclear Utility Task Action Committee issues its final report on vendor interface. This is considered to be an open item pending further review of the licensee's action during a subsequent inspection (255/84-09-05).

The post maintenance testing program was reviewed as it pertained to Generic Letter 83-28. The licensee's November 7, 1983 response to Generic Letter 83-28 stated that reports will be prepared and submitted to the NRC by December 4, 1984 for the Reactor Trip System Components and all other safety related components. An extension of the schedules specified in the November 7, 1983 letter has been requested in a letter dated March 22, 1984 as a result of the current extended refueling outage. The reports which are planned to be submitted by December 4 will describe the post maintenance operability testing of equipment, including vendor-recommended test guidance. The reports will also address any required changes to the Technical Specifications. The submittal of the reports is considered to be an open item (255/84-09-06).

At present the licensee is addressing post maintenance testing. Specifically, Administrative Procedure 2.01 ("Processing of Maintenance Orders") requires that the Operational Planner enter post maintenance testing requirements on maintenance orders and Administrative Procedure 5.02 ("Performing Maintenance Activities") requires that post maintenance testing be accomplished prior to declaring the equipment operable.

No items of noncompliance or deviations were identified.

d. Maintenance Program Implementation

Maintenance activities on safety-related systems and components were reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides, industry codes and standards, and were in conformance with the Technical Specifications. A review of past audit surveillance reports on maintenance activities were also evaluated for adequacy and content.

(i) Documents Reviewed

The following Maintenance Orders (MO) were reviewed:

| | |
|-------------|--|
| 84-ESS-0067 | CV-3031, SIRW out/ct valve |
| 84-ESS-0069 | P74, SIRW Tank Recirculation Pump |
| 84-ESS-0028 | PSY-1801, Containment High Press. Switch |
| 84-PCS-0193 | PT-0377, Pressure Transmitter |
| 83-PCS-0194 | FT-0516, Flow Transmitter |
| 83-PCS-0195 | FT-0316, Flow Transmitter |
| 84-ESS-0016 | P/S 0302, Containment Spray Flow |

The following audit and surveillance reports were reviewed:

| | |
|--------------------------------|---------------------|
| Audit Report A-QT-83-7 | May 1983 |
| Surveillance Report S-QP-83-28 | July-September 1983 |
| Surveillance Report S-QP-83-2 | January 1983 |

Selected preventive maintenance documents, including scheduling documents, were also reviewed.

(ii) Results of Inspection

The maintenance orders (MOs) which were reviewed were processed in accordance with established procedures and included proper reviews and approvals. The MOs identified the classification (safety-related or nonsafety-related) of the items and if the following were required: radiological work permit, inservice inspection, work procedure, material, measuring and test equipment, and/or any quality control inspection. The licensee's QC Department reviews safety-related MOs and notes any required notification or hold points. Those MOs requiring the use of calibrated measuring and test equipment had the calibrated equipment serial number, calibration due date and the calibration date noted on the MO.

One concern was identified regarding the processing of MO's. Administrative Procedure 2.01, Revision 0 ("Processing of Maintenance Orders") requires the Maintenance Planner to ensure that a Deviation Report is initiated, if warranted, in accordance with Administrative Procedure 3.03, Revision 0 ("Corrective Action System"). The guidelines for originating Deviation Reports identify repetitive equipment failures as an occurrence requiring an initiation of a Deviation Report. At present, there is no fully implemented system which allows the Maintenance Planner, when reviewing MOs, to determine if repetitive equipment failures have occurred requiring an initiation of a Deviation Report.

The licensee is in the process of establishing a computerized system for identifying repetitive equipment failures. This matter is considered to be open pending further review of the licensee's actions during a subsequent inspection.
(255/84-09-07)

The inspector also reviewed the preventive maintenance activities for High Pressure Safety Injection Pumps (HPSI) P66A and P66B; Main Steam Isolation Valves (MSIV) CV501 and CV510; and contactors M1, M2, M3, and M4 in the reactor trip system. The preventive maintenance (PM) for the HPSI pumps consists of inspecting for leakage at the mechanical seal area, bearing areas and the mechanical seal in the heat exchanger area. The preventive maintenance is scheduled to be performed every three months. The PM for the MSIV consists of inspecting the packing gland. The PM for the reactor trip contactors consists of cleaning, inspecting and repairing the contactors per Allen-Bradley Bulletin 702.

