U.S. NUCLEAR REGULATORY COMMISSION REGION I

Report No.

50-410/86-52

Docket No.

50-410

License No.

CPPR-112

Category B

Licensee:

Niagara Mohawk Power Corporation

300 Erie Boulevard West Syracuse, New York 13202

Facility:

Nine Mile Point 2

Locations:

Scriba, New York

King of Prussia, Pennsylvania

Inspection

Dates:

August 26-28, 1986 and September 8-12, 1986

Meeting

Dates:

August 29, 1986 and September 4, 1986

Team Leader:

C. Linville, Chief RPS 2C, DRP

11/4/86 date

Inspectors:

Dr. P. K. Eapen, Chief, QA Section, DRS

R. Gramm, Senior Resident Inspector

J. Stair, Resident Inspector

Approved by:

R. M. Gallo, Chief, Projects Branch 2 DRP

11/5/86

Inspection Summary: Inspections on August 26-29, and September 8-12, 1986 and Management Meetings on August 28, 1986, and September 4, 1986 (Report No. 50-410/86-52)

Special announced team inspection to evaluate the licensee's position that the programmatic quality assurance (QA) issues identified by Quality First Program (Q1P) concerns 86-64 A to G have not resulted in hardware deficiencies or impeded the ability of QA department personnel to identify or correct hardware deficiencies. The inspection involved review of licensee records and interviews with QA department personnel. It included 140 hours on site by 2 section chiefs, one senior resident inspector and one resident inspector.

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1.0 <u>Inspection Conclusions</u>

- 1.1 The following programmatic QA weaknesses were identified by the NRC in addition to those identified by the Q1P investigation:
 - (1) Q1P review of QA concerns lacked active independent management involvement similar to that normally provided by offsite review committees (Section 4.0).
 - (2) Bypassed QC hold points were not trended for frequency, repeat offenders, or repeat by discipline (Section 6.6).
 - (3) QC hold points in maintenance procedures and related QC check-lists were not consistent (Section 6.3).
- 1.2 As a result of NRC reviews the following QA program weaknesses previously identified by the licensee's Q1P investigation were clarified and confirmed:
 - (1) Limits on troubleshooting activities performed under Deficiency Reports (DRs) and Work Requests (WRs) are not well defined, and QA Engineering is not providing clearly established inspection attributes to QC inspectors. (Sections 5.0, 6.1 and 6.2)
 - (2) While QA department personnel have been adequately trained on QA procedures, there has been no formal training on implementing policy guidance disseminated by numerous memoranda. In addition, there is no vehicle in use for continuing training of new contractor personnel or on new policy guidance. (Section 5.0, 6.6 and 6.9)
- 1.3 None of the 26 QA department personnel interviewed by inspection team members knew of any uncorrected hardware deficiencies or believed that they had been impeded from identifying or correcting any hardware deficiencies because of programmatic QA weaknesses.
- 1.4 NRC reviews noted evidence that QA overchecks of QC inspection activities have been identifying and assuring correction of hardware deficiencies. (Section 7.0)

2.0 Background

2.1 QC Inspector Certification

On August 20, 1986 the NRC received allegations, that NMPC had improperly certified two QC inspectors, that NMPC QC inspectors had performed inspections outside their certified discipline, and that the NMPC Quality First Program had not been responsive. NRC Region I conducted an allegation review panel to document recipt of the concerns and determine appropriate followup actions. As a result, on

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August 26 and 27 an NRC inspector reviewed NMPC QA procedures, interviewed QC personnel, reviewed QA records, and accompanied QC personnel during the conduct of inspections. Conclusions reached relative to the allegations are described in section 8.0.

2.2 Quality First Program Concern 86-64

Subsequently, on August 28, an NRC inspector reviewed Quality First Program (Q1P) records and noted concerns 86-64 A thru G, which addressed the following issues regarding NMPC QC activities:

- Lack of management support.
- (2) Lack of supervisory guidance.
- (3) Lack of procedural training.
- (4) Lack of procedural adherence by Startup and Test, and QA.
- (5) Inconsistent procedural implementation.
- (6) Inadequate QA communication channels.
- (7) Lack of QA management feedback to inspector suggestions or concerns.
- (8) Premature Deficiency Report closure.
- (9) Bypassed QC witness points.

The Q1P findings had been forwarded to senior NMPC management for resolution. On August 28, Region I management was informed of the above concerns regarding the NMPC QA/QC program implementation. After becoming aware of these concerns, management meetings between Region I and NMPC were held on August 29 and September 4. A list of attendees is included as Attachment 1.

NMPC concluded that while the concerns of the NMP2 employees had raised some valid programmatic concerns which were being addressed, these concerns had not resulted in any unsatisfactory hardware. These conclusions were based on Q1P interviews with all QC inspectors, both NMPC personnel and contractors, which did not identify any unresolved hardware issues. In addition, NMPC stated that the QC function was overchecked by QA audits, QA surveillances, and QA engineering. The licensee position was documented in a letter to NRC Region I dated September 1, 1986 and in Attachment 2 to this report which was presented at the September 4, 1986 meeting.

NMPC's initial corrective actions in response to the Q1P concerns included meetings between the Vice President, QA and all levels in the QA department to explain departmental policy relative to the concerns addressed and to direct field involvement of QA engineers in defining inspection criteria for troubleshooting activities.

In response to a question during the September 4, 1986 meeting regarding how the licensee could be sure that QA department personnel were not being impeded from identifying hardware issues by these programmatic weaknesses, the licensee conducted a survey of all QA department personnel with negative results as described in a September 9, 1986 letter to NRC Region I

3.0 Inspection Method and Scope

The inspectors independently evaluated the concerns of former Nine Mile Point Unit 2 (NMP2) employees related to programmatic weaknesses in quality control (QC) inspections of preoperational testing and the impact of these concerns on the acceptability of installed and tested hardware. These concerns had previously been evaluated by the licensee's Quality First Program (Q1P) as concern 86-64, which concluded that the concerns represented valid programmatic quality assurance (QA) program weaknesses but had not adversely affected the quality of the installed hardware. Also, the inspection evaluated portions of the QA program, other than QC, to determine whether their overcheck functions had been effectively performed.

The inspectors reviewed the background information developed by the Q1P investigation, interviewed a sample of NMP2 QC inspectors including contractors, NMPC QC inspectors, supervision and management, and verified the resolution of selected quality issues for which the acceptability could not be determined through the QC interview and records review process. In addition, the inspectors interviewed a sample of personnel from other QA organizational elements including NMP2 Startup/Operations Surveillance, NMP2 Quality Engineering, and NMP2 QA Audits to determine whether the programmatic weaknesses identified by Q1P in the QC group impacted the groups providing the overchecks of the QC program.

4.0 Q1P Review of Concerns 86-64 A to G

Based on a review of the files and discussions with the Q1P manager and interviewer, the Q1P review of concerns 86-64 A to G generally proceeded in accordance with QAP 16.70. The planning of the investigation of the concerns was thorough and the conclusions were sound. However, several of the QA personnel interviewed by NRC inspectors questioned the independence of Q1P in reviewing concerns relating to the QA program. The provisions to assure independent management oversight of such concerns by the Administrative Assistant to the President involved merely informing him of such activities rather than active involvement.

