U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-220/86-05

Docket No. 50-220

License No. DPR-63 Priority - Category C

Licensee: Niagara Mohawk Power Corporation
300 Erie Boulevard West
Syracuse, New York 13202

Facility Name: Nine Mile Point, Unit 1

Inspection At: Syracuse, New York

Inspection Conducted: April 14-18, 1986

Inspectors: Leonard S. Cheung — 5/27/86
Leonard S. Cheung, Reactor Engineer — date

Ralph Paolino — 5/27/86
Ralph Paolino, Lead Reactor Engineer — date

Clifford J. Anderson — 5/28/86
Cliff Anderson, Chief — date
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Mark Jacobus, Sandia National Lab.
Steve Alexander, Engineer, IE

Approved by: Clifford J. Anderson — 5/28/86
Cliff Anderson, Chief — date
Plant Systems Section, EB

Inspection Summary: Inspection on April 14-18, 1986 (Report No. 50-220/86-05)

Areas Inspected: Announced, follow-up inspection of previously identified potential enforcement/unresolved items and open items (50-220/86-05-01 through -11) and corrective actions taken by Niagara Mohawk Power Corporation with regard to meeting the requirements of 10 CFR 50.49. Also included as a part of this inspection was review of additional environmental qualification (EQ) files of Limitorque Valve motors, Rosemount transmitters and Fenwal temperature switches.

Results:

a. Status of Previously Identified Items

The inspection determined that the licensee had completed all but two corrective actions resulting from the findings of the NRC EQ team inspection of August 15-23, 1985, as follows:

Potential Enforcement/Unresolved Items	Item Numbers	Status
1. Qualification file deficiencies	50-220/85-13-01	Closed
2. Static-O-Ring pressure switches	50-220/85-13-02	Closed
3. Valcor solenoid valves	50-220/85-13-03	Closed
4. General Electric EB-25 terminal blocks	50-220/85-13-04	Closed
5. General Electric EB-5 terminal blocks	50-220/85-13-05	Closed
6. Fisher 304 position switches	50-220/85-13-06	Closed
7. Rosemount 1151 transmitters	50-220/85-13-07	Closed

Open Items

1. Implementation of EQ procedures	50-220/85-13-08	Open
2. Closed loop cooling motor lubrication	50-220/85-13-09	Open
3. Acoustic monitor coaxial cable	50-220/85-13-10	Closed
4. Laurence solenoid valve	50-220/85-13-11	Closed

b. Newly Identified Items

Two unresolved items were identified as a result of a review of additional EQ files:

1. Qualification of Limitorque Valve motor wiring
2. Qualification Status of Kerite Cables

DETAILS

1.0 Key Persons Contacted

1.1 Niagara Mohawk Power Corporation (NMPC)

A. Athelli, Senior EQ Engineer
W. Connolly, QA Program Manager
T. Egan, Engineer
*P. Francisco, Lead Licensing Engineer
*G. Gresock, Manager, Nuclear Design
*J. Janas, Associate Senior QA Engineer
*J. Jirousek, EQ Manager
K. Lampman, Assistant Generation Engineer
*T. Lempges, Vice President, Nuclear Generation
*S. Loveland, Lead EQ Engineer
*R. Main, Generation Specialist
*C. Mangan, Senior Vice President
*M. Mosier, Associate Senior Nuclear Engineer
*T. Perkins, General Superintendent, Nuclear
*T. Roman, Station Superintendent, Unit 1
*K. Sweet, Electrical Maintenance Superintendent
*C. Terry, Manager, Nuclear Engineering and Licensing
*G. Wilson, System Attorney
*S. Wilczek, Manager, Nuclear Tech.

1.2 NMPC Consultants

J. Anderson, Senior Qualification Engineer, Wyle Lab.
*R. Bennett, Engineering Supervisor, Wyle Lab.
*T. Brewington, Engineering Program Manager, Wyle Lab.
*J. Gleason, Manager, Nuclear Engineering Service, Wyle Lab.
*L. Price, EQ Engineer, Gasser Associates
*J. Vaden, Mechanical Engineer, Gasser Associates

1.3 United States Nuclear Regulatory Commission

*J. Kelly, Project Manager
*W. Johnston, Deputy Direct, DRS, Region I

*Denotes those present at the exit meeting on April 18, 1986.

The team members also contacted other managers, supervisors, engineers and craftsmen during the inspection.

