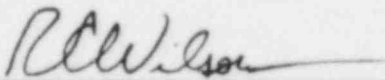


U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT

Report No.: 50-266/85013; 50-301/85013  
Docket No.: 50-266; 50-301  
License No.: DPR-24; DPR-27  
Licensee: Wisconsin Electric Power Company  
231 W. Michigan Street  
Milwaukee, Wisconsin 53201  
Facility Name: Point Beach Nuclear Plant, Units 1 and 2  
Inspection At: Milwaukee and Two Creeks, Wisconsin  
Inspection Conducted: July 22 to 26, 1985

Inspector:

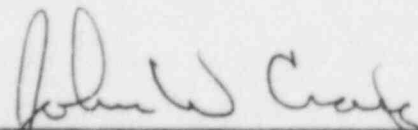
  
R. C. Wilson, Equipment Qualification & Test Engineer

10/21/85  
Date

Also participating in the inspection and contributing to the report were:

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10/29/85  
Date

## INSPECTION SUMMARY:

Inspection on July 22 to 26, 1985 (Inspection Report No. 50-266/85013;  
50-301/85013)

Areas Inspected: Special, announced inspection to review the licensee's implementation of a program per the requirements of 10 CFR 50.49 for establishing and maintaining the qualification of electric equipment within the scope of 10 CFR 50.49. The inspection also included evaluations of the implementation of equipment qualification (EQ) corrective action commitments made as a result of deficiencies identified in the December 22, 1982, Safety Evaluation Report (SER) and the September 28, 1982, Franklin Research Center (FRC) Technical Evaluation Report (TER). The inspection involved 260 inspector hours onsite.

Results: The inspection determined that the licensee has implemented a program to meet the requirements of 10 CFR 50.49, except for certain deficiencies listed below. No deficiencies were found in the licensee's implementation of corrective action commitments made as a result of SER/TER identified deficiencies.

<u>Name</u>	<u>Report Paragraph</u>	<u>Item Number</u>
<u>Potential Enforcement/Unresolved Items:</u>		
1. 10 CFR 50.49 Nonconformance Resolution	4.A	50-266/85013-01(DRS); 50-301/85013-01(DRS)
2. Foxboro Auxiliary Feedwater Flow Transmitters	4.A	50-266/85013-02(DRS) 50-266/85013-02(DRS)
3. Rockbestos coaxial cable	4.D.(1)	50-266/85013-03(DRS); 50-301/85013-03(DRS)
4. Limitorque dc operators	4.D.(2)	50-266/85013-04(DRS); 50-266/85013-04(DRS)
<u>Open Items:</u>		
1. Training Program Implementation	4.A.(2).c	50-266/85013-05(DRS); 50-301/85013-05(DRS)
2. Master List Procedure Revision	4.A.(3)	50-266/85013-06(DRS); 50-301/85013-06(DRS)
3. Maintenance Procedure Completion	4.A.(4)	50-266/85013-07(DRS); 50-301/85013-07(DRS)
4. Limitorque 1-MS2020B Conduit Separation	4.C	50-266/85013-08(DRS)
5. Rockbestos Firewall III control cable	4.D.(3)	50-266/85013-09(DRS); 50-301/85013-09(DRS)
6. EQ Summary Sheet Corrections	4.D.(4)	50-266/85013-10(DRS); 50-301/85013-10(DRS)
7. Limitorque Operator Inspection	4.E	50-266/85013-11(DRS); 50-301/85013-11(DRS)

## DETAILS

### 1. PERSONS CONTACTED:

#### 1.1 Wisconsin Electric Power Company (WEPC)

- \*C. W. Fay, Vice President, Nuclear Power
- \*R. K. Hanneman, Sr. Nuclear Engineer
- \*D. R. Blakely, Nuclear Safety Engineer
- \*J. Z. LaPlante, Nuclear Engineer
- \*M. J. Logan, Quality Engineer
- \*C. W. Krause, Sr. Licensing Engineer
- \*S. Miller, Summer Student
- \*R. A. Newton, General Supt., Nuc. Sys. Engrg. and Analysis
- \*G. M. Kreiser, General Supt., QA
- \*R. J. Kohrt, Safety Engineer
- \*E. J. Lipke, General Supt., Nuclear Plant Engrg.
- \*J. E. Knorr, Regulatory Engineer, PBNP
  - R. Heiden, Supt., Nuclear QA
  - W. Herrmann, Supt. Maint. and Constr.
  - N. Hoefert, Supt., I&C
  - R. Bruno, Supt., Training

#### 1.2 Nuclear Regulatory Commission

- \*T. G. Colburn, NRR, Project Manager
- R. Leemon, Resident Inspector

\*Denotes those present at exit meeting in Milwaukee on July 26, 1985

2. PURPOSE:

The purpose of this inspection was to review the licensee's implementation of the requirements of 10 CFR 50.49 and the implementation of committed corrective actions for SER/TER identified deficiencies.