It is not evident that the corrective action plan, proposed by the Vice President, QA for the valid Q1P concerns, received the independent management review and approval required by QAP 16.70 before it was submitted to the NRC by letter dated September 9, 1986. However, active participation by the President and Senior Vice President in the corrective action plan after the NRC became involved is acknowledged. The licensee response to this issue will be reviewed during a subsequent inspection. (50-410/86-52-01)

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5.0 NRC Interviews

During this inspection, 26 QA department personnel were interviewed by the NRC including 12 QC inspectors, 3 QA Engineers, 2 QA Surveillance inspectors, 2 QA Auditors, and 7 QA management and supervisory personnel. The interviews included questions in the following areas:

- Position Responsibilities
- Qualifications
- o Training
- QA Program Effectiveness
- QC Inspection Activities
- QA Surveillance Activities
- QA Audits
- QA Engineering Activities.
- Supervisory Support and Guidance
- Working relationships with other parts of QA Department
- Working relationships with other parts of the site organization
- Work experiences
- Concerns

None of the interviewees knew of any uncorrected hardware deficiencies. Only one individual believed that there could be hardware deficiencies which were not identified related to the control of troubleshooting and work activities as discussed in Sections 6.1 and 6.2. The examples discussed do not represent work on safety-related equipment without any QA/QC oversight because there were Deficiency Reports and Work Requests to cover the work, but the guidance to the workers and the inspection criteria were so non-specific that the acceptability of the work required considerable judgement and continuous QC coverage. The individual acknowledged that these issues had been appropriately dispositioned, but was concerned that work of unacceptable quality could occur when the work scope and inspection criteria are not clearly defined in troubleshooting activities. Half of the interviewees expressed this general concern without specific examples. The licensees letter of September 9, 1986 addressed the inspection criteria concern by committing to field involvement of Quality Engineers in developing inspection criteria for troubleshooting, but did not address the responsibility of the line organization to place appropriate limits on workers for such work to assure appropriate engineering review

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prior to work completion. The licensee response to this issue will be reviewed during a subsequent inspection. (50-410/86-52-02)

While there is evidence of formal training on QA procedures, as discussed in section 6.4, half of the interviewees in the QC group believed that the policy guidance for implementing the QA procedures was inconsistent, poorly communicated and confusing. This situation has been aggravated by reassignment of supervisory and management personnel, a reorganization which split the Quality Engineering and Quality Control functions, the turnover of many contractor QC inspectors, the transition from a rigidly defined construction QA program to a very flexible operations QA program, and the replacement of formal QA Instructions for implementing QA procedures by uncontrolled memoranda, verbal guidance or no guidance at all. Although the licensee corrective action described in the September 9, 1986 letter addressed these concerns, on a one time basis, there is no continuing program to assure that new employees receive this information or to assure that future policy changes are appropriately communicated. The licensee response to this issue will be reviewed during a subsequent inspection. (50-410/86-52-03)

Followup on specific concerns raised during the interviews is discussed in section 6.0.

6.0 NRC Followup of Q1P Concerns and Specific Interviewee Concerns

6.1 <u>Control of Troubleshooting Activities</u>

As documented in Q1P concern 86-64F, and discussed with an NRC inspector during an interview, a Quality Control Inspector discovered individuals cutting a hole in safety related panel No. 028 associated with the high pressure core spray system diesel generator, to install a temporary modification for preoperational testing without any documentation to support that work. The NRC inspector spoke with one Startup and Test individual and reviewed the Q1P documentation package relative to this concern. Documentation had been prepared concerning this temporary modification in advance in the form of Engineering and Design Coordination Reports (E & DCRs) 258352 and 258352A; Deficiency Reports (DRs) 11173, 17823, and 19281; Interoffice Correspondence (IOCs), ESEG 86-5-12 and 86-5-7; and Problem Report (PR) 0421 A. DR 18649 which controlled the work had been improperly signed off as completed prior to work completion leading the QC inspector to believe that no documentation covering the work existed. Although the work performed in this case was acceptable, it was not clear to the QC inspector that it would have been without his involvement.

While the finally accepted work was adequate, this is an example for which better definition of the work scope and QC inspection requirements was necessary to assure the quality of safety-related equipment.

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6.2 Control of Work Activities

During an interview, the NRC was informed of a concern relating to the improper control of troubleshooting activities on a RHR service water sample pump 2SWPCAB23B. The inspector reviewed Work Request (WR) 103572, QCIR 2-86-3862 and Corrective Action Request (CAR) 86-1012. The extent to which the maintenance personnel could disassemble the component was not specified on the WR. The pump and motor were apparently disassembled without the reference to the associated vendor manual. This work was an example where direct involvement of Quality Engineers and work scope definition was necessary to specify the extent of troubleshooting activities. Without the involvement of the QC inspector, it was not clear to the concerned QC inspector that the work on the pump would have been acceptable.

This is another example of a case where the finally accepted work was adequate, but for which better definition of the work scope and QC inspection requirements was necessary to asure the quality of safety related equipment.

6.3 <u>Inconsistent Hold Points Between QC Checklists and Maintenance Procedures</u>

During an interview, the NRC was informed that NMPC maintenance procedures and the applicable NMPC QC checklists do not contain consistent hold points. The inspector reviewed the following checklists and procedures:

<u>Title</u>	QC Checklist and Maintenance Procedure No.
Overhaul of CRD Hydraulic Control Units	N2-MMP-30.3
Overhaul of Control Rod Drive	N2-MMP-30.8
Maintenance. of LPCS Pressure Pump	N2-MMP-32.2
Maintenance of HPCS Pump	N2-MMP-33.1
Maintenance of HPCS Pressure Pump	N2-MMP-33.4
Overhaul of Reactor Core Isolation Cooling Pump	N2-MMP-35.1

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The inspector identified the following discrepancies:

- -- QC Checklist MMP-30.8 attributes 1 through 10 did not have associated QC holdpoints in the maintenance procedure MMP-30.8 data sheet.
- -- Attribute 2 in QC checklists MMP-32.2; 33.1, and 33.4 was not contained in the associated maintenance procedure data sheet.
- -- QC holdpoints in the maintenance procedure data sheets were not included on the associated QC checklists as exemplified by item 7.26.2 and 7.27.2 of MMP-30.8, and Items 7.1.14, 7.3.9, 7.3.10 and 7.5.6 of MMP-33.1.

The inspector's review confirmed the expressed concern that the QC checklists and associated maintenance data sheets are inconsistent. The licensee corrective actions in this area will be reviewed at a later date. (50-410/86-52-04)

6.4 QC Personnel Training

As a followup to QIP concerns 86-64 C and E, the inspectors interviewed site QA and QC personnel and reviewed the adequacy of training and qualification of these personnel. All these personnel were qualified to ANSI N 45.2.6 Level II. The inspector reviewed the training and qualification records of five QC personnel and verified that their education and experience levels met those specified in ANSI N 45.2.6.

