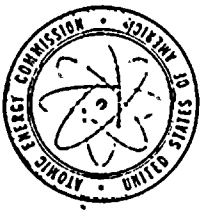


DR Central File



UNITED STATES
ATOMIC ENERGY COMMISSION
DIRECTORATE OF REGULATORY OPERATIONS
REGION I
631 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

OCT 16 1974

Niagara Mohawk Power Company
Attention: Mr. R. R. Schneider
Vice President
300 Erie Boulevard, West
Syracuse, New York 13202

Docket No. 50-410
License No. CPPR-112
Inspection No. 74-01

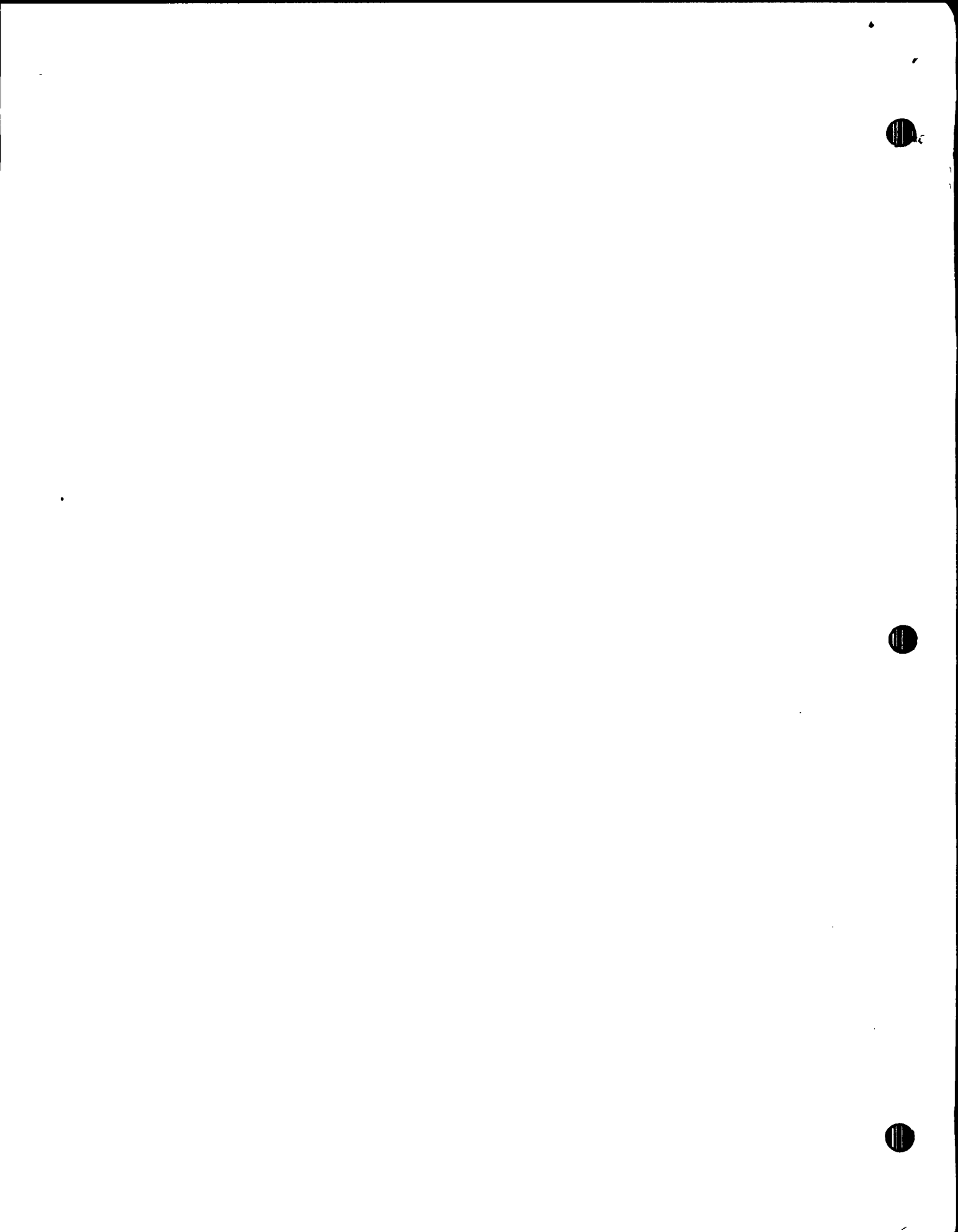
Gentlemen:

This refers to the inspection conducted by Mr. Toth of this office on September 26-27, 1974, of activities authorized by AEC License No. CPPR-112 and to the discussions of our findings held by Mr. Toth with Mr. Dise and Mr. Hilke of your staff at the conclusion of the inspection.