2.0 Status of Previously Identified Items

2.1 (Closed) Potential Enforcement/Unresolved Item 50-220/85-13-01 pertaining to generic qualification file deficiencies. The inspector reviewed NMPC procedure NT 100.C, "Equipment Qualification," Revision 0, dated January 29, 1986. Paragraph 6.5.19 of this procedure requires use of

an "Environmental Qualification Checklist" (also called an EQ File Review Checklist) to document "program implementation." This checklist also shows the claimed level of qualification and a statement that the item is qualified for its "environment."

The inspector checked approximately six EQ files and noted that they contained the signatures and the checklists described above. The EQ master list did contain the entry "yes" in the "Action Completed" column for line items the licensee considered qualified. The inspector found that proper qualification level was checked on the checklist.

The inspector checked four EQ files and noted that functional performance requirements were properly defined. The inspector also reviewed Wyle Report 17655-PERF-1, which was used to specify and demonstrate compliance with the functional performance requirements for the application of the qualified equipment.

The inspector considers the licensee's corrective actions on this item adequate for its closure.

This item is considered closed.

2.2 (Closed) Potential Enforcement/Unresolved Item 50-220/85-13-02 pertaining to the environmental qualification of Static-O-Ring pressure switch, (pc. No. PS-70-279). This item included three deficiencies: 1) the licensee did not demonstrate that the equipment performance observed during the type testing was adequate for the application, 2) the inspection revealed dependence on a cable seal internal to the conduit, however, the seal was not qualified, and 3) the specified qualified life is 40 years, however, no EQ maintenance was specified.

Wyle Laboratory report "Nuclear Environmental Assessment Report on Performance of Safety-Related Equipment at Nine Mile Point Unit 1 Nuclear Power Plant" specifies acceptable performance levels within which safety-related equipment must operate. The report includes four categories of equipment performance. The Static-O-Ring pressure switch was included in Category 2 -- Performance Determined by Operating History. For this equipment which is only subject to higher-than-normal radiation, the effects of radiation have been addressed and the equipment has been shown to not be adversely affected.

The qualification of the switch was originally classified as HELB plus LOCA. Based on the location of the switch, its qualification has been reclassified to LOCA only. Because the switch is located outside the drywell, it needs only to be qualified for radiation environment. Under these conditions, qualification of the seal is not required. The inspector reviewed the revised SCEW sheet, the environmental qualification checklist and the qualification file review check to confirm that the switch was reclassified to LOCA alone. The inspector also reviewed the pressure switch to confirm that the reclassification is justified.

The inspector reviewed the licensee's basis for not specifying EQ related maintenance to confirm that the specified corrective maintenance was adequate to preserve the qualification of this equipment.

This item is considered closed.

2.3 (Closed) Potential Enforcement/Unresolved Item 50-220/85-13-03 pertaining to the environmental qualification of Valcor solenoid valve, (pc. No. SOV-39-14.7). This item included two deficiencies: 1) no conduit seal was used in the plant installation, however, a conduit seal was used in the type test and 2) the licensee failed to identify required EQ maintenance for a 40 year qualified life.

The qualification of the Valcor solenoid valve was originally classified as HELB plus LOCA. Based on the location of the solenoid valve, its qualification has been reclassified to LOCA only. Since this valve is located outside the drywell, it needs only be qualified for radiation environment. Under these conditions, the installation need not include a conduit seal. The inspector reviewed the revised SCEW sheet, the environmental qualification checklist and the qualification file review check to confirm that the solenoid valve was reclassified to LOCA alone. The inspector also reviewed the licensee's technical basis for excluding the HELB environment. Since these valves are in the emergency condenser system, they would not be called upon to mitigate a HELB.

With regard to the issue of EQ required maintenance, the licensee noted that they planned near term replacement of these solenoid valves. The inspector confirmed the licensee plans to replace the specified Valcor solenoid valves with ASCO solenoid valves during the current outage. However, the inspector noted that other Valcor solenoid valves on the master list will continue to be used in the facility. The inspector reviewed the required EQ maintenance sheets to confirm that the specified maintenance for these valves was adequate to preserve the qualification of the equipment.

The inspector reviewed the licensee's disposition of Information Notice 86-65, "Improperly Rated Field Wiring to Solenoid Valves," as it pertains to Valcor Solenoid valves. This notice relates to a potential deficiency involving field installed electric cables with low temperature rated insulation being terminated inside solenoid valves housing which are subject to high temperatures caused by selfheating. It was determined that all affected Valcor solenoid valves were provided with pigtails which were qualified with the valves. The inspector observed Valcor solenoid valves SOV 39-12C, SOV 39-14C and SOV 39-11C during the plant walkdown and verified the existance of the pigtails.