The licensee had contacted the vendors for the relays and the circuit breakers (42-1RPS and 42-2RPS) in the reactor trip circuit for recommendations concerning preventive maintenance. General Electric, the manufacturer of the relays, made no recommendations. The manufacturer of the trip breakers, Westinghouse, also made no recommendations. The licensee inspected the breakers and found no evidence which indicated a need for preventive maintenance. No deficiencies were identified during this portion of the inspection.

Periodic evaluations by the Technical Department of completed maintenance activities were reviewed by the inspector. Administrative Procedure 5.03 requires a review each 24 months of completed maintenance activities performed during the previous 36 months. This review is performed on a plant system basis. The reviews for the Primary Coolant System, Feedwater System and the Containment Isolation System were documented on a Document Review Sheet. The inspector noted no deficiencies.

The inspector evaluated the effectiveness of maintenance activities which were documented in audit and surveillance reports. The surveillances were performed in January and July-September, 1983 and the audit was conducted in May 1983. The reports identified documentation deficiencies in MO packages. The review of MO's during this inspection did not identify any documentation deficiencies.

During the review of maintenance activities performed on the Main Steam Isolation Valves, it was noted that Consumers Power Company conditionally releases nonconforming material for installation without a technical justification. The licensee's Quality Assurance Program CPC-2A, Appendix A states that they comply with Regulatory Guide 1.58, Revision 2. Regulatory Guide 1.58 endorses ANSI N45.2.2-1972, "Quality Assurance Requirement for Packaging, Shipping, Receiving, Storage and Handling of Items for Water-Cooled Nuclear Power Plants." Standard ANSI N45.2.2-1972 (paragraph 5.3.3) requires that a technical justification for the conditional release of a nonconforming item for installation be prepared and made part of the documentation. At present, Consumers Power Quality Assurance Program and its implementing procedures do not require a documented technical justification when a nonconforming item is conditionally released for installation.

This failure to establish measures to prevent the inadvertent use or installation of nonconforming items without technical justification is considered an item of noncompliance with 10 CFR 50, Appendix B, Criteria XV. (255/84-09-08)

e. Procurement Program

The inspector reviewed the licensee's program for procurement of items classified as safety-related commercial grade to ascertain whether a program had been established in accordance with the Quality Assurance Program and 10 CFR 50, Appendix B requirements. The areas reviewed were as follows: technical and quality requirements in procurement documents, approved supplier's list and the review of procurement documents by appropriate personnel.

(i) Document Reviewed

The following procedures were reviewed:

- . QADP No. VII-2 - "Supplier Evaluation for the Nuclear Operations Department Approved Suppliers List," Revision 3.
- . NODS-M01 - "Materials Management Standard for the Procurement Process," Revision 7.
- . QADP IV-1 - "Procurement Specification and Document Review," Revision 5 and Revision 6.
- . AP-10.02 - "Procurement Process/General," Revision 0.
- . AP-10.03 - "Procurement of Material," Revision 0.
- . AP-10.05 - "Procurement of Services," Revision 0.

(ii) Results of Inspection

The licensee's Quality Assurance Program requires spare and replacement parts to be equivalent to the original parts in performance and quality. Suppliers are required to be evaluated for their capability to furnish a quality item except when the item or service supplied is (1) relatively simple and standard in design, manufacture and test, (2) adaptable to standard or automated inspections or tests of the end product to verify quality characteristics after delivery, and (3) receipt inspection does not require operations that could adversely affect the integrity, function or cleanliness of the item.

