U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 84-09

Docket No. 50-410

License No. CPPR-112 Priority -- Category A

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

Facility Name: Nine Mile Point, Unit 2

Inspection At: Scriba, New York

Inspection Conducted: May 14 - June 15, 1984

Inspectors: R.A. Gramm 7/26/84
R.A. Gramm, Resident Inspector date

S.K. Chaudhary, Senior Resident Inspector 8/2/84
date

date

Approved by: S.J. Collins 8/3/84
S.J. Collins, Chief, Reactor Projects
Section 2C, DPRP
date

Inspection Summary:

Inspection on May 14-June 15, 1984 (Report No. 50-410/84-09)
Areas Inspected: Routine inspection by the assigned resident inspector and a site detailed senior resident inspector of work activities, procedures and records relative to allegations; corrective action programs; electrical penetrations; component supports; pipe whip restraints; and followup to construction appraisal team inspection. The inspectors also reviewed licensee action on previously identified items and performed plant inspection tours. The inspection involved 179 hours by the inspectors.
Results: Two violations were identified: Inadequate implementation of effective corrective action to quality control identified deficiencies (paragraph 5); and failure to perform requisite nondestructive examination of electrical penetration welds (paragraph 6).

## DETAILS

1. Project Organizations

Niagara Mohawk Power Corporation (NMPC)

Stone and Webster Engineering Corporation (SWEC)

General Electric Company (GE)

ITT - Grinnell Industrial Piping, Inc. (ITT)

John Controls, Inc. (JCI)

Reactor Controls, Inc. (RCI)

2. Plant Inspection Tours

The inspectors observed work activities in-progress, completed work and plant status in several areas during general inspection tours. Work was examined for any obvious defects or noncompliance with regulatory requirements or license conditions. Particular note was taken of the presence of quality control inspectors and quality control evidence such as inspection records, material identification, nonconforming material identification, housekeeping and equipment preservation. The inspectors interviewed craft personnel, supervision, and quality inspection personnel in the work areas. Observations are noted below:

During a routine inspection tour the inspector observed unattended pre-heat applied to pipe restraint MSS-037. Upon questioning the practice he was informed that only the minimum pre-heat temperature was checked at approximately 6 hour intervals. Upon review of the ITT "Pre-Heat Control Procedure" P301 X - ITTG2 the inspector noted that the instruction requires the maximum interpass temperature to be checked during the welding process. The licensee examined the restraint and found it to be below the interpass temperature limit. For corrective action, the licensee committed to review all contractor pre-heat procedures to assure that both minimum and maximum temperature limits will be monitored and documented. The inspector will verify the fulfillment of this commitment during a future inspection (84-09-01).

The inspector observed that debris, mostly pieces of cut tie wire, had entered cable tray 2TK5026 from adjacent fire protection coating activity. The inspector notified the licensee of the condition and immediate steps were taken to clean out the cable trays. The inspector subsequently reviewed SWEC Inspection Report (IR) E4007361 which documents the cable tray cleanliness and subsequent removal of the debris and SWEC IR S4027457 which was generated to note that the fire coating application sub-contractor had not cleaned up the debris. The inspector will monitor the effectiveness of preventing debris from entering similar raceways during future inspections (84-09-02).

The inspector reviewed the SWEC training department and SWEC Site Engineering Group (SEG) training matrices. He observed that inconsistencies existed as to whether training courses were required or optional for some personnel within SEG. The licensee corrected the SEG training matrix to reflect that SEG engineers are required to participate in training regarding Engineering and Design Change Requests (E&DCRs), Advance Change Notices (ACNs) and Nonconformance and Disposition (N&D) reports. The inspector was informed that engineering personnel had been routinely participating in these classes.

The inspector reviewed the SWEC procedure regarding the evaluation of rebar cuts. All rebar cuts within safety related structures are dispositioned by SWEC Cherry Hill design engineers. Specific criteria exists to review the cut requests. The inspector was informed that Cherry Hill maintains cut rebar logbooks and associated drawings. The inspector had no further questions on the handling of rebar cut requests.