This item is considered closed.

2.4 (Closed) Potential Enforcement/Unresolved Item 50-220/85-13-04 pertaining to the qualification of GE EB-25 terminal blocks. The licensee had identified that all EB-25 terminal blocks were used for on-off functioning only. The operating time requirement for terminal blocks inside the drywell had been revised from 28 hours to 1 hour (SCEW sheet 711). The tested insulation assistance during the first hour was very high and therefore leakage current was not a problem. The terminal blocks located outside the drywell still require an operating time of 28 hours. However, the temperature and pressure profiles after an accident decay quickly. The insulation resistance of the terminal blocks did not change substantially.

The inspector reviewed pertinent EQ documents for the EB-25 terminal blocks and did not identify any more concerns about the qualification of the terminal blocks.

This item is considered closed.

2.5 (Closed) Potential Enforcement/Unresolved Item 50-220/85-13-05 pertaining to the qualification of GE EB-5 terminal blocks. The licensee had determined all EB-5 terminal blocks located inside the drywell were for on-off functions only. The operating time requirements for these terminal blocks had been revised from 28 hours to 1 hour (SCEW sheet 042). The tested insulation resistance during the first hour remains high and therefore leakage current would not create a problem. For terminal blocks located outside the drywell, five were used for analog signal transmission, four for Rosemount transmitters (FT 81.1-01 and 02 and LT 68-28 and 29) and one for temperature sensor TE-36-29. The rest were for on-off function only.

The licensee performed an engineering analysis for each of the EB-5 terminal blocks used for analog signal transmission, and demonstrated that the resultant loop error was within the allowable limit. The results of these analyses were documented in their report No. 17655-PERF-1.

The inspector reviewed pertinent EQ documents and considered this item closed.

2.6 (Closed) Potential Enforcement/Unresolved Item 50-220/85-13-06 pertaining to the environmental qualification of Fisher model 304 position switch, part No. 39-11-1LSC. The switch has been qualified to DOR guidelines as noted in licensee assessment report No. 17655-LSW-16, Revision A, dated September 14, 1985; EQ reference No. 246 and Deficiency Resolution Report No. 17655-LSW-16.1, Revision B, dated October 8, 1985.

The SCEW sheet indicates the position switch is located outside the containment and is subjected to only a radiation environment. This item was included by the licensee in the listing of changes from HELB to LOCA radiation only made to equipment qualification records as a result of the licensee post-audit (#85-13) reevaluation. This change was reported to the NRC in a March 4, 1985 letter (NMP1L-0032) from the licensee.

In reviewing the position switch qualification package, the inspector noted that an internal memo, dated December 5, 1985, has been issued by the EQ engineer to the EQ coordinator stating that the Fisher model 304 position switch is being replaced with a qualified NAMCO Model EA-180 switch. Switches scheduled for replacement during the 1986 outage are listed in SCEW sheet Nos. 582, 583, 584, 585, 401, 402, 403 and 404.

This item is closed.

2.7 (Closed) Potential Enforcement/Unresolved Item 50-220/85-13-07 pertaining to the qualification status of Rosemount 1151 transmitters. The licensee completed a retest of Rosemount 1151DP transmitters in 1985 and had developed a new qualification file for this equipment. The inspector noted that the new file now contained QC inspection report No. 79-589A dated April 6, 1979 for the installation of the transmitters. This report established the beginning of qualified life and justified the DOR guideline as the basis for qualification.

The new test report (prepared by Wyle Lab.) indicated that partial type testing and new analysis had been done using a Rosemount 1151DP 4E transmitter with one BUNA-N and one EPR O-ring installed. Qualified lives for both O-rings as limiting components were calculated using actual service temperature historical data weighted for time at that temperature and using a summation of degradation intervals technique. All BUNA-N O-rings had been replaced with EPR O-rings which have much longer qualified life. O-ring replacement intervals were verified to have been less than their qualified life. The transmitters as a whole were evaluated to have a qualified life greater than 40 years.

This item is closed.

2.8 (Open) Open item 50-220/85-13-08 pertaining to the implementation of EQ procedures and control of the EQ program. This item covers several areas. Each area is discussed separately as follows:

2.8.1 EQ procedures and procedure implementation

The licensee issued top tier document NT-100.C, "Equipment Qualification," Revision 0, in January, 1986. The licensee considered this document contains sufficient detail to be used for various categories.