Quality Assurance personnel performed and documented reviews of procurement documents to assure that (1) quality requirements were correct; (2) adequate acceptance and rejection criteria were included; and (3) the procurement documents had been prepared, reviewed and approved in accordance with the QA program. For commercial "off-the-shelf" items, where the requirement for a specific supplier's quality assurance program cannot be approved in a practical manner, the licensee's quality assurance program required source verification. This source verification is intended to provide adequate assurance of acceptability unless the quality of the item can be adequately verified upon receipt.

The inspector reviewed QADP IV-1, "Procurement Specification and Document Review," Revision 6 (to be implemented on June 15, 1984). Attachment 7.6 to this procedure provided good guidance to develop appropriate attributes for accepting procured items. The attachment clearly addressed the need to assure that quality characteristics of procured items are identified and verification methods specified. However, discussion with Quality Assurance personnel indicated that it was not intended that the requirements of this attachment be applied to all safety-related procurements, but rather to those of a "special" nature. The inspector suggested that the licensee consider applying the rigor contained in Attachment 7.6 to all safety-related procurements, including those classified as commercial grade. The inspector has no further questions regarding this matter at this time.

No items of noncompliance or deviations were identified.

f. Procurement Program Implementation

Procurement activities for safety related commercial grade items were reviewed to ascertain compliance with approved procedures and 10 CFR 50, Appendix B. Purchase orders designated commercial grade were reviewed to verify that appropriate quality and technical requirements were specified and the suppliers were approved by the licensee's quality assurance organization.

(i) Documents Reviewed

The following purchase orders were reviewed:

| | |
|-----------------|--|
| . 1004-3428-CQ | Boric Acid Pump Motor |
| . 1004-6814-CQ | Component Cooling Water Heat Exchanger Outlet Valve |
| . 5011-2255A-QA | Control Device Assembly |
| . 5010-9347-QA | Seat Ring-Butterfly Valve |
| . LP-08-7643-CQ | Flow Control Valve |
| . 1005-0592-CQ | Electropneumatic Positioner |
| . LP-07-2707-CQ | A-193 Studs and A-194 Nuts |
| . 2000-9389-CQ | Mechanical Seals, Impeller Key and O-ring for Low Pressure Safety Injection Pump |
| . 1002-8212-CQ | Stainless Steel Bar and Plate |
| . 1C05-3245-CQ | Pushbutton Switch |

(ii) Results of Inspection

Purchase Orders were reviewed to verify that they included adequate technical and quality requirements. The following specific observations were made. If an item is (1) part of a safety-related component, its (2) necessary for the component to perform its function, and (3) classified as commercial grade, then the purchase order for the item is identified as CQ ("commercial quality"). With one exception (discussed later),

the purchase orders contained adequate technical and quality requirements. Specifically, the technical requirements included the requirements identified on the original purchase orders or drawings. The quality requirements included Certificates of Conformance and a "no substitution clause". The no substitution clause required that a functional equivalency justification be performed addressing the similarity between the original and the newly procured item.

Discussion with the licensee's QA personnel revealed that a graded approach was utilized for commercial grade purchases. The graded approach allowed identifying nonsafety-related items as CQ for the purpose of ensuring a receipt inspection is performed. The licensee should clearly establish the use of CQ purchase orders for the purpose of ensuring receipt inspection on nonsafety-related items. This is considered to be an open item pending further review of the licensee's action during a subsequent inspection (255/84-09-09).

Of the ten commercial grade purchase orders reviewed, five were issued to vendors not on the licensee's Nuclear Operation Qualified Suppliers list. The specific purchase orders reviewed were as follows:

- . 1004-3428-CQ Boric Acid Pump Motor
- . LP-08-7643-CQ Flow Control Valves (regulate bleed off rate of air from valve actuators)
- . 1005-0592-CQ Electropneumatic Positioner for Shutdown Cooling Heat Exchanger Inlet Valve
- . 1002-8212-CQ Stainless Steel Bar and Plate for Refueling Machine Part Replacement
- . 1005-3245-CQ Pushbutton Switch

The boric acid pump motor is a 30 HP Class 1E motor and was procured on Purchase Order 1004-3428-CQ, dated February 2, 1983. The purchase order identified the motor model number (5K284AK152), frame (284TS), volts (480 AC), phase (3), frequency (60 HZ), service factor (1.15) and the manufacturer (General Electric). The purchase order was issued to a distributor in Toledo, Ohio and required that a Certificate of Conformance accompany the shipment. The motor was manufactured at the General Electric Small AC Motor Department's Nashville Motor Plant.