During the inspection period the inspector received notification that the Rockbestos Company had filed a 10CFR Part 21 report with the NRC in regards to possible insulation damage to 12 reels of Class IE cable sent to the Nine Mile Point - 2 site. The inspector ascertained that the licensee had received this notification and had made a followup 10CFR 50.55 (e) report to Region I.

3. Licensee Action on Previously Identified Items

a. (Closed) VIOLATION (81-13-01B): Insufficient training for subcontractor employees. Stone and Webster Engineering Corporation (SWEC) assigned a Training Department Coordinator to the site. Training matrices were developed which outlined the necessary training for subcontractors working within the SWEC QA program. A computerized program and database was developed which tracks all site employees and documents their completed training status. Monthly training programs are now distributed which denote classes available, such that supervisors can assign appropriate employees. A training assessment was performed by SWEC which identified that a lower percentage of time was devoted to training at the NMP-2 site in relationship to other SWEC sites. Additional training was accomplished which eliminated the disparity between site training time. **This item is closed.**

b. (Closed) VIOLATION (81-13-01C): Over reliance upon contractor construction personnel to monitor quality activities. SWEC QC has increased performance of structural steel weld fit up inspections to a rate of over 50%. The QC inspection plan has been modified to assure that the 50% inspection rate is a minimum level. The QC frequency of performing concrete curing inspections has been increased in accordance with ANSI N45.2.5. SWEC QC performed periodic surveillances to assure that Measuring and Test Equipment (M&TE) held by construction personnel were properly utilized, handled and stored. Training programs have been developed for construction personnel regarding proper control of M&TE. This item is closed.

c. (Closed) VIOLATION (81-13-01E): Untimely SWEC corrective action in response to Niagara Mohawk Power Corporation (NMPC) audit findings. NMPC QA procedure 16.40 was issued with a built-in escalation feature so that in the event that a satisfactory response is not received to a NMPC Nonconformance Report (NR), the issue is escalated to upper management for resolution. A review of the NMPC NR trend analysis report dated September 30, 1983, showed a trend of more timely responses and that NR closeout has been accomplished in a shorter period than for NRs generated in 1981. The NMPC construction QA program has recently been restructured. The new procedures provide for management escalation of both NMPC audit and surveillance findings in the event of untimely or unsatisfactory response by SWEC. This item is closed.

d. (Closed) VIOLATION (81-13-01G): Licensee QA program deficiencies. In accordance with corporate NMPC directive, the pay and mileage incentives were retroactively applied to personnel within the QA department. These benefits were also provided to all new QA employees at the NMP-2 site. The licensee has stated that all NMPC QA employees involved with NMP-2 have access to the site either through permanent badging or temporary visitor access. The site QA staff has been augmented with additional experienced personnel. Additional QA management has been provided in the form of a corporate QA director and a site construction QA manager. As of November 1983, the five original QA staff members who were onsite during inspection 81-13 were still assigned to the site QA staff. Employee longevity indicates that the previous high staff turnover rates have been rectified. During NRC inspection 83-18, it was found that the licensee QA program was not effectively implemented. The licensee actions to NRC open items resulting during the construction appraisal team inspection (50-410/83-18) will be evaluated at a future date in regards to corrective action implementation. This item is closed.

e. (Closed) UNRESOLVED (82-09-01): Improper cable tray cantilever lengths and drawing hold system implementation. The inspector reviewed Engineering and Design Coordination Reports (E&DCRs) P01318 and P01403. These documents identified the locations of excessive cable tray cantilever lengths beyond a support. Drawing holds were initiated against the appropriate design documents. SWEC engineering at Cherry Hill conducted training on procedure DP-E-30.9-0 "Drawing Hold Procedure" as confirmed by NRC vendor inspection report 99900509/83-01. E&DCRs have been written by SWEC engineering to address the disposition of the locations of excessive overhang. SWEC QC will assure implementation of the promulgated design during normal inspection of the raceways. The current criteria established the maximum overhang to be 36" beyond a tray support. This item is closed.