Licensee Procedure QAP 2.10 (Revision 7) establishes the training requirements for QA and QC personnel. This program requires initial, on-the-job, and continued training as well as periodic reading assignments. Through a review of selected training records and technical discussion with personnel, the inspector determined that the personnel were qualified and trained in accordance with QAP 2.10, were knowledgeable in the technical requirements of the activities that they monitor, and kept their knowledge level current by completing the required reading of the procedures. In addition to the initial reading of the procedures, the personnel were required to reread these procedures when revised. The inspector noted that the reading was required by the supervisors and proficiency was verified by the supervisors or lead personnel. Adequate time was allocated for the initial reading and rereading. On the average about six procedures had been read by the personnel. In addition to the reading, certain key procedures were discussed with personnel during formal classroom training. The inspector noted that the QC personnel training records reviewed indicated attendance at three or more formal training sessions since June 1986.

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The inspectors determined that the QA and QC personnel were trained on QAPs and that the training records were maintained in accordance with QAP 2.10. No discrepancies were identified.

6.5 Closing of Deficiency Reports (DRs) and Policy Guidance

Q1P concerns 86-64 B and G included several examples in which Deficiency Reports (DRs) had been prematurely closed. The following closed DRs were reviewed by the inspector for which no associated inspection was recorded in the QC DR logbook:

DR	Startup and Test Computer Status	Explanation
10051	Closed	Work performed on WCR 9284
10075	Closed	Deficiency Report 11861 issued
10108	Closed	Cancelled
10109	Closed	Cancelled
10118	Closed	QC determined no inspection necessary
12132	Closed	Worked on multiple DRs
12449	Closed	QC determined no inspection necessary

The inspector reviewed the QC files of open QC checklists for DRs and Work Requests (WRs). The following documents were reviewed:

Open DR in <u>QC File</u>	QCIR	Explanation
15093	2-86-1024	Work previously performed for checklist from EMP-114-1
17088	2-86-1687	Work previously performed with satisfactory checklist
Open WR in QC File	Computer Status	<u>Explanation</u>
3684	Closed	QCIR 2-85-1012 and NCR 2-86-0036 previously issued
100979	Closed	QCIR 2-86-2852 and DR 21202 previously issued
103300	Closed	Inspector found no leaks so WR was closed without any work

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The inspector determined that while the QC logs and files were not consistent making it difficult to verify closure, the DRs and WRs were properly closed in all cases with appropriate QC involvement.

The inspector reviewed Startup Administrative Procedure (SAP) 121A, "Deficiency Reporting System". The procedure requires a final QA review of DRs to ensure proper completion. The inspector discussed the review of DRs with associated Quality Engineering (QE) personnel. The inspector reviewed several logs that indicated QE personnel were fulfilling the procedure requirements. Two programmatic concerns were identified:

- -- The QE staff does not maintain a trend history of DRs that are found unsatisfactory during their document review. For example, instances of bypassed QC holdpoints detected by QE review are not explicitly flagged and trended, although the items are resolved on a case by case basis.
- The inspector was presented QA policy memo 86-001 that described the mechanics of the QE review process. This memo was an example where the general Quality Assurance Procedures (QAPs) did not contain sufficient implementing direction for QA personnel, which resulted in the issuance of the informal memo and verbal instructions.

The licensee responses and corrective actions to the above concerns will be reviewed at a later date. (50-410/86-52-05)

6.6 Follow up on Cables with Outer Jackets Cut

During an NRC interview, one QC inspector stated that in September 1985 he identified that contractor personnel were cutting into the outer jackets of installed cables while trimming back the fire protection foam from the PGCC cables. The contractor personnel used sharp knives to trim back the foam and one cable was cut through to the conductor. DR 05681, E&DCR C 46072 and NMPC NCR 2-85-007 were generated to identify and resolve the concerns associated with cut cables. QC issued Surveillance Report SR-85-10317 to address this concern. The QC inspector who originated this surveillance report did not believe that he had all the facts necessary to accept the corrective actions in December 1985. At that time he believed that the corrective actions were limited to the items discussed in the surveillance report and that an investigation by QC had not been performed to determine the existence of similar problems in other cables. Based on the above, the QC inspector requested that his supervisor resolve this surveillance report. The supervisor closed this surveillance report on December 4, 1985 based on his understanding of planned corrective action in this area which was later documented in a Report of a Problem dated May 27, 1986. However, the supervisor did not explain his reasons for closing this surveillance report to the QC inspector.

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The NRC inspector reviewed this issue to assess the adequacy of licensee actions when a surveillance report was closed out by the initiator's supervisor. This concern was reported to the licensee's architect engineer for resolution in a Report of a Problem dated May 27, 1986. An engineering evaluation was performed, and a decision was made to randomly inspect eighty cables from all affected areas. This inspection was completed on August 12, 1986, and it identified four additional cables that were cut but not through the jacket. The inspector determined that the cuts identified in these four cables were within the allowables established in the licensee specifications. The inspector determined that this licensee action was adequate to resolve the concern identified in the QC Surveillance Report.

The inspector furnished a copy of the licensee's engineering evaluation and additional cable sampling to the QC inspector who had initiated the original QC Surveillance Report. The QC inspector reviewed this additional material and stated that the new analysis and sampling inspection were adequate to address his original concern. He also stated that this additional information would enable him to discuss the disposition of this concern in a positive manner. should the issue surface again. The inspector had no further questions in this regard.

6.7 <u>Use of Uncalibrated Measuring and Test Equipment During Retests</u>

A concern was expressed to the NRC during an interview that Quality Control (QC) inspectors did not verify the use of calibrated measuring and test equipment (M&TE) during retests. An NRC inspector interviewed the QC supervisor and was informed that the requirement for M&TE verification applied to retests. The inspector reviewed the NMPC Quality Control Inspection Report (QCIR) files. Based upon the review of QCIRS 2-86-1314, 2-86-5180 and 2-86-5462 that documented the use of calibrated M&TE during retest activities, the review of additional QCIRS, and the statements of QC supervision, this concern was not substantiated.

6.8 Inadequate Verification of Receipt Inspection

One QC inspector expressed a concern during an NRC interview that QC inspectors were directed by letter NM QA 1735 dated December 16, 1985 not to perform the pre-installation verification (PIV) or to verify receipt inspection of parts from ministock. In addition, he believed that the stockroom had been directed to stop performing receipt inspection of spare parts. Discussions with individuals in the Stores Receipt and Inspection department, along with a review of applicable procedures provided assurance that all parts were inspected upon receipt. In addition, memorandums issued provided direction to verify receipt inspection of parts. NMPC letter NM QA 1735 dated December 16, 1985, which instructed that the PIV not continue, was issued to prevent redundancy of inspection since the verification would be per-

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formed at installation under the Niagara Mohawk Quality Program. In addition, memorandum 9M STQA 85-13 dated December 20, 1985 provided direction to verify receipt inspection of parts. While this concern was unsubstantiated, it is another example of the need for training on policy guidance.

7.0 Followup on QA Overchecks

To determine the involvement and effectiveness of NMPC QA overcheck functions of the test and maintenance activities, the inspectors reviewed the following documents regarding audits, surveillances and corrective actions and discussed them with appropriate managers and supervisors:

- -- NMPC Audits NM-RE-IN-86005, 86008, 86014, and 86017
- -- NMPC Surveillance Reports 86-10510, 10603, 10626, 10640, 10641, 10677, 10605, 10577, 10594, 10452, 10294, 10131, 10124, 10271, 10368, 10453, and 10445.
- -- Corrective Action Requests 86-1000, 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010 and 1014.