Procedure NT-100.C establishes methods which can be used by licensee engineering and licensing, in conjunction with site technical support, to satisfy the requirements of 10 CFR 50.49. This document is used to determine environmental qualification criteria; identification of design requirements and control; installation requirements, EQ maintenance requirements, and EQ file requirements. For example, section 6.10.1 states that "zonal maps shall be maintained as control documents, and include peak values of temperature, pressure and relative humidity that would be experienced in each area of the plant analyzed for High Energy Line Break (HELB)."

The licensee has developed individual zonal maps based on a study by NUS (NUS-1961-SAA1). The zonal maps contain the required information as stated in the procedure.

The procedure (NT-100.C) references 24 documents which may be used in conjunction with the procedure. Of the 24 documents referenced, all have been issued except seven. The seven have been written and approved, ready to be issued. Their issuance is pending formal training of personnel in use of the procedures. This training is scheduled for May 1986.

The inspectors considered this area completed except for the EQ maintenance requirements which are discussed below.

2.8.2 EQ Required Maintenance and Site Maintenance Procedures Updates

The EQ maintenance requirements are defined in paragraph 6.7 of NT-100.C. The EQ required maintenance (EQRM) for each type of equipment is listed in the EQRM form and transmitted to the site for implementation. The site personnel are responsible for scheduling, performing, inspecting, and tracking the required maintenance activities. A computer program has been developed by the licensee to track the status of each maintenance activity.

The site personnel are also responsible to update their site maintenance procedures to include the EQ requirements. Two groups are involved in these activities. The Electrical Equipment group and the I&C group.

The Electrical Maintenance supervisor indicated that 28 electrical maintenance procedures need to be updated. Five of them are to be used for the EQ maintenance during the current outage. These five procedures (N1-EPM-C1 and C2, N1-EPM-R1, N1-EPM-C14 and N1-EPM-122-R135) have been drafted and will be issued before plant restart from the current outage. The rest of the 28 procedures will be updated and issued before the end of this year.

Twenty-three I&C maintenance procedures need to be updated to include the EQ requirements. Of these 23 procedures, all but one have been written and are in the review process. One of these has been approved and is ready to be issued. Four have been reviewed and are in process for corrections prior to release. These four are scheduled for issue on April 19, 1986. The remainder (in various stages of approval) will be issued before the end of the current outage.

In the interim, work is being done per Work Requests and EQRMs based on existing procedures which form the basis for the I&C EQ maintenance procedures.

The EQ maintenance activity involving replacement of Rosemount Transmitter O-rings was confirmed by reviewing Work Request Nos. 10100, 11009, 11010 and 11011, dated March 24, 1986.

2.8.3 EQ Training Program

2.8.3.1 Site Personnel Training

The inspector reviewed and discussed the licensee's EQ training program and implementation of training procedures relating to equipment qualification. Topics covered in the training program will enable licensee personnel to utilize a SCEW sheet, Environmental Maps from the Equipment Qualification Procedure NT-100.C and the EQ Master Equipment List.

The training program is in effect for Electrical and Instrumentation and Control personnel. Training records indicate the program has been in effect since September, 1985. The records also indicate that personnel are tested on the material presented and must demonstrate an understanding of the equipment qualification program as evidenced by an achievement of 80 percent or better in the examination.

2.8.3.2 Corporate Personnel Training

Corporate training has been delayed. The Corporate EQ training program originally scheduled for February, 1986 has been delayed to May, 1986. Corporate EQ personnel have been given copies of the EQ material (NT-100.C, i.e.) to read and acknowledge receipt of this material. The EQ function has been supported to date by experienced contract personnel. Licensee personnel will gradually move in to perform the EQ function as training is completed.

2.8.4 This item remains open pending NRC review and evaluation of the licensee's completion of their EQ maintenance program and Corporate personnel training.

2.9 (Open) Open item 50-220/85-13-09 concerning the oil spillage under each of the reactor building closed loop cooling motors M70-01, 02 and 03. The licensee stated that this problem was due to lubricant overfill during the routine maintenance. The licensee proposed two steps to prevent recurrence of this problem: 1) to instruct the maintenance personnel not to overfill lube oil during the lubrication maintenance, and 2) to adjust the motor lube oil filler level such that any overfilled oil will be drained to the drain pan. The inspector verified through training record that the first step was completed in September, 1985. However, the second step had not yet been taken. The licensee stated that one of the three motors was being overhauled and the other two motors had to run continuously. Once the overhaul is completed, they would adjust the motor oil filler level.