Areas examined during this inspection are described in the Regulatory Operations Inspection Report which is enclosed with this letter. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

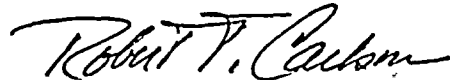
Within the scope of this inspection, no violations or safety items were observed.

In accordance with Section 2.790 of the AEC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the AEC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.



No reply to this letter is required; however, should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

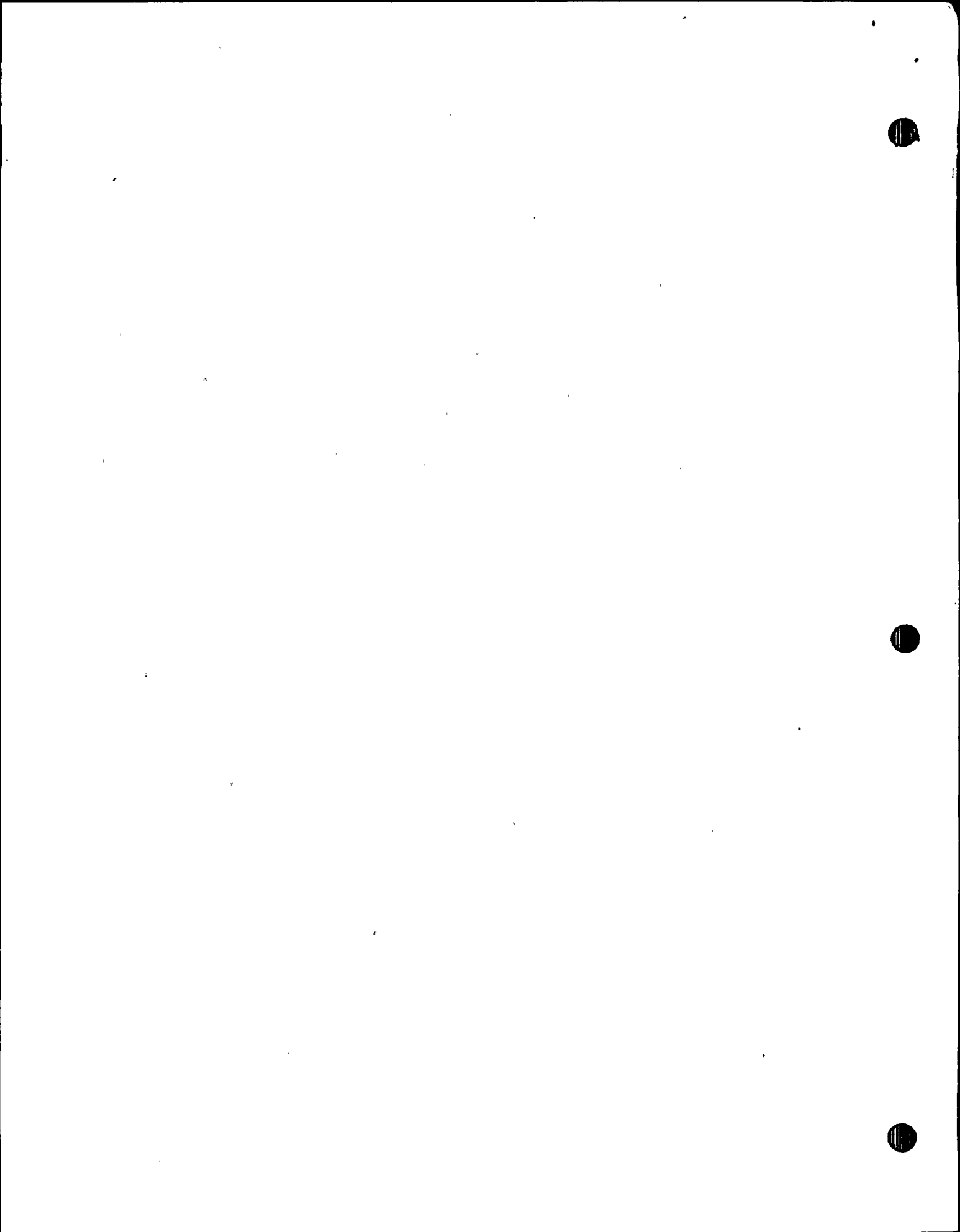


Robert T. Carlson, Chief
Facility Construction and Engineering
Support Branch

Enclosure:
RO Inspection Report No. 50-410/74-01

cc: Eugene B. Thomas, Jr., Esquire

bcc: (w/encls)
RO Chief, FC&ES Branch
RO:HQ (5)
DL (4 w/encls, plus 9 cys report only)
DR Central Files
RS (3)
PDR
Local PDR
RO Files
NSIC
TIC
RO:I Regulatory Reading Room
OGC
State of New York



U.S. ATOMIC ENERGY COMMISSION
DIRECTORATE OF REGULATORY OPERATIONS
REGION I

RO Inspection Report No: 50-410/74-01
Licensee: Niagara Mohawk Power Company
300 Erie Boulevard - West
Syracuse, New York 13202
Location: Nine Mile Point Unit No. 2, Scriba, New York

Docket No: 50-410
License No: CPPR-112
Priority: _____
Category: A-1

Type of Licensee: BWR, 1100 MWe (GE)
Type of Inspection: Routine, Announced
Dates of Inspection: September 26-27, 1974
Dates of Previous Inspection: July 19-October 9, 1973