f. (Closed) UNRESOLVED (83-02-04): Instrumentation support drawings in conflict with generic qualification design. The inspector reviewed E&DCR C 42343 which corrected the design qualifier notation for the two support drawings which had the discrepancy. SWEC site engineering reviewed 29 additional instrumentation supports and did not identify any further discrepancies to the qualification design. The inspector reviewed the log documenting this engineering review. The inspector randomly reviewed BZ-420BT which identified the design qualification to be BZ-407PB. The qualification design and the support were found to be consistent. This item is closed.

g. (Closed) UNRESOLVED (83-03-01): Installation and inspection requirements for Kellum grips. The inspector reviewed E&DCRs F00831 and F01601 which direct the grips to be installed in accordance with the manufacturers instructions, the electrical specification E061A has been revised to reflect this information. SWEC QC inspection plan N20E061AFA025 has been revised to reflect the necessary criteria for QC to inspect the cable Kellums grips. The engineering direction provides the required steps to retrofit the Kellums grips where required on previously pulled cable. This item is closed.

h. (Closed) FOLLOWUP ITEM (83-12-02): Installation of cable connector bracket assemblies to Unistrut channel. The licensee determined that General Electric (GE) design record file H 13-0071-15 has been amended to reflect that two bolts provide adequate support for the bracket and that three bolt installations are not detrimental. This item is closed.

i. (Closed) UNRESOLVED (83-12-04): Welding of structural steel shim plate. The observed condition was documented on Nonconformance and Disposition (N&D) 6803. The welding was accepted-as-is based on the fact the connection function was not affected. SWEC QC verified acceptable weld fillet size as documented on Inspection Reports W3021618 and W3021643. This item is closed.

j. (Closed) FOLLOWUP ITEM (83-17-03): Material traceability records for piping welds. ITT-Grinnell (ITT) ascertained that the documentation for field weld 13 Iso. 47-1 had been improperly transcribed. The documentation listed the heat number as 464B-131 when in fact it should have been 4644B-131. The QC inspector was retrained as to entering of proper heat numbers. For weld 12 on Iso.57-2, ITT determined that the sales number had been inserted in lieu of the heat number. The weld records for both field welds were corrected by ITT. ITT will review other weld documentation records during the turnover review process to identify and correct other instances where the sales number had been improperly entered on the weld documentation. This item is closed.

k. (Closed) CONSTRUCTION DEFICIENCY REPORT (83-00-05): Undersized welds on PGCC floor module fillet welds. The weld design had specified ¼ in. fillet welds but the licensee had identified the existence of 5/32 in. welds on the floor modules. GE inspected the accessible floor module welds to scope the weld size as documented on inspection report RAG280. The undersize welds were found to be acceptable by analysis. After the fabrication of the floor modules, GE has held training sessions for welders and inspectors on weld details, applicable procedures and drawing interpretation. The GE weld inspection procedure has been revised to include weld size verification with fillet gages. This item is closed.

l. (Closed) CONSTRUCTION DEFICIENCY REPORT (83-00-08): Control Rod Drive (CRD) system clamps were not ASME qualified. The inspector reviewed the actions taken to correct the deficiency of non-qualified shipping clamps having been installed on the CRD system. He reviewed GE drawing 769E377; GE Field Deviation and Disposition Request (FDDR) KGI-0127, Revision 0,1,2,3,4; GE FDDR KGI-0136 Revision 0 and 1; SWEC Inspection Report M3020902; EEDCR, P12201, P12201A and P12166; and SWEC Inspection Report X 3000781. These documents provide for the removal, redesign and replacement of the shipping clamps with ASME NF qualified hardware. All of the original shipping clamps have been removed and discarded and SWEC designed clamps have been installed where required. This item is closed.