3. BACKGROUND:

On October 13, 1983, the NRC held a meeting with WEPC officials to discuss WEPC's proposed methods to resolve the EQ deficiencies identified in the December 22, 1982 SER and September 29, 1982 FRC TER. Discussions also included WEPC's general methodology for compliance with 10 CFR 50.49 and justification for continued operation for those equipment items for which environmental qualification was not completed. The minutes of the meeting and proposed method of resolution for each of the EQ deficiencies were documented in a November 23, 1983 submittal from the licensee. The TER and November 23 submittal were reviewed by the inspection team members and were used to establish a status baseline for the inspection.

4. FINDINGS:

A. EQ Program Compliance with 10 CFR 50.49

The NRC inspectors examined the licensee's program for establishing the qualification of electric equipment within the scope of 10 CFR 50.49. The program was evaluated by examination of the licensee's qualification documentation files, review of procedures for controlling the licensee's EQ efforts, verification of the adequacy and accuracy of the licensee's 10 CFR 50.49 equipment list, and examination of the licensee's program for maintaining the qualified status of the covered electrical equipment.

Based on the inspection findings, which are discussed in more detail below, the inspection team determined that the licensee has implemented a program to meet the requirements of 10 CFR 50.49, although some deficiencies were identified.

10 CFR 50.49 Noncompliance Resolution

During the entrance meeting the licensee identified to the NRC inspectors a problem that involves the licensee's overall response to the discovery in the plant of equipment that is not fully qualified. The problem involves Foxboro N-E10 auxiliary feedwater flow transmitters FT-4036 and FT-4037 in both units. These are equipment within the scope of R.G. 1.97 and paragraph (b)(3) of 10 CFR 50.49. As a result of a licensee internal QA audit, actual maintenance records were compared with EQ Maintenance Requirements Sheets. This review disclosed that, after transmitter calibration, the cover gaskets were not replaced and the covers were not torqued as required for qualification. The site issued a Nonconformance Report (NCR) dated April 11, 1985. Later in April it was determined that the transmitters (installed in 1981) were not qualified because they had not been fitted with Style "B" amplifiers.

The Unit 1 transmitters were then corrected, but as of the NRC inspection (July 22, 1985) the Unit 2 transmitters were still unmodified. On April 29 to May 21 the site initiated, but did not complete approval of, a Maintenance Work Request to upgrade the Unit 2 transmitters. On July 22 headquarters engineering issued a second NCR giving the following Unit 2 status: amplifiers not replaced, vendor contacted but parts delivery date not established, another contact to be made July 29. The second NCR also provided the first documented safety evaluation of this problem, and stated that modification will be accomplished as soon as practicable after acceptable parts are received and processed on site. Although the incomplete MWR indicated that work could be accomplished during plant operation, the licensee orally indicated that modification would likely be accomplished during a planned outage in about November 1985.

The NCRs did not document any review for reportability under 10 CFR 50.72 or 50.73, nor did any procedure require such review. In this regard the inspectors noted the following: (a) Site NCR form EQR-22a dated 04-84 provides for reportability action only for "Potential 10 CFR 21 Report;" (b) in fact site QA and regulatory engineers had determined without documenting their review that the incident was not reportable, although no procedure required such review nor provided specific EQ-related guidance; and (c) a licensee committee (Intersection Review Group) operating for more than a year had generically addressed reportability review and on June 14, 1985 had reviewed a draft procedure promulgating a revised NCR form with a checkoff block for reportability. This procedure was expected to be issued by September 1985.