This item remains open.

2.10 (Closed) Open item 50-220/85-13-10 pertaining to verification of procurement documentation to establish similarity for acoustic monitor coaxial cable and the Rockbestos coaxial cable for which the file established qualification.

The inspector reviewed licensee procurement document No. 52657, product code Nos. I46-3422 (38/C #16XLPE/NED) and I46-0021 (2/C #16XLPE/NED) verifying similarity of cable type and size. The document review included certified test reports for the above product code numbers, cable megger termination and interconnecting wiring diagram No. 3-N21-E21.5.

This item is closed.

2.11 (Closed) Open item 50-220/85-13-11 pertaining to a deformed gasket in a conduit coupling for a related switch and the seismic acceptability of the valve (No. 50V-201.2-23) installation with respect to a steel clamp.

The deformed gasket has been replaced and operator training provided for replacement and positioning of gasket seals.

For the valve installation, the licensee has provided an engineering evaluation with supporting calculations (No. S22.4-201.2-H24) for the installed configuration (support No. 201.2-H-24) minus the steel clamp. The support was analyzed and designed for East/West and Vertical loads. The analysis does not reflect a north/south restraint of the valves that would occur with the use of a clamp.

The licensee could not explain why the steel clamp was installed. The clamp was removed and a second evaluation and calculation was performed by the licensee to determine if there had been any damage as the result of using the steel clamp which would have prevented thermal expansion in the north/south direction of the valve support. The analysis shows that while the clamp was in place, it did not cause overstress in either the piping or pipe support.

This item is closed.

3.0 Licensee Post-Inspection Reevaluation of Equipment Qualification

Following the NRC inspection of the licensee's Equipment Qualification Program conducted August 19-23, 1985, the licensee took steps to correct the identified deficiencies. The licensee corrective actions are described in three letters to the NRC dated September 30, 1985, November 15, 1985 and December 2, 1985. Corrective actions related to specific file deficiencies are evaluated in section 2 of this report.

With regard to programmatic deficiencies identified during the inspection, the licensee described their general corrective actions during an enforcement conference at the NRC Region I office on February 5, 1986. These actions included the following programmatic activities:

- Reassessment of EQ test Reports
- Revision of EQ test Reports
- Addition of Page/Paragraph References
- Qualification File Review Checklist
- Traceability Matrix (Summary Table)
- Functional Performance Reassessment

During the current inspection each of these programmatic activities were reviewed both programmatically and as they related to specific equipment qualification files reviewed during the inspection. No programmatic deficiencies were identified.

The licensee discussed the results of their post-inspection reevaluation during the February 5, 1986 conference call with the NRC and in their letter dated March 4, 1986 to the NRC. The licensee's re-inspection of accessible qualified equipment was initiated in April 1985. This re-inspection did not identify any substantial deficiencies. The licensee conducted a re-evaluation of all the equipment qualification files in light of the deficiencies identified during the August 19-23, 1985 inspection and the programmatic activities listed above. As a result of this re-evaluation three-hundred five (305) changes were made to the files as of February 17, 1986. Of this number, 17 affected the qualification status of qualified equipment. The licensee stated that none of these changes required testing or additional analyses to establish qualification. Furthermore, no unqualified equipment or required hardware changes were identified. the inspector reviewed the details associated with a sample of the 17 file changes affecting qualified status. Specifically, the inspector reviews changes associated with the D.G. O'Brien electrical penetrations. The licensee increased the specified operating time from 28 hours to 100 days. the inspector confirmed that these changes in the specified operating time were enveloped by the qualification of the equipment. A summary review of several other file changes affecting qualified status by the inspector confirmed the licensees conclusion that equipment specifications were enveloped by the equipment qualification.

No significant deficiencies were identified by the inspector in the licensee's post-inspection reevaluation of Equipment Qualification.

4.0 Review of Additional EQ Files

4.1 The inspectors reviewed the EQ files and SCEW sheets for three selected equipment-types to verify the qualification status of the 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., 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; evaluation of test anomalies; and applicability of EQ problems reported in IE INs/Bulletins and their resolution.

4.2 The following equipment-types were selected for review:

a) Rosemount Model 1153D transmitters. (SCEW sheets 062, 063, 064, 343 and 344).

b) Limitorque Model SMB-3 valve actuations (SCEW sheets 078, 079, 080 and 185).

c) Fenwal Model 17002-40 temperature switches (SCEW sheets 20 through 35).