m. (Closed) CONSTRUCTION DEFICIENCY REPORT (83-00-22): Seismic adequacy of the Control Building interior partitions. The licensee determined that the partitions had not been analyzed previously for seismic loads. The partitions were reanalyzed and redesigned in accordance with SWEC calculation A46-TAB1 which considered seismic loads. E&DCRs P40689 and F40943 transmitted the new partition design criteria to the field such that the seismic partitions could be installed. This item is closed.

n. (Closed) VIOLATION (1-83-005): Intimidation and restriction of quality control personnel. NRC inspection Report 83-12 documents a verification that the statements were retracted by the contractor ITT, and that employees acknowledge their ability to surface problems to the attention of NRC. The inspector has been informed by the licensee that the ITT VP-QA was counseled on QA organizational freedom and unrestricted NRC access. NMPC and SWEC have distributed literature to all site employees which amplifies the right of free access to the NRC. This literature was disseminated to employees at the close of a workday and was further attached to all paychecks on February 8, 1984. NMPC QA has developed surveillance checklist G-001 "Surveillance of QA/QC Personnel at Nine Mile Point Unit 2" which will be performed on a periodic sampling basis to ascertain whether quality personnel have been intimidated. This item is closed.

o. (Closed) CONSTRUCTION DEFICIENCY REPORT (84-00-12): Improperly torqued hardware on Foxboro panel filler assemblies. The licensee identified nine Foxboro supplied D0126SA panel filler assemblies which were torqued to questionable values. E&DCR C42803 directed that the screws holding the filler and load plates were to be torqued to 24-28 ft.-lb. SWEC

Inspection Report (IR) E4015639 documents the torque verification and rework of the screws which were not initially torqued to adequate values by the vendor. This item is closed.

p. (Closed) FOLLOWUP ITEM (84-05-04): Review of spent fuel pool heat exchanger support planner sheets. The inspector reviewed the pertinent weld data sheets for assurance that the activities were completed under the auspices of the ASME control program. This item is closed.

4. Allegations

During the inspection period the inspectors conducted inspections and interviews in response to allegations presented to the NRC, additionally the inspectors monitored licensee actions resulting from the presentation of selected issues to the licensee as noted below:

a. (RI-84-A-0081) The NRC received an allegation that conduit installations located in the Main Steam Isolation Valve (MSIV) area were improperly supported such that the cables within the conduit were being overstressed. The inspector toured the MSIV area and examined the installed conduits and noted the safety related raceway displayed no apparent deficiencies. Additionally, no Class 1E safety related cables were observed to have been pulled through the conduits. No deficiencies were identified during the followup on this allegation.

b. (RI-84-A-0086) The NRC received an allegation that NMPC corporate auditors had been harassed as a result of their having generated negative audit findings. The inspector interviewed the auditor and reviewed related documentation supplied by the alleger. This allegation remains under evaluation.

c. (RI-84-A-0075) The NRC received an allegation of improprieties in the electrical termination area. The alleger identified the following concerns:

-- That power cable terminations have been improperly made to transformer bus bars of tin plated aluminum material without providing the necessary bolting hardware.

-- That craft have bypassed QC holdpoints through the application of heatshrink sleeves over crimped lugs prior to QC visual examination of the lugs.

-- That craft have crimped lugs without the presence of a QC inspector.

-- That construction has recalled in-process documentation prior to QC having generated an unsatisfactory inspection report.

-- That the alleger's signature was forged on work tracking documentation.

-- That the alleger had been intimidated both by his immediate supervisor and contractor engineers during the process of identifying

the concern of dissimilar bus bar material.

The inspector coordinated a meeting during which the alleger expressed the above concerns to NMPC QA so that the alleged deficiencies could be promptly investigated and corrected. The licensee's followup provided the following responses to the alleger's concerns:

-- SWEC QC field inspection identified several instances of dissimilar transformer bus bar material and improper bolting hardware as documented in Inspection Reports E4007319, E4007353 and E4K00486. SWEC has issued Corrective Action Request (CAR) AA002 to document the improper termination bolting materials. SWEC has committed to review applicable vendor specifications to verify bus bar material and perform reinspections of the field connections.