The QA audits were detailed and focused on documented compliance with QA program requirements and Preoperational Test procedure requirements. While the audits met the requirements of 10 CFR 50, Appendix B, their usefulness in assessing the effectiveness of program implementation was limited since they involved little in-process observation of work activities or interviews with personnel implementing the programs and focused on after the fact review of records demonstrating compliance with requirements.

The QA surveillance program was well-structured and implemented to assess programmatic effectiveness and identify hardware problems, and assure appropriate corrective action. The surveillances documented an extensive review of preoperational test results. In several instances, test engineers had not processed necessary Deficiency Reports (DRs). As a result of the surveillance program review the DRs were subsequently issued. The surveillance function also had identified problems in controlling the use of red plastic screws to isolate circuits in the control room area and assured correction of the problem. The concerns detected and the scope of corrective actions indicated that satisfactory oversight of the field activities has been maintained.

8.0 QC Inspector Certification

As discussed in section 2.0, the NRC had previously been informed that NMPC had allegedly improperly certified QC inspectors. The inspector reviewed the following documents:

- SWEC and NMPC QC certification records.
- QAP 2.60, "Qualification and Certification of QA Inspection and Test Personnel".

- QAP 2.10, "Training".
- FSAR Table 1.8-1, page 64-67.
- NMPC Quality Assurance Topical Report.
- Regulatory Guide 1.58, "Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel".
- ANSI N45.2.6, "Qualifications of Inspection, Examination, and Testing Personnel for Nuclear Power Plants.

The inspector reviewed the certifications of 6 QC inspectors and determined that they were in accordance with the applicable requirements. The inspector accompanied an electrical inspector during the conduct of a megger test on the Division I diesel generator output breaker. The inspector reviewed the associated work documents and found the QC inspector knowledgeable of the inspection requirements.

The inspector also reviewed approximately 220 QCIRs and identified no instances of QC inspectors performing inspections outside the scope of their certification. The inspector reviewed thirteen additional QCIRs performed by a mechanical QC inspector identified by the alleger as unqualified for some of the inspections he performed and verified that the inspection activities were within the scope of the QC inspector's certification. The inspector determined that the NMPC certification program is in conformance with commitments and requirements, that NMPC inspectors are properly certified, and that the inspectors are performing work within their capabilities. No discrepancies were identified and allegation RI-86-A-099 is not substantiated.

9.0 Exit Interview

The scope and findings summarized on the inspection cover sheet under Inspection Results were discussed with the President, Vice President, QA, and other attendees identified in Attachment 1 at an exit meeting on September 12, 1986. Based on NRC Region I review of this report and discussion held with licensee management at the exit meeting, it was determined that this report does not contain information subject to 10 CFR 2.790 restrictions.

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ATTACHMENT 1 Meeting Attendees

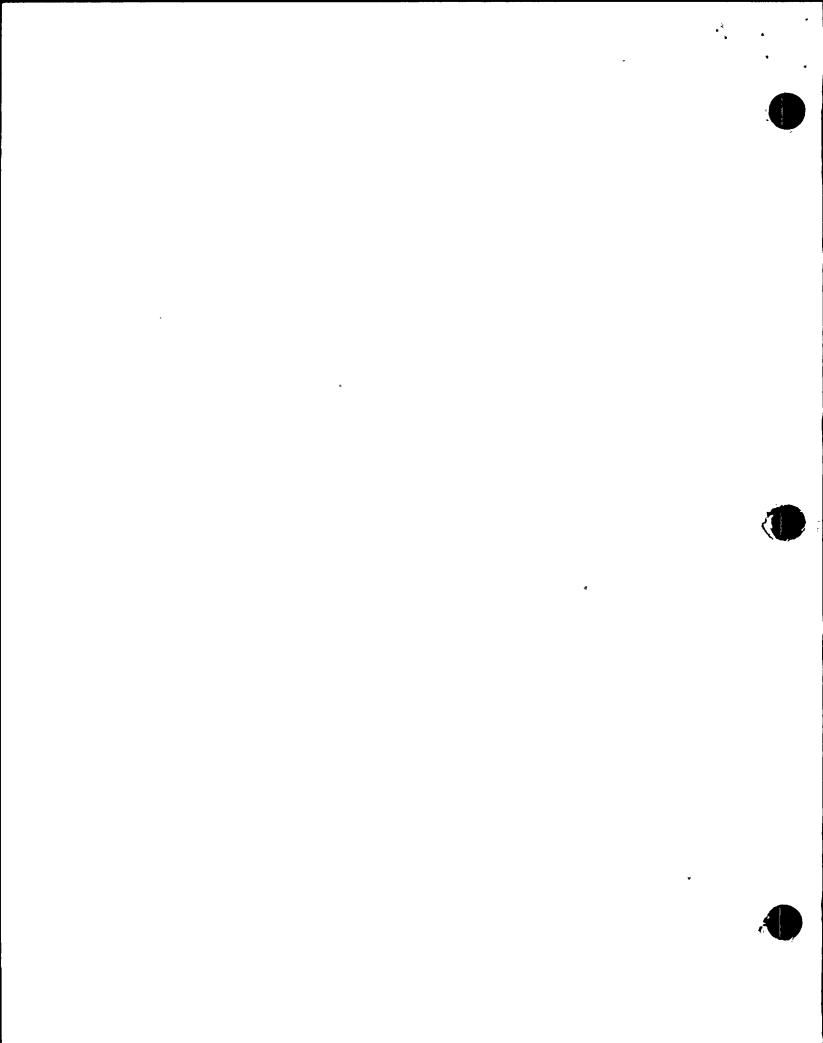
*Meeting <u>key</u>	<u>NMPC</u>
1 2 4 W. Donlon	President
2 4 C. Mangan	Senior Vice President
1 2 4 T. Lempges 1 2 3 4 J. Perry	Vice President, Nuclear Generation
3 4 W. Hansen	Vice President, QA
3 4 C. Beckham	Manager, Nuclear QA Operations
4 G. Doyle	QA Engineer
3 4 J. Buckley	Startup Quality Engineer QC Supervisor
4 J. Shepherd	QC Lead
4 P. Wilde	QA Surveillance Supervisor
	Q1P Manager
3 4 E. Manning	Q1P Interviewer
3 4 A. Kovac 3 4 E. Manning 3 4 T. Gamon 3 4 L. Fenton	Q1P Interviewer
3 4 L. Fenton	QA Auditor lead
12 4 T. Perkins	General Superintendent
4 R. Abbott	Station Superintendent
4 G. Afflerbach	Work Control Manager
4 K. Dahlberg	Maintenance Superintendent
4 R. Mattock	Deputy Project Director
3 4 M. Ray 3 4 I. Weakley	Manager, Special Projects
3 4 I. Weakley	Special Projects
4 G. Griffith	Licensing
4 K. Ward	Manager Consultant Nuclear Design
3 4 B. Hooten	Special Consultant
4 M. Boyle	Nuclear Compliance and Verification
2 4 J. Beratta	Security
3 J. Dillon	Audit/Q1P Senior Supervisor
2 G. Wilson	System Attorney
2 F. McCarthy	Security
2 G. Wilson 2 F. McCarthy 2 D. Kerr 2 S. Wilczek 2 R. Pasternak 2 C. Gresock	Corporate Performance Services
2 S. Wilczek 2 R. Pasternak	Manager Nuclear Technology
2 C Grocock	Manager Nuclear Consulting Services
2 C. Gresock	Manager Nuclear Design