As stated previously, the licensee's Quality Assurance Program states that a supplier does not need to be evaluated and placed on the Qualified Suppliers List when the item being supplied is (1) relatively simple and standard in design, manufacturer and test, (2) adaptable to standard or automated inspections and (3) receiving inspection does not require operations that could adversely affect the item. The boric acid pump motor did not meet these guidelines because it was identified as Class 1E on the licensee's Equipment Data Base (Q-List) and had

to be designed and manufactured to withstand a seismic event. Additionally, the pump motor was procured from a supplier not on the Nuclear Operations Department Approved Supplier's List.

A review of the original equipment specification, 70P-018, (folder M-1HC), revealed that seismic requirements were imposed on the original boric acid pump assembly. Purchase order 1004-3428-CQ for the replacement pump did not identify any seismic requirements. This failure to identify adequate technical requirements (seismic, codes, standards, etc.) and quality requirements (10 CFR 50, Appendix B, right of access, documentation, etc.) for the boric acid pump motor is considered to be an item of noncompliance with Criterion IV of 10 CFR 50, Appendix B (255/84-09-10).

A Nonconforming Material Report (NMR) N-QP-83-94 prepared on August 11, 1983, identified that the boric acid pump motor received was a different model number (5K284AL1056A) than that which had been ordered (5K284AK152). The differences between the model numbers were as follows:

| | <u>New Model</u> (5K284AL1056A) | <u>Model Ordered</u> (5K284AK152) |
|-------------------|------------------------------------|--------------------------------------|
| Material | Aluminum | Cast Iron |
| Length of Motor | 23.125" | 22.0625" |
| End Shield Height | 11/16" Shorter | ----- |
| Diameter | .24 less | ----- |

NMR N-QP-83-94 was dispositioned USE-AS-IS. The technical justification on the NMR for USE-AS-IS states that, "Unit supplied is a functionally equivalent motor and should be accepted as is. Reference attached EA (Engineering Analysis)-83-SRO-20." The EA addressed the material compatibility in regards to corrosion and dimensional compatibility. The EA did not address acceptability of the new model for seismic requirements. The EA concluded that the new model was acceptable for use as a spare part for Boric Acid Pumps P56A and P56B.

The motor was stored in the warehouse and tagged "accepted." However, the motor did have attached a QA hold status tag which required a specification change package to be completed which would document the material substitution and model number changes prior to installation of the motor. This QA hold tag did not identify the need for a seismic evaluation prior to installation. Seismic qualification of the motor is considered to be an unresolved item pending review of the licensee's action regarding this issue (255/84-09-11).

A review of the purchase order 1004-6814-CQ was conducted by the inspector for the Component Cooling Water Heat Exchanger Outlet Valve. The valve was a 16" butterfly valve purchased from the original supplier. The FSAR, Section 9, required valves 2" and larger in the Component Cooling System to have

butt weld ends and be constructed in accordance with the B31.1 code. The purchase order required a valve with flange ends and did not reference the B.31.1 code. The licensee could not locate the specification change package to document the deviation from the FSAR requirements. This matter is considered to be unresolved pending further review (255/84-09-12).