-- Additionally, SWEC reviewed inspections conducted between January 1984 and May 1984. During this timeframe SWEC determined: that 3995 cables were inspected with 14 cases of bypassed hold points; 779 cable terminations were inspected with 11 cases of bypassed hold points; and 104 electrical equipment inspections were conducted with 4 bypassed hold points. As a result of these findings SWEC electrical construction committed to issue a memorandum to the craft personnel to reiterate the adherence to QC holdpoints during the installation process.

-- The SWEC QC inspection personnel were provided additional training on the use of work tracking documents. The training encompassed the use of inspection report documents and the proper way to document unsatisfactory conditions.

-- SWEC management committed to issue a memorandum to personnel regarding the interface between QC personnel and other SWEC departments.

Two unresolved issues remain pending licensee response and further NRC followup. The licensee has been requested to provide documentation regarding the alleger's hardware concerns generated prior to the alleger having contacted the NRC. (84-09-03) The NRC will conduct additional followup to ascertain whether the alleger was intimidated by either SWEC engineering or QC personnel (84-09-04).

d. (RI-84-A-0061) The NRC was informed that audit findings resulting from NMPC corporate audit number four had been edited and that the participating auditors had been harassed. The NRC inspector subsequently obtained: a draft copy of audit number four; the final audit number four report; and NMPC correspondence which forwarded direction that the two lead auditors who participated in audit four be decertified.

The inspector reviewed the nonconformances which document deficient conditions identified within the draft and final versions of the audit and ascertained that the technical deficiencies noted were similar for both audit reports. The inspector also notes that the NMPC site QA organization which was reviewed during audit number four has subsequently been completely restructured, additionally new QA procedures have been issued which replace the deficient systems identified in audit four. Resulting

from NMPC review of the issues, the licensee committed to reinstate the lead auditor status of the two auditors involved in audit four.

The inspector noted during his review that the draft audit recommended the findings be reviewed for reportability under 10CFR 50.55(e). No documentation could be produced by the licensee to demonstrate a timely review of this issue. This constitutes a further example of a deficient reportability program as identified within NRC Inspection Report 84-01, violation 84-01-06. The site and corporate reportability system has subsequently been revised by the licensee and will be evaluated during the review of licensee corrective action to violation 84-01-06.

5. Corrective Action Programs

The inspector reviewed the following documents which define QA/QC responsibility for identification, trending and application of corrective action to identified nonconformances:

-- Nine Mile Point Unit 2 FSAR Section 1.8
-- Nine Mile Point Unit 2 PSAR Section D.3.16 and D.3.17
-- Regulatory Guide 1.74
-- ANSI N45.2.10
-- SWEC QS-15.1 "Nonconformance and Disposition Report"
-- SWEC QS-14.2 "Inspection Report System"
-- SWEC QCI 10.08 "Surveillance Inspections"
-- SWEC QCI-15.1 "Category I N&D Nonconformance Cause Analysis"
-- SWEC QCI-16.01 "Short Term Trend Analysis
-- SWEC FQC Monthly Quality Assurance Department Reports covering period from January 1983 - May 1984.

The inspector noted the PSAR states that nonconforming conditions shall be analyzed to develop corrective action measures. These corrective actions shall be implemented to control and prevent recurring discrepancies. The inspector reviewed the SWEC topical QA manual which describes that nonconformances will be documented on either an inspection report or a Nonconformance and Disposition (N&D) report depending on whether engineering resolution is required.

The inspector reviewed QCI 10.08 regarding the conduct of surveillance inspections. The QCI identified that for reject rates in excess of ten percent that either the frequency or percentage of inspections should be increased. The inspector interviewed SWEC personnel and determined that the intent was to maintain reject rates below the ten percent level and that rates above ten percent were considered to be indicative of quality problems.