Reporting Inspector: *A. D. Toth*
A. D. Toth, Reactor Inspector

10-15-74
Date

Accompanying Inspectors: None

Date

Date

Date

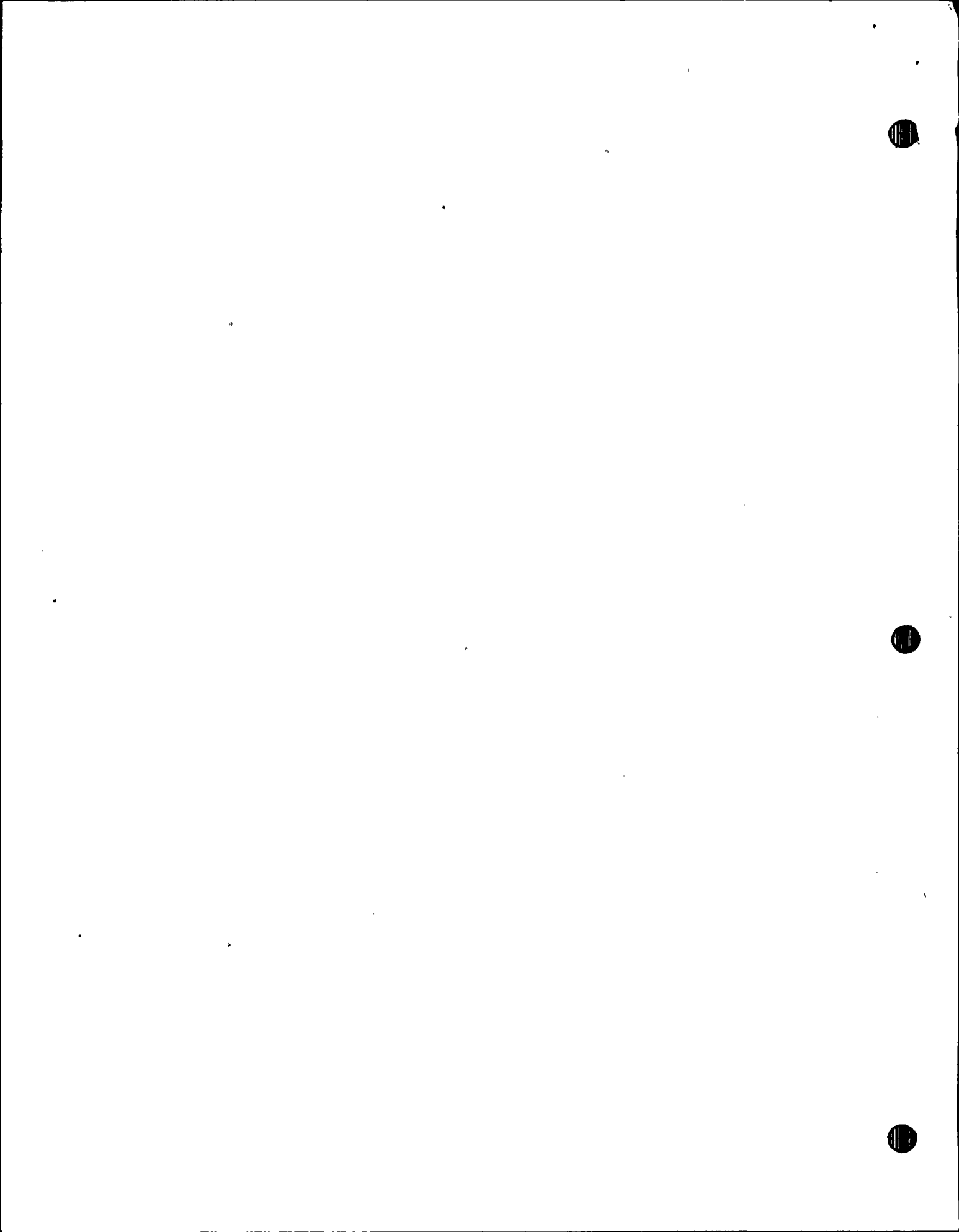
Date

Other Accompanying Personnel: None

Date

Reviewed By: *R. F. Heishman*
R. F. Heishman, Senior Reactor Inspector

10/16/74-
Date



SUMMARY OF FINDINGS

Enforcement Action

None

Licensee Action on Previously Identified Enforcement Action

None outstanding

Design Changes

None

Unusual Occurrences

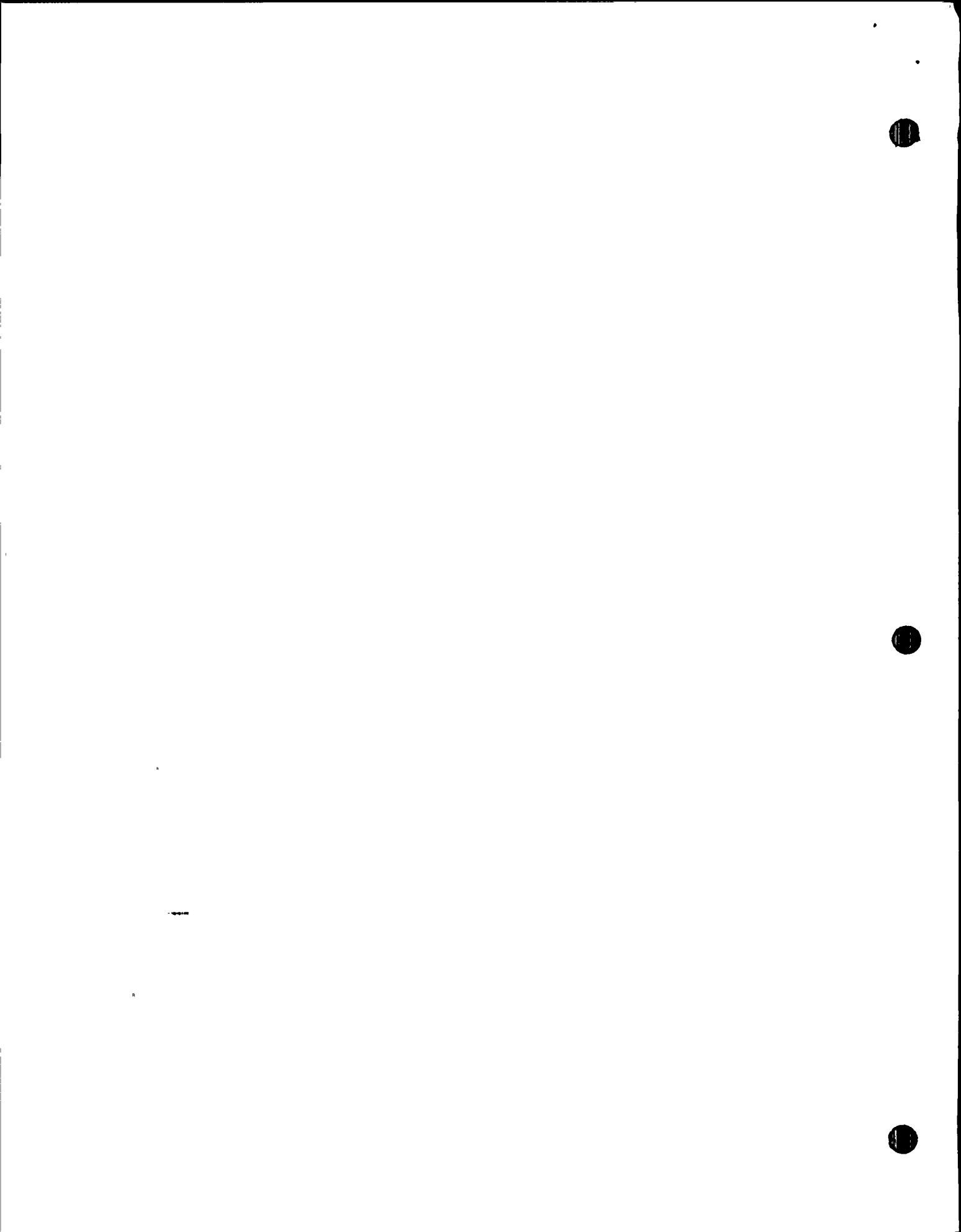
None

Other Significant Findings

A. Current Findings

The following items require further information for evaluation prior to their resolution:

1. Pace of design/procurement is being reduced and construction start has been deferred an indefinite period. (Details, Paragraph 3)
2. All required quality assurance implementing procedures have not yet been completed; this is unresolved. (Details, Paragraph 4)
3. Licensee capability to resolve nonconformances in the contractor quality assurance program is unresolved. (Details, Paragraph 5)
4. Adequacy of procurement surveillance procedures in current use by Stone and Webster is unresolved. (Details, Paragraph 6)