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*Meeting <u>key</u>	ð.	NRC
2 2 1 2 3 4 2 2	T. E. Murley J. Allan W. F. Kane S. Ebneter T. Martin	Regional Administrator Deputy Regional Administrator Director, Division of Reactor Projects (DRP) Director, Division of Reactor Safety (DRS) Director, Division of Radiation Safety and Safeguards (DRSS)
2	W. Johnston S. Collins R. Gallo J. Linville P. K. Eapen G. Meyer W. Cook C. Marschall W. Schmidt	Deputy Director, DRS Deputy Director, DRP Chief, Projects Branch 2, DRP Chief, Reactor Projects Section, 2C DRP Chief, Quality Assurance Section, DRS Project Engineer Senior Resident Inspector Resident Inspector Resident Inspector
<u>OTHER</u>		
4 4 4 3	P. Eddy P. MacEwan J. Drake K. Roenick M. Wetterhahn	PSC Site Representative NYSEG Manager SWEC Startup Special Projects Supervisor PSC Site Representative Attorney, Conner and Wetthahn

*Meeting key

1-August 29, 1986	Management Meeting Attendees
2-September 4, 1986	Management Meeting Attendees
3-September 8, 1986	Entrance Meeting Attendees
4-September 12, 1986	Exit Meeting Attendees

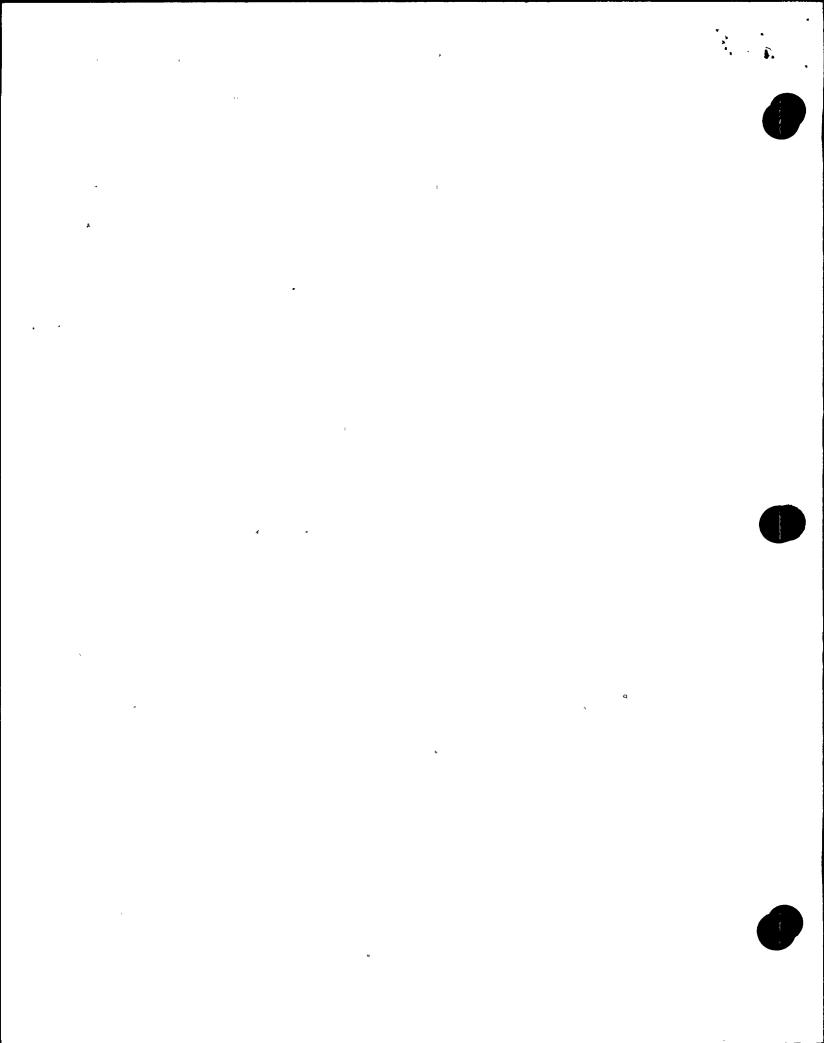


ATTACHMENT 2

NIAGARA MOHAWK
QUALITY FIRST PROGRAM ACTIVITIES

PRESENTATION
TO
U.S. NRC REGION I

SEPTEMBER 4, 1986



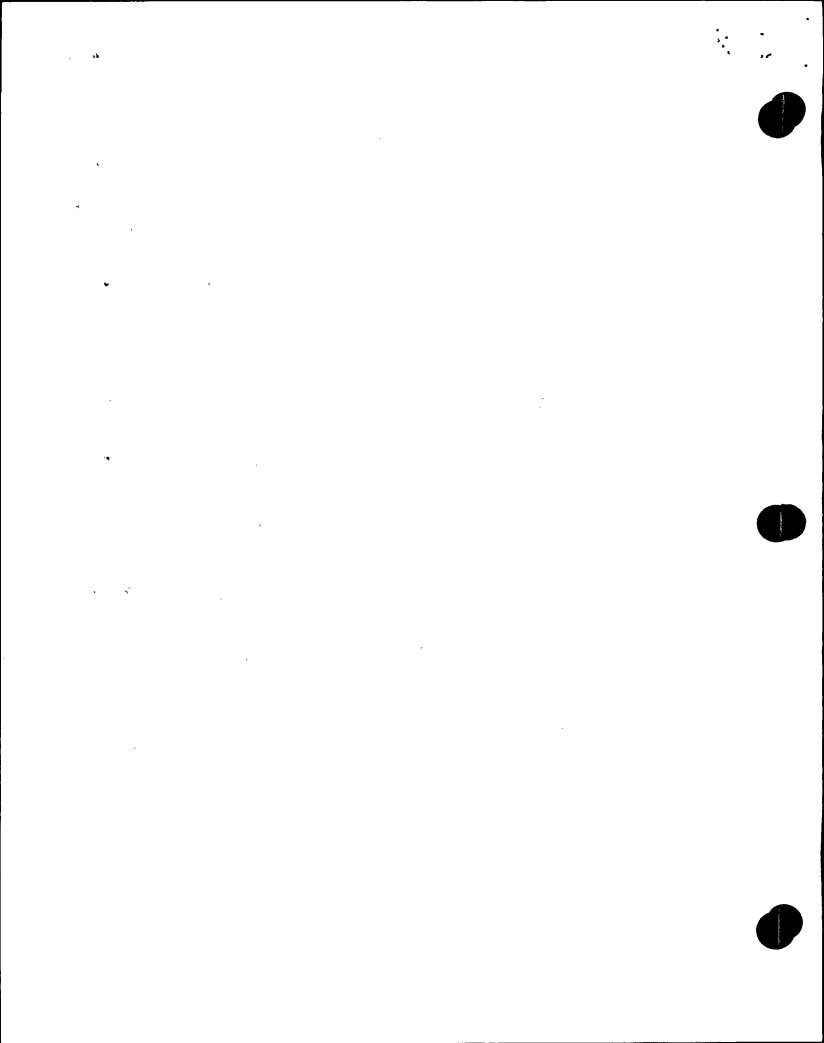
Q1P CONCERNS 86-00064A-G RECEIVED FROM THREE QC CONTRACTORS AT TIME OF TERMINATION