The inspector reviewed SWEC QC data published within the monthly QC deparument reports. This data lists the number of QC inspections performed and details the number of reject inspections for various types of installations. The inspector recorded reject rates in excess of fifteen percent over a seventeen month period. A summary of the data is tabulated below:

| Commodity | Reject Rate Range (% of Inspections) | Number of Months Reject Rate Identified |
|---|---|---|
| Exposed Raceway | 17-43 | 9 |
| Cable Pulls | 17-58 | 6 |
| HYAC Duct In-process | 20-87 | 9 |
| Electrical Equipment Installation | 23-47 | 8 |
| Cable Terminations | 20-97 | 8 |
| Preventive Maintenance | 16-61 | 10 |
| Storage & Housekeeping | 22-72 | 13 |

The data revealed that within the commodity groups excessive deficiency rates are recurrent. This trend indicates that installations are not initially fabricated in accordance with specifications and drawings and relies upon quality control to inspect quality into the installation. The failure of the SWEC QA program to assure effective corrective action implementation to prevent recurring deficiencies is a violation of 10CFR50, Appendix B, Criterion XVI. (84-09-05).

6. Electrical Penetrations

The inspector reviewed the following documents which contain installation criteria for containment electrical penetrations:

- -- NMP 2 FSAR Sections 1.8, 3.8
- -- Regulatory Guide 1.19 "Nondestructive Examination of Primary Containment Liner Welds"
- -- ASME Div I, Section III; NE
- -- Specification E021P "Electrical Penetrations
- -- Specification P283B "Shop Fabrication and Field Erection of Primary Containment Steel Plate Liner"
- -- SWEC Drawing 12177-EV-1J-11 "Primary Containment Electrical Penetrations"
- -- Conax Corp Manual IPS-636 "Installation and Maintenance Manual for Electric Penetration Assemblies for NMP-2"
- -- Graver drawing NL-10806-4 "Sectional Elevation and Details of Multiple Electrical Penetration Assembly P196"

-- Chicago Bridge and Iron Company (CB&I) drawing 434-1 "Shop Assembly Penetration Z201 thru Z210"

a. The inspector noted that CB&I drawing 434-1 requires CB&I to examine weld H of penetrations Z-201 to Z-210 by both radiography and magnetic particle methods. To verify this requirement the inspector reviewed selected CB&I inspection records as follows:

| Penetration | NDE Inspection Performed on Weld H |
|---|---|
| Z-202 | Radiography only |
| Z-203 | Radiography and magnetic particle examination of repair areas |
| Z-204 | Radiography and magnetic particle examination of repair areas |
| Z-208 | Radiography only |
| Z-209 | Radiography only |

Contrary to the inspection requirements of CP&I drawing 434-1, CB&I records indicate partial surface examinations of repair areas and only volumetric examinations of certain welds. The failure to perform the requisite NDE examinations is a violation of 10CFR50, Appendix B, Criterion X. (84-09-06)

b. SWEC Specification E021P requires that the welding of the penetration embedment plate to the containment liner plate be examined by spot radiography and either magnetic particle or liquid penetrant methods. The inspector reviewed the CB&I inspection documentation for penetration Z-216 and observed that no spot radiography was performed for the embedment to containment liner weld. The inspector was informed that spot radiography was applied to particular welders for the first 10 feet of weld and 10 inch segments from each 40 foot interval beyond the initial 10 feet. He was informed that a record book is maintained by CB&I to support the fact that penetration Z-216 weld was not radiographed. This concern regarding the absence of spot radiography for weld Z-216 is unresolved pending review by the inspector of the CB&I weld logbook and confirmation from SWEC engineering as to the intended NDE requirements for the embedment to containment liner welds. (84-09-07)

7. Component Supports

The inspector reviewed SWEC drawing ES-53P-7 and E&DCR P12829. The documents describe the spent fuel pool heat exchanger support installation requirements. The support was originally classified as ASME NF. The inspector verified the existence of the appropriate ASME weld planner sheets. The inspector noted that E&DCR P12829 reclassified portions of the support as non-ASME. He noted that the inspection records had been marked void and subsequently reinstated. SWEC QA issued a Corrective Action Request to identify and prevent recurrence of the inspection report void stamping.