The inspectors reviewed the safety analysis in the July 22 NCR against the criteria for Justification for Continued Operation in paragraph (i) of 10 CFR 50.49. The analysis satisfied criterion (1) by identifying five other instruments, all either qualified or located in mild environment, that permit proper system operation. A statement that the transmitters are expected to survive the accident environment (the only harsh parameters are radiation and humidity) based on testing of the unmodified design for more severe conditions addresses criterion (2). Criterion (4) concerning completion of the safety function does not apply except with respect to possibly misleading the operator. However, criterion (3) concerns limited use of administrative controls over equipment that has not been demonstrated to be fully qualified, and criterion (5) concerns misleading the operator as a result of equipment failure resulting from the accident environment. Even though the licensee pointed out that the transmitters are category (b)(3) post-accident monitoring equipment not directly required for safe shutdown, the licensee's internal safety analysis should have fully considered paragraph (i) of 10 CFR 50.49.

The auxiliary feedwater flow transmitter deficiency includes both procedural deficiencies under Appendix B to 10 CFR 50 and an EQ deficiency under 10 CFR 50.49; these are addressed as two Potential Enforcement/Unresolved Items as follows: 10 CFR 50.49 Noncompliance Resolution is Potential Enforcement/Unresolved Item 50-266/85013-01; 50-301/85013-01 including lack of procedures

requiring timely reportability review and evaluation, failure to document reportability review, and lack of timely EQ evaluation of failure consequences. Foxboro Auxiliary Feedwater Flow Transmitters is Potential Enforcement/Unresolved Item 50-266/85013-02; 50-301/85013-02 comprising failure to properly justify continued operation with unqualified equipment.

(1) Qualification Files, General

The licensee's control and organization of EQ files begins with the Nuclear Power Department QA Policy Manual. The EQ Master List is included in the manual as Appendix H; equipment identification, location, type of environment, and interfacing equipment (such as cable) are shown. Part III of the QA Policy Manual provides color-coded P&ID drawings showing Master List Equipment.

Each type of Master List equipment has a computer-based Equipment Qualification Summary Sheet, similar to an IEB 79-01B SCEW sheet but revised in format to show additional information such as qualification level and approval signature. Specification and qualification references identified on the Summary Sheets are included in the EQ files. The references include calculations and analyses prepared by the licensee as necessary to supplement other information, together with reviewer comment forms. Finally, EQ Maintenance Requirements Sheets are provided for all Master List equipment, defining maintenance and surveillance requirements for preserving qualification. Nuclear Engineering procedure 3.12 (May 20, 1985), Environmental Equipment Qualification, covers the entire program.

The NRC inspectors examined summary sheets and files for 15 equipment items, where an item is defined as a specific type of electrical equipment, designated by manufacturer and model, which is representative of all identical equipment in a plant area exposed to the same environmental service conditions. The items were selected in advance by the inspection team and identified to the licensee during the entrance meeting.

The files adequately documented qualification of the equipment except as described in paragraph 4.D below. The files were auditable and with the few exceptions described in this report were complete and accurate. No generic documentation deficiencies were found.

(2) EQ Program Procedures

The inspectors examined the implementation and adequacy of corporate and site policies and procedures for establishing and maintaining the environmental qualification of electrical



equipment in compliance with the requirements of 10 CFR 50.49. The licensee's methods for establishing and maintaining the environmental qualification of electrical equipment were reviewed in the following documents:

Nuclear Engineering Administration Manual, Section NE 3.12,  
May 20, 1985, Environmental Equipment Qualification

NPD Quality Assurance Procedure Manual Rev. 2 dated  
July 8, 1985

QP 3-1, Modification Requests

QP 4-1, Procurement of QA-Scope Goods and Services

QP 6-1, Control of NPD Procedures Manual

Operating PBNP Administrative Control Policies and  
Procedures Manual-PBNP 3.1.3, Maintenance work Request

NE 3.11, dated December 30, 1983, Purchasing Requisition

NE 3.13, dated April 30, 1984, Training

QP 3-5, Revision 0, dated February 15, 1985, Specification  
Preparation, Review and Approval

QP 4-1, Revision 0, dated November 16, 1984, Procurement of  
QA Scope Goods and Services

QP 7-2, Revision 0, dated July 8, 1985, Receipt Inspection  
of QA-Scope Materials and Equipment

Quality Assurance Policy Manual:

Part I, Section 4, Revision 0, dated November 16, 1984,  
Procurement Document Control