Additionally, the bid package for the butterfly valve specified certain nondestructive examinations (NDE). Specifically, the bid package required radiography and liquid penetrant for all accessible surfaces of pressure retaining parts. The supplier took exception to the radiography and offered ultrasonic examination in its place. Memorandum of Change #1, dated May 24, 1983, deleted the requirements of radiography and liquid penetrant. This Memorandum of Change did not add the supplier proposed ultrasonic examination. The purchase order for procuring the original butterfly valves was not available during the inspection to compare its NDE requirements to those specified on purchase order 1004-6014-CQ (May 27, 1983); therefore, a comparison could not be accomplished for determining like for like replacement. This matter is considered an unresolved item pending further review during a subsequent inspection (255/84-09-13).

g. Surveillance and Calibration Program

The surveillance and calibration program was reviewed to verify compliance with the Quality Assurance Program, Technical Specification, and regulatory requirements.

(i) Documents Reviewed

- . AP-9.20, "Surveillance Program Overview," Revision 1.
- . AP-9.21, "Technical Specifications Surveillance Procedure Development," Revision 1.
- . AP-9.22, "Technical Specifications Surveillance Procedure Scheduling and Issue," Revision 1.
- . AP-9.23, "Technical Specifications Surveillance Procedure Implementation and Corrective Action," Revision 1.
- . AP-9.25, "Technical Specifications Surveillance Procedure Routing, Evaluation, and Filing," Revision 1.
- . AP-5.07, "Control of Measuring and Test Equipment," Revision 1.

(ii) Results of Inspection

The inspector determined that a master schedule had been established to ensure surveillances and calibrations were being accomplished in a timely manner. Responsibility had been assigned to keep the master schedules up to date and to reflect recent Technical Specifications or license revisions. Formal requirements have been established for conducting surveillance tests and calibrations in accordance with approved procedures.

The procedures included appropriate acceptance criteria. Surveillance procedures contained provisions for the review and evaluation of data and provisions existed for reporting deficiencies, malfunctions, and out-of-tolerance data to the appropriate personnel. Responsibility has been assigned for ensuring that schedules for all tests and calibrations are satisfied.

For calibrated safety-related components not identified in the technical specifications, determinations were made to ensure that frequencies and status of calibration were documented in a separate program. Responsibilities to administer the program were properly delegated.

No items of noncompliance or deviations were identified.

h. Surveillance and Calibration Program Implementation

Surveillance and calibration records were reviewed to verify compliance with surveillance and calibration program requirements.

(i) Documents Reviewed

- . RM-29, "Main Steam Safety Valve Setpoint," Revision 9; Performed September, 1981.
- . RI-17, "Main Steam Isolation Valve Circuits Test and Valve Closure Time," Revision 4; Performed December, 1981.
- . RO-75, "HYDRO Test for HPSI Systems," Revision 0; Performed in 1981.
- . QE-9, "Diesel Fire Pump Battery Surveillance," Revision 11; Performed in February, May and August, 1983.
- . MO-22, "Inservice Test Procedure High Pressure Safety Injection Pumps," Revision 25; Performed June, July and August, 1983.
- . MO-3, "Reactor Protection Matrix Logic Tests," Revision 10; Performed June, July and August, 1983.
- . MI-2, "Reactor Protective Trip Units," Revision 29; Performed June, July and August, 1983.
- . MO-24, "Auxiliary Feedwater System Inservice Test Procedure," Revision 30; Performed June, July and August, 1983.
- . MSI-I-6, "HI Pressure Injection (Loop 2A)"; Performed September 3, 1983.
- . MSI-I-6, "HI Pressure Injection (Loop 1A)"; Performed September 3, 1983.
- . MSI-I-6, "HI Pressure Injection (Loop B)"; Performed September 6, 1983.

(ii) Results of Inspection

During this inspection, the plant was in a refueling outage. The majority of monthly surveillances were not required to be performed due to the outage. The inspector reviewed records of

surveillances that had been performed while the plant was in operation. The inspector also reviewed several refueling surveillances and quarterly surveillances.

Review of Surveillance Procedure MO-22 ("Inservice Test Procedure - High Pressure Safety Injection Pump") records revealed that for some verifications required by the procedure, there were no provisions to document the verification (i.e., signature, initials or date). Specifically, Paragraphs 5.2.4, 5.2.5 and 5.3.1 each require verification of the position of certain valves. There is no evidence of how this was accomplished. The inspector discussed this issue with licensee personnel and noted during the discussion that the incident appeared to be an isolated case. Licensee personnel stated they would correct the problem. This is considered to be an open item pending further review of the licensee's actions during a subsequent inspection (255/84-09-14).