CONCERN NO.	CONCERN	INVESTIGATION RESULTS
A.	NMPC QC MGT. PREVENTING NCR ISSUANCE WHEN DR'S OR PR'S ARE NOT APPROVED.	VALID
B./G.	PR'S* AND DR'S CLOSED WITHOUT PROPER RESOLUTION OF OUTSTANDING IR'S. SU&T PERFORMING UNAUTHORIZED SIGNOFF OF DR'S.	*(INVALID)
c.	LACK OF SUPPORT FROM NM QC MGT. TO SUPPORT QC PEOPLE IMPLEMENTING QC PROGRAM.	VALID
D.	QCIR NO. 2-86-0044 CLASSIFIED CAT 1, UNSAT. ITEMS IDENTIFIED. QCIR IMPROPERLY CLASSED CAT II TO ELIMINATE REINSPECTION.	INVALID
E.	NM QC PEOPLE UNAWARE OF CHANGES IN SAP'S AND QAP'S* (i.e. SAP 1.21A)	VALID *(INVALID)
F.	SULT GIVING VERBAL DIRECTION AND/OR ISSUING MEMOS TO GIVE ENGINEERING DIRECTION AND RESOLUTION OF PR'S AND DR'S AND TEMPORARY MODS. (i.e. 2FPM-PNL129).	

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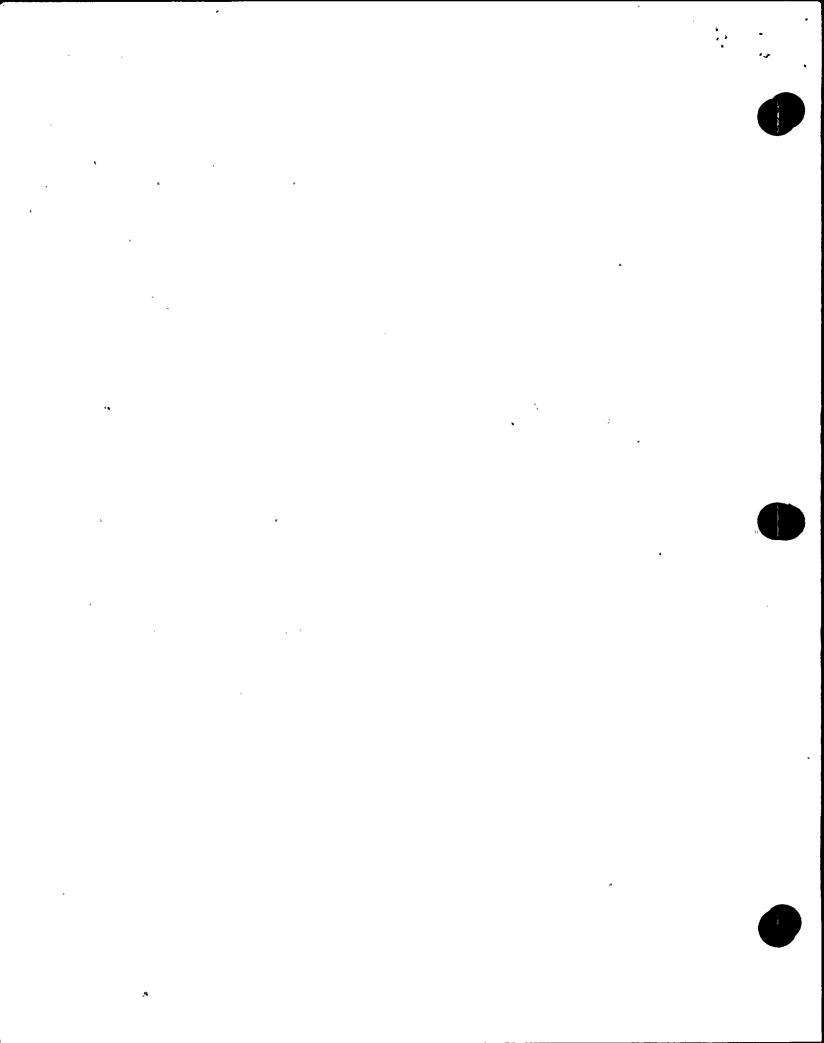
CHRONOLOGY OF CONCERN 86-64

<u>DATES</u>	EVENTS
7/2&3	RECEIVED VERBAL CONCERNS FROM THREE CONTRACTOR QC
,, 243	PEOPLE DURING TERMINATION.
	"C" PROGRAMMATIC & ID'ED AS FOLLOWS:
	- SU&T DOMINATES QC ACTIVITIES - LACK OF COMMUNICATION - PROCEDURES HARD TO WORK TO - NO JOB DEFINITIONS
7/3-8	RECEIVED ANONYMOUS CALLS THAT INFORMATION GIVEN BY THREE QC PEOPLE WAS LEGITIMATE.
	- DECIDED TO INTERVIEW MORE PEOPLE - QUESTIONS AT INTERVIEW RELATE TO CONCERNS - DECIDED TO USE 2 INTERVIEWERS/INTERVIEW
7/10	INTERVIEWED 22 PEOPLE.
7/11-31	INTERVIEWED REMAINING PEOPLE.
•	 ALLOWED INTERVIEWEES TO DISCUSS ANYTHING. IF RELATED TO CONCERNS - ASKED IF AWARE OF PROBLEMS IN AREA. IF CONVERSATION DID NOT ADDRESS CONCERN, THEN
	QUESTIONS ASKED FOLLOWING INTERVIEW, INTERVIEWERS SHARED NOTES, IDEAS, AND CLASSIFIED THEIR PERCEPTION OF
	INTERVIEW TOTAL 29 PEOPLE INTERVIEWED, 17 WERE CONTRACT AND 12 WERE NMPC DIRECT EMPLOYEES.
7/14-8/16	Q1P INITIAL INTERVIEWER & INVESTIGATORS ARRIVE AT PLAN OF ACTION TO VALIDATE CONCERNS.
	 START INVESTIGATIONS TALK TO PEOPLE, REVIEW OBJECTIVE EVIDENCE (DOCUMENTS), CONDUCT INTERVIEWS. ARRIVE AT CONCLUSIONS WRITE INVESTIGATIVE REPORTS AND RESULTS - VALID OR INVALID.
8/19	MGR. Q1P & INTERVIEWED MET VICE PRESIDENT-Q.A. & VERBALLY PRESENTED RESULTS AND BACKGROUND MATERIAL FOR V.PQ.A.'S ACTION.



CHRONOLOGY OF CONCERN 86-64 - (cont'd.)