Part I, Section 7, Revision 0, dated November 16, 1984,  
Control of Purchasing Materials, Equipment and Service

Part II, Appendix H, Revision 0, dated November 16, 1984,  
Environmental Qualified Electrical Equipment

Quality Assurance Instructions:

PB-8, Revision 1, dated January 7, 1985, General  
Requirements for Environmental Qualification of  
Electrical Equipment

PB-8.1, Revision 1, dated January 7, 1985, Procurement  
of Environmentally Qualified Electrical Equipment

PB-8.2, Revision 1, dated January 7, 1985, Acceptance of Environmentally Qualified Equipment

PB-8.3, Revision 1, dated January 7, 1985, Review of Environmental Qualified Test Plan and Reports

#### PBNP Maintenance I&C Callup Systems

The audit team was also given a presentation describing the licensee's EQ program on July 22, 1985, during which requirements and procedures in the above documents were discussed.

The inspectors reviewed the above licensee procedures for implementation of the requirements of 10 CFR 50.49 including: definitions of harsh and mild environments, equipment qualified life, service conditions, periodic testing, maintenance and surveillance. The licensee's EQ program was also reviewed for requirements to establish, evaluate and maintain auditable EQ documentation including EQ summary sheets, test reports, maintenance records and other supporting documentation to justify equipment qualification; training of personnel in the environmental qualification of equipment; control of plant modifications such as installation of new and replacement equipment; and provisions for updating replacement equipment to 10 CFR 50.49 criteria. The following observations were made:

- a. The licensee's program was found to identify and define requirements for equipment in harsh environment through EQ lists and summary sheets. Mild and harsh environments were found clearly defined and differentiated. Engineering analysis and evaluation had been performed to establish environmental conditions. EQ documentation was found auditable, with controls for evaluation and maintenance of these documents.
- b. Purchase orders reviewed were observed to be appropriately identified with EQ requirements. Receipt inspections for EQ equipment and qualification data packages were required to be performed by the site QA/Quality Control (QC) organization. Accepted equipment was required to be stored in a controlled area reserved for safety-related equipment.

The inspector reviewed WEPC QA audit report A-P-85-02, "Nuclear Power Department Nuclear Environmental Qualification." This audit was conducted during January 1985 and covered EQ activities at both WEPC Corporate headquarters and the plant. Findings and observations of the audit had identified incomplete and inconsistent summary sheets, record maintenance problems, no maintenance callup system in the I & C area, and lack of evidence of the required documentation reviews. The inspectors observed that corrective action initiated and completed as a result of the findings and observations identified during this audit had enhanced the licensee's EQ program.



- c. At the time of this inspection, a formal training program for plant maintenance personnel had not yet been established. The licensee's training department was in the process of obtaining training requirement needs from the plant operation departments. Subsequent to the inspection in a followup telecon with the licensee's training department, the inspector was informed that training requirements had since been identified and a training program was being prepared for plant personnel responsible for maintaining environmental equipment qualification. During NRC interviews of licensee QA and plant maintenance supervisory personnel, it was established that a consistent awareness existed among personnel regarding special requirements applying to environmentally qualified equipment within the scope of 10 CFR 50.49. Many of those interviewed had attended the Electric Power Research Institute (EPRI) seminars on "Maintaining Equipment Qualification." A future inspection will verify the licensee's implementation of a formal training program. Training Program Implementation constitutes an Open Item 50-266/85013-05; 50-301/85013-05.

The licensee's EQ maintenance program is discussed separately in section 4.A.(4) below.

(3) 10 CFR 50.49 List (EQ Master List)

The licensee is required to maintain an up-to-date list of the equipment that must be qualified under 10 CFR 50.49. This list is documented as Appendix H of the "NPD Quality Assurance Policy Manual." Appendix H is entitled "Environmentally Qualified Equipment" and dated November 16, 1984. Considered in the preparation of this list are environmental effects resulting from all postulated design-basis accidents documented in Chapter 14 of the licensee's Final Safety Analysis Report, technical specification limiting conditions of operation, emergency procedures, piping and instrumentation diagrams, and locations within the plant subject to a harsh post-accident environment.

The EQ Master List was produced as detailed by PT 8.1.1, "Methodology for Generation of the Master List of Electrical Equipment Important to Safety at Point Beach Nuclear Plant 1 & 2 to be Environmentally Qualified" dated May 20, 1983. The licensee's definition of mild and harsh environments explained by NEPB-85-304 dated July 15, 1985 are considered satisfactory.