Review of Surveillance Procedure MO-3 ("Reactor Protection Matrix Logic Tests") records indicated a discrepancy on the Acceptance Criteria and Operability Checklist. Specifically, Paragraph 2 of the Acceptance Criteria and Operability Checklist was not completed during the documentation of this surveillance. This signature ensures that no safety systems settings were violated per the Technical Specifications. Administrative Procedure 9.23 ("Technical Specification Surveillance Procedure Implementation and Corrective Action"), Paragraph 6.4, requires the responsible supervisor to document the acceptability and operability determinations by completing and signing the Acceptance Criteria and Operability Checklist (Form 9.21-5). This failure to complete the Acceptance Criteria and Operability Checklist as required by site administrative procedures is considered to be an item of noncompliance with Criterion V of Appendix B to 10 CFR 50 (255/84-09-01B).

i. Training

The licensee's training program was reviewed to evaluate its implementation and compliance with the requirements of 10 CFR 50, Appendix B and the QA Program. Items considered during this inspection included (1) qualification and requalification training of licensed operators, (2) quality assurance training of all personnel, (3) lesson plan control, and (4) control of training records.

(i) Documents Reviewed

- . Palisades Nuclear Plant Administrative Procedure 10.46, "Plant Records," Revision 0.
- . Palisades Nuclear Plant Administrative Procedure 11.00, "Plant Training," Revision 0.
- . Palisades Nuclear Plant Administrative Procedure 11.01, "Master Training Plan," Revision 0.

- . Lesson Plan GET-01-07, "Procedures," Revision 0.
- . Lesson Plan GET-01-06, "Quality Assurance/Quality Control," Revision 0.
- . Lesson Plan GET-02-05, "Quality Assurance/Quality Control," Revision 0.
- . Audit Report A-QT-83-25, "Plant Training and Qualification," December 7, 1983.
- . Audit Report A-TS-81-3, "NUREG 0737 Response Audit, Section I.C.5," May 19, 1982.
- . Surveillance Report S-QP-83-15, "Training (NUREG 0737)," September 1, 1983.
- . Surveillance Report S-QP-83-19, "Lesson Plan Preparation," May 11, 1983.
- . Surveillance Report S-QP-83-29, "Control of Training Records," September 8, 1983.
- . Surveillance Report S-AP-84-01, "Administrative Controls Training Program," February 27, 1984.

(ii) Results of Inspection

The review revealed no major deficiencies. The inspector reviewed the training records of six licensed operators. The requalification training program was reviewed to ensure that NUREG 0737 requirements are being met. The licensed operators did not have an up-to-date "Personal Qualifications Statement" (NRC Form 398) in their training files. These forms were found and placed in the files during the inspection.

The indoctrination program specifically intended to familiarize personnel with Quality Assurance was reviewed. Personnel received yearly quality training during the General Employee Training Sessions. Ten questions regarding Quality Assurance were included in the fifty question exam administered at the end of the training session.

Control of lesson plans and control of training records were reviewed and found acceptable. Audits and surveillances of the training areas were also reviewed. Appropriate corrective actions were either completed or initiated.

j. Q-List Control

The licensee's Q-List control program and implementation were reviewed to evaluate compliance with the requirements of 10 CFR 50 Appendix B and the QA Program.

(i) Documents Reviewed

- . Standard NODS A-21, "Q List Control," Revision 3.
- . Palisades Nuclear Plant Administrative Procedures:
 - 2.01, "Processing Maintenance Orders," Revision 0.
 - 3.03, "Corrective Action," Revision 0.
 - 9.07, "Control of Equipment Numbers," Revision 1.