DATES	EVENTS
8/21	Q1P FORMAL TRANSMITTAL OF ALL CONCERNS TO V.PQ.A. FOR RESPONSE ON A,B,C,E & G.
8/21	V.PQ.A. MET WITH MGR. NUCLEAR QA OPERATIONS AND QC SUPERVISOR. DISCUSSED EACH CONCERN, BRAINSTORMED EACH AND DRAFTED RESPONSES.
8/25	DRAFT LETTER AND REVISED RESPONSES FROM MGR. NUCLEAR QA OPERATIONS RECEIVED BY V.PQ.A.
8/26&27	LETTER AND RESPONSES STRENGTHENED AND FIRMED UP.
8/28	LETTER WITH RESPONSE DATED 8/27 SIGNED BY V.PQ.A. AND DISTRIBUTED.
8/28	NRC RESIDENT REVIEWED Q1P FILE MATERIAL.
8/29	NRC REGION I MEETING WITH NMPC SENIOR MANAGEMENT REGARDING Q1P CONCERN.
8/31	V.PQ.A. LETTER TO MANAGER LICENSING AND RESPONSE RECEIVED ON REPORTABILITY AND IMPACT ON CERTIFICATION OF COMPLETION OF UNIT 2.
9/1	V.PQ.A. ISSUED RESPONSE SUPPLEMENT LETTER TO Q1P.
9/1	NM PRESIDENT SIGNED LETTER TO MR. KANE ON Q1P ACTIVITIES.
9/2	LETTER TO MR. KANE RECEIVED AT REGION I.



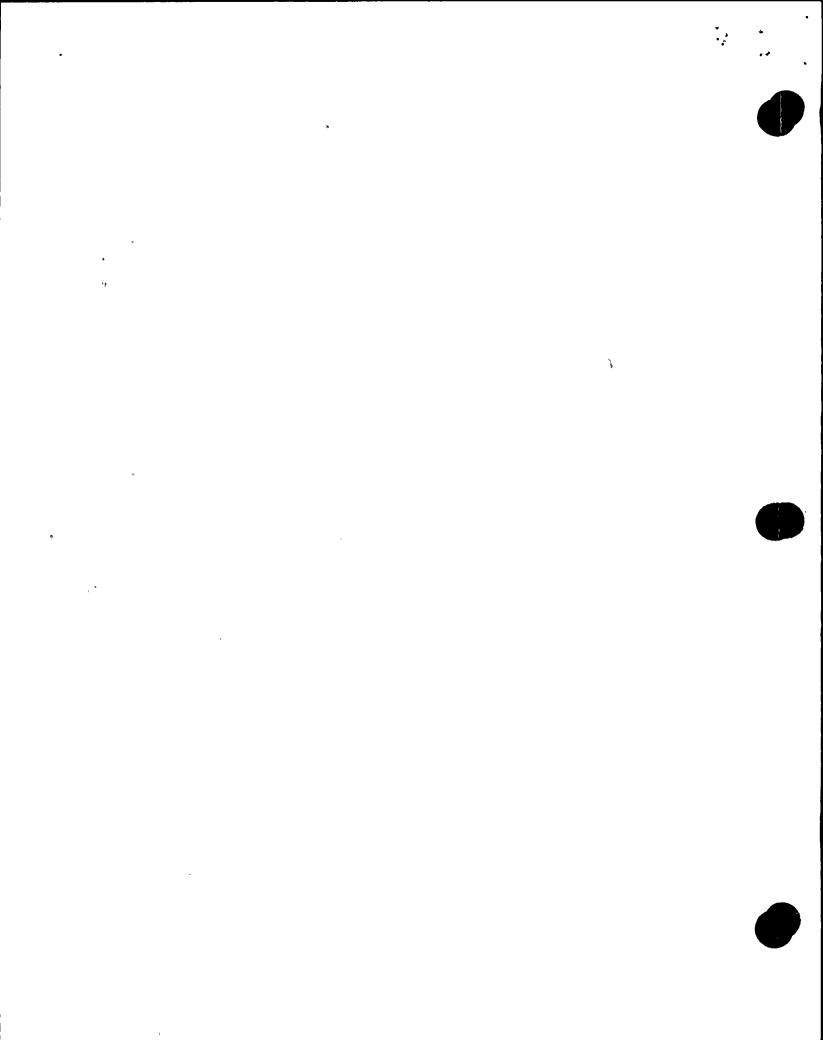


KEY FACTORS FORMING BASIS FOR LUSION REGARDING NO IMPACT ON PHYSICAL PLANT QUALITY vs. ELEMENTS OF THE INVESTIGATION REPORT



ELEMENTS OF INVESTIGATION REPORT

<u>FACTORS</u>	QA/SU&T RELATIONSHIPS - QA/SU&T Mgt. Interfaces	- QA Leadership	- QA Practices - DR's vs. CAR's	INSPECTION LEAD - Mgt. Style	- Procedures and Instructions	COMMUNICATIONS - Vertical Communications	- Job Responsibilities	- Training	- QA Support	- Horizontal Communications	- Personnel Practices
1. Persons interviewed stated "no hardware problems".	х	X	X	х	X	X	Х	X	X	x	x
2. Not reportable 50.55(e)	x X	х	х	Х	Х	Х	Х	Х	х	х ,	х
3. Item not directly hardware related.	Х	Х	Х	Х	X	х	х	χ .	х	x	х
4. Item indirectly hardware related.			х		Х			χ -	, X	X	-
5. QC Inspection overchecks			Х		х.			Х	X	x	
		ū		,		·					