Three procedures presently in place provide guidance for maintaining the accuracy and completeness of the EQ Master List. These procedures are NE 3.12, QP 3-1, and QP 6-1, identified in paragraph 4.A.(2) above.

Discussions with licensee personnel revealed that they are aware of the necessity for reviewing all modifications to the plant to determine if they would result in changes to the EQ Master List. However, the procedures now in place do not specifically require this kind of review, nor do they assign responsibility to a designated individual to assure that changes to the EQ Master List resulting from a review of design modifications are in fact incorporated into a revision. Consistent with applicable QA provisions governing the control of design process and related documents, these procedures should be upgraded to include delegation of responsibility and authority to an appropriate individual or department to assure adequate controls over the accuracy and completeness of the EQ Master List. This area will be reexamined in a future inspection. Master List Procedure Revision constitutes Open Item 50-266/85013-06; 50-301/85013-06.

Eight items were used as an audit sample to verify the completeness of the current EQ Master List. In order to compile this audit sample, a review was conducted of the following emergency procedures and piping and instrumentation drawings (P&IDs).

#### Emergency Procedures

EOP-0, Rev. 0, 7/1/85, Reactor Trip or Safety Injection  
EOP-0.1, Rev. 0, 7/1/85, Reactor Trip Response  
EOP-0.2, Rev. 0, 7/1/85, Natural Circulation Cooldown  
EOP-1, Rev. 0, 7/1/85, Loss of Reactor or Secondary Coolant

#### P&IDs

541F091, Sht 1, Rev. 4, Reactor Coolant System Engineering Flow Diagram  
584J741, Rev. 25, Chemical Volume Control System Engineering Flow Diagram  
541F092, Rev. 13, Sampling System Engineering Flow Diagram  
110E017, Shts. 1, 2, & 3, Rev. 22, SI System Engineering Flow Diagram (Unit 1)  
110E035, Sht 1, Rev. 20, SI System Engineering Flow Diagram (Unit 2)  
110E018, Rev. 20, Auxiliary Coolant System Engineering Flow Diagram  
M00700190110, M201&M2201, Units 1 & 2 Main and Reheat Steam  
M00300090229, Auxiliary Feedwater System

The audit sample was selected to verify that those items required to be on the list are in fact on the list. The sample also included an item required for implementation of RG 1.97 (core exit thermocouple extension cable). All sample items required to be on the EQ Master List were in fact on the list. A sample item not required to be on the EQ Master List was questioned to test the thoroughness of the licensee's review; the item was not on the list and a satisfactory explanation why it was not on the list was provided. Based on this review the licensee's EQ Master List is considered satisfactory.

(4) EQ Maintenance Program

Applicable program procedures are discussed in section 4.A.(2) above. In addition, component-specific maintenance procedures and records were examined, such as the following for Foxboro N-E10 series transmitters:

Procedure NE 3.12, Figure 3.12-4, Equipment Qualification Maintenance Requirement.

PBNP 6.8, Revision 0, dated July 5, 1985, Environmentally Qualified Equipment Preventive Maintenance Callup File (I&C).

ICP 4.8 Major, Revision 4, dated December 28, 1984, Calibration Procedure for Containment Pressure Transmitters, Data Sheet 7, (1PT968 & 2PT968).

ICP 5.35 Minor, Revision 1, dated May 4, 1984, Calibration Procedure for Condensate Storage Tank Level and Service Water Header Pressure Transmitters, Data Sheet 1 (1LT-4038).

Foxboro Master Instruction MI 020-164, December 1981 for NE-13 differential pressure transmitters (lists vendor maintenance requirements).

Interviews conducted with plant QA management and engineers, and the station maintenance supervisors of I&C, electrical and mechanical equipment revealed that Equipment Qualification Maintenance Requirements (EQMR) forms have been provided for each piece of EQ equipment and were being used by the station personnel to maintain equipment qualification. Plant personnel were in the process of preparing component-specific procedures for maintenance and surveillance of the equipment, based on the EQMRs. At the time of the inspection all of the required instrumentation maintenance procedures were completed, but only four procedures had been issued in the electrical/mechanical area. However, where new EQ procedures were not yet in effect, maintenance personnel were directly using the EQMRs; thus, the inspectors found that the plant maintenance currently being performed did not appear to compromise the environmental qualification of equipment. Implementation of appropriate maintenance/surveillance procedures for all remaining EQ equipment will be verified in a future inspection. Maintenance Procedure Completion constitutes Open Item 50-266/85013-07; 50-301/85013-07.