- 9.30, "Q-List/Equipment Data Base," Revision 0.
- 10.05, "Procurement of Services," Revision 0.
- 10.07, "Noncertified Q-Listed Material," Revision 0.
- 10.08, "Q-List," Revision 0.
- 10.41, "Procedure on Procedures," Revision 3.
- 10.42, Procedure/Document Matrix," Revision 0.
- . Nuclear Activities Plant Organization Procedure 10, "NAPO Support of the Plant Review Committee (PRC)," Revision 0.
- . Audit Report No. 4-QA-84-6, "Palisades Q-List," March 21, 1984.
- . Selected Deviation Reports.
- . Selected Maintenance Orders performed in 1984.
- . Selected Q List Interpretations between 1982-1984.
- . Nuclear Plant Q-List Hard Copy, dated May 5, 1984.

(ii) Results of Inspection

The inspector reviewed the Administrative Procedures and standards relative to the control of the Equipment Data Base (Q List). Palisades, at the time of this inspection, had about 10,000 items that have not been classified as either safety-related (Q) or nonsafety-related (N). Items that have not been classified were to be controlled in accordance with Standard Number NODS-A21, Section 5.1.5. Section 5.1.5 states that, "The QA Program shall be applied to such items as if they were Q-classified until an interpretation is made." Those items not classified in accordance with NODS-A21 were evaluated using a Q List interpretation form. This form may be used to obtain the initial classification for an item or to change an existing classification. The form was to be reviewed by the technical superintendent and Quality Assurance and then reviewed by the Plant Review Committee (PRC) for recommendation to the plant manager.

The following concerns regarding the control of the Q List were identified:

- . No system existed to track Q List interpretations, nor did a system exist to readily retrieve the documents. Administrative Procedure No. 9.30 requires that a copy of the interpretation form be attached to the document prompting the interpretation; however, this was not being done consistently. By the end of the inspection the licensee had begun to take measures to correct the situation by implementing a program to identify outstanding Q List interpretation numbers on the Equipment Data Base (Q List).
- . The Plant Review Committee (PRC) is required by Administrative Procedure 9.30 to review Q List interpretation forms. At the time of this inspection, approximately 400 of these forms were awaiting PRC review. Some of these forms date from September and October, 1982. Palisades has taken action to reduce the backlog through support by the Nuclear

Activities Part Organization (NAPO). Because the Equipment Data Base is not updated until completion of PRC review, this backlog has caused inconsistencies between the Q List interpretations and the Equipment Data Base.

From a sample of 50 Q List interpretation forms, there were 33 components classified as safety-related by the Q List interpretations but still classified as nonsafety-related on the equipment data base. The inspector is concerned that equipment that has been "upgraded" to safety-related could possibly be treated as nonsafety-related while waiting for PRC review.

Pending resolution, these three matters are considered unresolved (255/84-09-15).

During a review of maintenance orders to verify proper classification, the inspector noted that Technical Specification related calibration services are not always being performed as safety-related. Maintenance order 84 ESS 0075, regarding the calibration of pressure gauge PI-0322 used for a Technical Specification surveillance, was performed as a nonsafety-related activity. Apparently, the classification of the maintenance order was based on the equipment classification rather than the activity. In this case, the pressure gauge was properly classified as nonsafety-related. However, its calibration was a safety-related activity because the operability of a safety-related system is determined in part by its output. This was discussed with the licensee and they agreed to review the issue and take appropriate corrective action. This is considered an open item pending NRC review of the licensee's actions (255/84-09-16).

No items of noncompliance or deviations were identified.

4. Open Items

Open items are matters which have been discussed with the licensee, which will be reviewed further by the inspector, and which involve some action on the part of the NRC or licensee or both. Open items disclosed during the inspection are discussed in Paragraphs 3.b.(ii), 3.c.(ii), 3.d.(ii), 3.f.(ii), 3.h.(ii) and 3.j.(ii).

5. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. Unresolved items disclosed during the inspection are discussed in Paragraphs 3.a.(ii), 3.b.(ii), 3.f.(ii) and 3.j.(ii).

6. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) on May 11 and May 17, 1984, and summarized the purpose, scope, and findings of the inspection.