The inspector reviewed a River Bend Station correspondence regarding the definition of NF boundaries. He was informed that a similar FSAR

amendment is forthcoming for the Nine Mile Point Unit 2 Station. The inspector has no questions at this time in regards to the spent fuel pool heat exchanger supports or the generic NF boundary definition.

8. Pipe Whip Restraints

a. The inspector reviewed the following documents which pertain to the installation of main steam line whip restraints:

-- Specification P301X
-- SWEC drawing EV-10H-2 "Pipe Rupture Restraint MSS Reactor Building"
-- SWEC drawing EY-107K-3 "Pipe Rupture Restraints All Systems OMNI Washer Details"

He examined whip restraint MSS-PRS-024 which had an ITT inspection tag affixed to the structure. The bolting hardware was observed to be in variance with the above drawings. The inspector interviewed ITT personnel and reviewed records to indicate that only the PRS portion of the restraint has been inspected which is exclusive of the bolting hardware. The inspector was informed that the stainless steel studs and aluminum energy absorption material will be installed after adjacent welding activities have been completed.

The inspector has no questions at this time.

b. The inspector reviewed the following design criteria and RCI inspection documents for selected reactor recirculation line restraints:

-- GE drawing 767E119 "Recirc.Suspension Hangers Installation Kit - Recirc. Loop Pipe Whip RST"
-- GE drawing 131C8495 "Pipe Whip Restraint (L)"
-- GE Specification 22A2598 "Installation Specification Pipe Whip Restraint"
-- RCI W-8 "Process Requirements Sheet for Snubbers & Pipe Whip Attachments Requiring the Use of Heavy Weldment Criteria"

The inspector examined the welding and documentation to date for restraints RCR-10 and RCR-20. The work was found to be in accordance with the design criteria.

The inspector has no further questions at this time regarding the RCI installed restraints.

9. Followup to Construction Appraisal Team Inspection

During the conduct of this inspection, the inspector monitored the corrective actions implemented by the licensee in response to the Construction Appraisal Team (CAT) inspection. The CAT inspection findings are documented within NRC inspection report 50-410/83-18 issued on January 31, 1984.

The licensee installed several 3/4 inch and 1 inch diameter Hilti bolts in the condensate building floor slab. The concrete slab was ascertained by the licensee to be representative of the concrete mix typically utilized within Category I areas of the plant. The installed Hilti bolts were pull tested to values of four times their design load. The inspector observed the pull tests for two bolts. The inspector observed that neither the concrete nor Hilti bolt failed. The maximum slippage of the Hilti bolt at the maximum loading was 3/4 inch.

The inspector reviewed the re-inspection program applied to the Cives Steel structural welds. The licensee had utilized a statistical sampling plan as defined within MIL-STD 414 "Sampling Procedures and Tables for Inspection by Variables for Percent Defective". The inspector noted that the individual reinspection deficiencies had been dispositioned accept-as-is by SWEC engineering. Review of the sampling plan and the obtained data indicated that further analysis would be required by the licensee to determine the acceptability of the Cives weld lot.

The licensee QA verification of CAT deficiency corrective action plans was initiated. The NMPC QA verification effort identified sever l inconsistencies between the planned and accomplished corrective actions.

The inspector has no questions at this time regarding the CAT followup efforts.

10. Unresolved Items

Unresolved items are matters for which more information is required in order to ascertain whether they are acceptable items, violations or deviations. Unresolved items disclosed during the inspection are discussed in paragraph 4c. and 6b.

11. Management Meetings

At periodic intervals during the course of this inspection, meetings were held with senior plant management to discuss the scope and findings of this inspection. The inspector attended periodic meetings with the NMPC QA manager and the project director to discuss the status of CAT corrective actions. Apparent violations of NRC requirements were discussed with licensee plant management during exit meetings held on June 8 and June 15, 1984.