B. SER/TER Commitments

The NRC inspectors evaluated the implementation of EQ corrective action commitments made as a result of SER/TER-identified deficiencies as stated in a licensee submittal dated November 23, 1983. This submittal states that all equipment on the 10 CFR 50.49 Master List is qualified except for certain equipment for which Justifications for Continued Operation (JCO) were submitted. The final SER, transmitted August 30, 1984, identified that certain

equipment was still under JCO. A May 2, 1985 licensee letter stated that the only equipment still needing schedule extension was Crosby lift indicating switch assemblies (LISAs) and incore thermocouple connectors. NRC letter dated July 17, 1985 extended the qualification deadline for these items until November 30, 1985. In addition, the licensee stated that the schedule to meet paragraph (b)(3) of 10 CFR 50.49 and for RG 1.97 equipment is identified in a separate program for equipment not already included on the EQ Master List.

Based on review of files and of the 10 CFR 50.49 Master List, the NRC inspectors identified no deficiencies in the implementation of SER/TER commitments. Ongoing review of RG 1.97 implementation may result in additional equipment being added to the Master List.

C. Plant Physical Inspection

The NRC inspectors, with component accessibility input from licensee personnel, established a list of approximately 15 components per unit for physical inspection. All were accessible at the time of inspection, during plant operation, in both units. The inspectors examined characteristics such as mounting configuration, orientation, interfaces, model number, ambient environment, and physical condition. No concerns were identified during the physical inspection except for the Open Item described below.

A three-inch long opening was observed in the electrical conduit for Limitorque valve operator 1-MS2020B, exposing the electrical cable at that point. Although qualification of the Limitorque operator or the cable is not dependent on a closed conduit path, the mechanical/physical protection provided by the conduit is degraded by the gap. The licensee explained that conduits had been opened to introduce flame-suppressant material, and that this particular conduit had evidently not been reconnected properly. The licensee committed to correct this discrepancy, and this correction will be verified in a future inspection. Limitorque 1-MS2020B Conduit Separation constitutes Open Item 50-266/85013-08.

D. Detailed Review of Qualification Files

The NRC inspectors examined files and summary sheets for 15 selected equipment items to verify the qualified status of equipment within the scope of 10 CFR 50.49. In addition to comparing plant service conditions with qualification test conditions and verifying the bases for these conditions, the inspectors selectively reviewed areas such as required post-accident operating time compared to the duration of time the equipment has been demonstrated to be qualified, similarity of tested equipment to that installed in the plant (e.g., insulation class, materials of components of the equipment, tested configuration compared to installed configuration, and documentation of both), evaluation of adequacy of test conditions, aging calculations for qualified life and



replacement interval determination, effects of decreases in insulation resistance on equipment performance, adequacy of demonstrated accuracy, evaluation of test anomalies, and applicability of EQ problems reported in IE INs/Bulletins and their resolution.

During its review of the component files the inspection team identified two Potential Enforcement/Unresolved Items and two Open Items, described below. Generally, the files were found to be auditable and they fully documented qualification of the plant equipment.