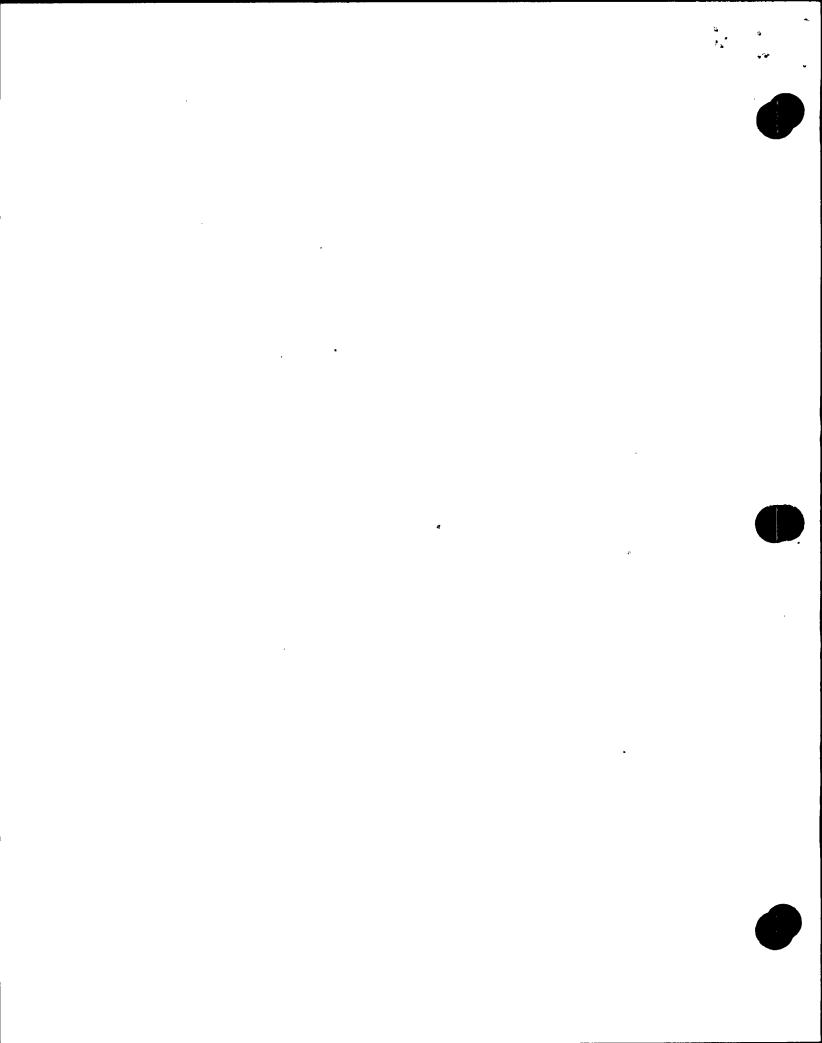


ATTACHMENT

Factors Forming Basis for Conclusion

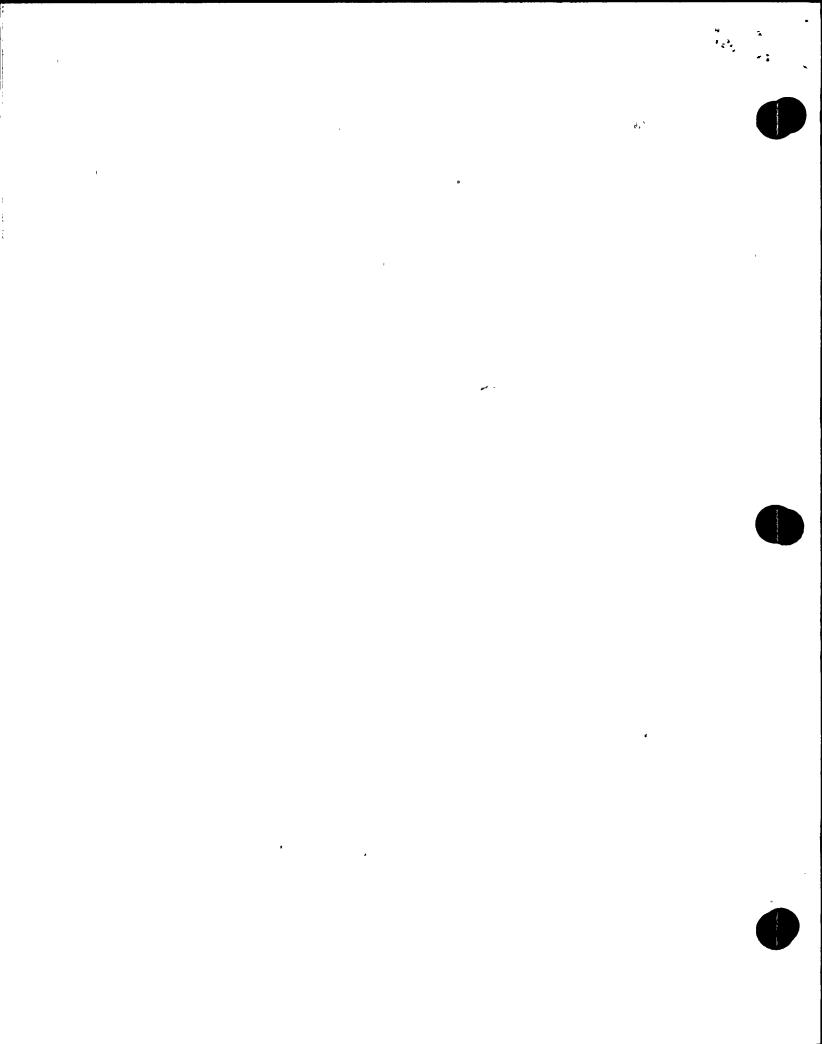
(Ref. Concerns 86-00064)

- 1. The Quality First Program investigation showed that each concernee and every other person interviewed specifically stated that they knew of no hardware problem which was not supported for correction by QC Supervision.
- 2. All items identified were determined not reportable per 10 CFR 50.55(e).
- 3. QC inspection activity is overchecked by many specific programs.
 - a. Audits Since June, 1985, 12 audits have been performed that are test and hardware oriented.
 - b. Surveillances Since January, 1986, approximately 700 surveillances have been performed of testing and quality control activities.
 - c. There are reviews of completed inspection documents performed routinely.
 - d. Quality Engineering reviews DR's and WR's to verify that any required inspections were performed consistent with the work description.
 - e. Some specific components received functional tests.
 - f. Preoperational/Acceptance tests were often used to verify the individual components/equipment integrity on a system basis following inspection activities.
 - g. Work documentation such as DR's routinely require "retest" of some conditions following completion of work and inspection activities.
 - h. Start Up personnel are certified per ANSI N45.2.6 to perform testing functions.
 - i. Component and system acceptance is based on recorded data and evaluated by a certified Level III Test Engineer.



NQ	A	OPS.	SECT	NOI	
LOWER :	ક	POSIT	IVE	RESPONSE	
_	9	<u>M1</u>		<u>9M2</u>	

	NMPC NUCLEAR QUESTIONNAIRE ITEMS	LOWER	<pre>% POSITIVE 9M1</pre>	RESPONSE 9M2
27.	QA & OTHER DEPARTMENTS WORK AS TEAM TO RESOLVE QUALITY PROBLEMS.			x
4.	NUCLEAR DIVISION GIVES PROPER ATTENTION TO QUALITY/SAFETY RELATED ISSUES.			x
21.	Q1P PROVIDES ADEQUATE CONFIDENTIALITY.		x	
7.	OPEN AND HONEST COMMUNICATIONS REGARDING QUALITY AND SAFETY CONCERNS.			x
20.	IF SUPERVISOR DOES NOT RESOLVE CONCERN, WOULD USE Q1P.		x	
33.	DURING OUTAGES RELUCTANT TO REPORT CONCERNS TO NMPC.	•		
24.	Q1P ADMINISTERED PROPERLY.		x	
12.	MY SUPERVISOR SUPPORTED BY BOSS TO RESOLVE PROBLEMS.		•	x
14.	IF SUPERVISOR DOES NOT RESOLVE CONCERN, FEEL FREE TO GO TO OTHER MANAGEMENT LEVELS.		x	
23.	I FEEL PEER PRESSURE IF I USE Q1P.		x	
11.	MY SUPERVISOR GIVES ME FEEDBACK ON RESOLUTION OF PROBLEMS.			x
13.	MY SUPERVISOR RESPONSIVE TO SAFETY/QUALITY RELATED IDEAS.			x
10.	WHEN CALLED TO SUPERVISOR'S ATTENTION, SUPERVISOR TAKES ACTION ON SAFETY/QUALITY ISSUES.			x
8.	MY SUPERVISOR ENCOURAGES IDENTIFICATION OF PROBLEMS.			x



01P CONCERN 86-00064C

INVESTIGATION REPORT PARAGRAPH	V.P. Q.A. RESPONSE OF 8/27/86 BULLET NO.
1. DOMINATION BY START UP	1, 2, 3
2. LANGUAGE	NOT MENTIONED*
3. SYSTEM COMPLEX/CONFUSING	1, 2, 3, 5
4. POOR COMMUNICATIONS	1, 2, 3, 4, 5

*NOTE: V.P.-Q.A. LETTER DATED 9/1/86 TO MANAGER Q1P - SUBJECT, RESPONSE SUPPLEMENT, ADDRESSES THIS SPECIFIC ISSUE.

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