4.3 Finding

Within the scope of this review, no unacceptable conditions were identified.

5.0 Qualification of Generic Equipment

The inspector reviewed the licensee's method of verifying that generic equipment installed in the plant is included in the Equipment Qualification master list and backed by Equipment Qualification files supporting the qualification of the equipment. Examples of generic equipment are cables, terminal blocks, switch gear and splices.

The methods used by the licensee to verify installed generic equipment vary. For several of the generic items on the master list such as switch gear and power supplies, the licensee conducted a walkdown of the items. For the cable splices, the licensee recently replaced most of the cable splices with qualified splices. The verification methods used for other items are not as definitive as the above methods and the verification methods are not clearly documented. An example of an item in the latter category is cable. Verification of installed cable is accomplished through a combination of licensee and vendor records relating to site cable procurement and applications. In some, but not all cases, cable can be identified by walkdowns through cable jacket markings, SIS wire marking or samples of unmarked cable are returned to the vendor for positive identification. Additional information relating to installed cable is available in the plant archives. However, this information is not computerized or readily available for this purpose. As a result of discussions with the licensee, they plan to document the various methods they used to verify installed generic equipment at Nine Mile 1.

No significant deficiencies were identified by the inspector in this review.

6.0 Plant Physical Inspection

6.1 The inspectors selected a sample of four Limitorque valve actuators (Model Nos. SMB-0, SMB-1 and SMB-2), four Rosemount 1153D transmitters, and four cables for physical inspection. All these items were located outside the drywell and were accessible at the time of the inspection. One Limitorque valve actuator (Model No. SMB-1) is a new actuator not yet installed. The inspectors examined the characteristics such as mounting configuration, orientation, interfaces, model number, ambient environment, and physical conditions. For the Limitorque valve actuators, the inspector also examined the identity of the internal wiring.

6.2 Findings

a) For Limitorque valve actuators, the NRC inspectors did not identify any unacceptable conditions other than those already identified by the licensee. The licensee had established a program in 1984 to identify and replace, as necessary, all jumper cables from the limit switches to the torque switches if the cables were not either Raychem "Flamtrol" or Rockbestos "Firewall III." They developed Procedure N1-EMP-45.96, "Equipment Qualification of Limitorque Valve Actuators and Associated Motor Type SMB and SB" in 1984 to implement this program.

According to the licensee, there are 39 Limitorque valve actuators requiring environmental qualification. They conducted a reinspection during the week of April 7, 1986, of 35 of these actuators and found that 20 of the 35 contained jumper cables (from the limit switches to the torque switches) whose identify was unknown and qualification status could not be established. Subsequently, work requests had been issued to replace the jumper cables of these 20 actuators with qualified cables. As of April 14, 1986, four had been completed. The rest will be completed during the current outage.

The other four actuators will be reinspected for their jumper cables. The licensee plans to replace the cables where necessary with qualified cables prior to startup from the current outage.

The licensee stated that the cases where identification of the wire was not immediately possible is not necessarily a condition of non-qualification but rather a case where the qualification could not be established without additional research or additional test/analysis.

Since the qualification status of the affected valve actuators cannot be determined for the period from November 30, 1985 to the time when the jumper cables are or were replaced, this is considered an unresolved item pending further NRC evaluation of the issue (50-220/86-05-01).

b) The inspector identified that two Kerite cables (one Model HTK power cable wired to Limitorque valve actuator IV-31-07, one Model FR II FR control cable wired to Limitorque valve actuator FCV-80-118) were not included on the master list, nor were any SCEW sheets prepared for this type of cable. The licensee indicated that the cables were previously covered in a Kerite splice qualification file. However, the qualification file had been deleted from the master list when all the splices were replaced by other qualified splices.

This item is unresolved pending NRC review of the licensee's corrective action on the qualification of these types of Kerite cables (50-220/86-05-02).

7.0 Unresolved Items

Unresolved items are matters which require more information in order to ascertain whether they are acceptable items, or violations. Unresolved items identified during this inspection are discussed in Details, in paragraph 6.2.

8.0 Exit Meeting

The inspector met with licensee and licensee representatives (denoted in paragraph 1.0) at the conclusion of the inspection on April 18, 1986 at the corporate office.

The inspector summarized the scope of the inspection, the inspection findings and confirmed with the licensee that the documents reviewed by the team did not contain any proprietary information. The licensee agreed that the inspection report may be placed in the Public Document Room with prior licensee review for proprietary information (10 CFR 2.790).

At no time during this inspection was written material provided to the licensee.