- (1) Rockbestos coaxial cable, Master List No. 11.6.c - Qualification to NUREG 0588 Cat. 1 was claimed based on a Rockbestos test report questioned by IN 84-44. During the inspection the licensee produced a General Atomic test report for unaged cable of the proper type, and a Raychem test report covering aged non-coaxial cable with the same jacket material. Section 2.3 (Category 1) of NUREG 0588 requires that the same piece of equipment must be used throughout the test sequence. The licensee did not provide an analysis showing that this requirement can be waived; in fact, the aging behavior of coaxial cable is difficult to address analytically. Rockbestos coaxial cable comprises Potential Enforcement/Unresolved Item 50-266/85013-03; 50-301/85013-03.
- (2) Limitorque dc operators, MS-2019 and 2020, both units - The file did not include evidence that these operators were type tested in the same configuration as installed in the plant, with no credit for sealing the cable entrance. During the inspection the licensee contacted Limitorque and obtained assurance, to be documented in followup correspondence, that the tested configuration did permit unrestricted LOCA atmosphere entry through the cable entrance. The licensee stated that he will add this documentation to the EQ Summary Sheet and file. Limitorque dc operators comprises Potential Enforcement/Unresolved Item 50-266/85013-04; 85-301/85013-04.
- (3) Rockbestos Firewall III control cable, Master List No. 1.10.d - Qualification to NUREG 0588 Cat. 1 was based on a Rockbestos test report known to be deficient for that level of qualification as defined in IE Information Notice 84-44. In responding to IN 84-44 the licensee assembled a supplemental file, not referenced in the EQ files, containing a Raychem test report and other material apparently sufficient to establish qualification. This file was shown to the inspectors by the licensee, who stated that he believed qualification had already been established but he would revise the EQ Summary Sheets and files to incorporate the additional material. Completion of EQ file revision will be verified in a future inspection. Rockbestos Firewall III control cable comprises Open Item 50-266/85013-09; 50-301/85013-09.

- (4) Three instances of discrepancies between EQ Summary Sheets and documentation files or installed equipment configurations are combined into a single Open Item:

- (a) ASCO solenoid valves SV466C and D, 476C and D, and 966C - First, EQ Summary Sheet notes stated that these valves should be installed using sealed cable conduit having a low point weep hole, but the installed conduit configurations did not have low points (loops). When questioned the licensee provided an acceptable rationale for the absence of the low point loops: the valves are de-energized at the beginning of the postulated accident before their environment becomes harsh, and they never require re-energization, so that a sealed cable entrance is not required. Second, during the documentation review the inspectors observed a licensee internal memo stating that solenoid coils and ethylene propylene EPDM seals should be replaced every four years. When questioned the licensee stated that the memo was based on misinterpretation of the aging analysis, and that in fact coil and seal replacement would be determined by examination during preventative maintenance as required on the EQ Maintenance Requirement form.
- (b) Exo-Sensor hydrogen analyzer - The EQ Summary Sheet states that the required post-DBE operating time is one year and the qualification time is one month. Notes on the Summary Sheet state that the analyzer is in fact only required for one month. The licensee was requested to re-review the required operating time, which under RG 1.97 is plant specific and determined by the licensee, and revise the Summary Sheet and files as necessary.
- (c) Limitorque operators MS-2019 and 2020 - Two discrepancies were noted. First, licensee EQ Ref. 1, Appendix E should also be referenced on the Summary Sheet since it is the basis for temperature qualification. Second, although the 40 year qualified life is not impacted, the temperature listed for thermal aging calculation differs from the actual operating temperature because of shunt coil heating in the operator.

Correction of the appropriate documentation to remove these discrepancies will be verified in a future inspection. EQ Summary Sheet Corrections constitutes Open Item 50-266/85013-10; 50-301/85013-10.

#### E. IE Information Notices and Bulletins

The NRC inspectors reviewed and evaluated WEPC's activities related to the review of EQ-related IE Information Notices/Bulletins. The inspector's review included examination of WEPC's procedures and EQ documentation packages relative to 12 Information Notices and one Bulletin. The procedures review determined that WEPC does have a



system for distributing, reviewing, and evaluating Information Notices/Bulletins relative to equipment within the scope of 10 CFR 50.49. During the review of individual component qualification files the NRC inspectors evaluated WEPC's actions with respect to Information Notices/Bulletins. No concerns were identified during this review except the Open Item described below.

IE Information Notice 83-72 dated October 28, 1983 notified licensees of equipment qualification problems with several component types and stated that addressees were expected to review the information for applicability to their facilities. Included in Information Notice 83-72 as EQ Notice No. 24 is a description of Limitorque operator qualification concerns reported for an NTOL facility in June, 1982 involving terminal blocks, orientation, drain plugs, space heaters, and other items. To address these concerns, the licensee initiated a confirmatory equipment inspection. However, for maintenance purposes the Limitorque operators are divided into five groups, with one group being addressed each year. Thus only 20 percent of about 50 operators had been inspected by July 1985, with inspection of the last group not planned until 1989. This action is not as responsive as expected, and possible licensee acceleration of the inspection program will be reviewed in a future NRC inspection. Limitorque Operator Inspection constitutes Open Item 50-266/85013-11; 50-301/85013-11.