5. Adequacy of construction surveillance procedures is unresolved. (Details, Paragraph 7)
6. Control of changes to the project interface agreement is unresolved. (Details, Paragraph 8)
7. Adequacy of procedure for OA manual reviews is unresolved. (Details, Paragraph 9)



B. Status of Previously Reported Unresolved Items

None outstanding

Management Interview

Attendance

Niagara Mohawk Power Company

Mr. J. L. Hilke, Project Manager
Mr. S. F. Manno, Assistant Project Manager
Mr. D. P. Dise, Manager, Quality Assurance
Mr. T. G. Bassett, Quality Assurance Supervisor
Mr. J. J. Bebko, Quality Assurance Engineer
Mr. D. E. Reeves, Quality Assurance Engineer

Stone and Webster Engineering Corporation

Mr. A. E. Little, Project Quality Assurance Coordinator

Atomic Energy Commission, RO:I

Mr. A. D. Toth, Reactor Inspector

The above individuals discussed the following items at an exit meeting September 27 at the Niagara Mohawk Power Company offices in Syracuse:

A. Inspection Objectives

The inspector discussed the inspection objectives and the impact of the unavailability of contractor procedures for delegated activities. The inspection objectives were not fully achieved. (Details, Paragraph 2, 4, 6 and 7)

B. Status of Project

Construction is not planned to proceed until construction permit appeals have been resolved. Procurement and design pace may be reduced. Engineering is currently about 70% complete and detailed design (drawings) about 45% complete. A definitive construction schedule slippage has not been established. (Details, Paragraph 3)

The licensee acknowledged this information.

C. Status of QA Program

The Stone and Webster procurement and field quality control procedures are being consolidated and revised into a new system of



Quality Standards and Quality Assurance Directives. The NMPC Quality Assurance Procedures for construction phase are not yet complete. Completion of these items prior to start of construction is an unresolved item. (Details, Paragraphs 4.b and 4.c)

The licensee acknowledged the status.

D. Responsibility for the QA Program

Stone and Webster is conducting procurement activities to Quality Standards and Quality Assurance Directives not recognized by NMPC and in the face of a NMPC nonconformance report against this activity.

The licensee representatives stated that negotiations are currently in progress to obtain Stone and Webster compliance with the licensee's quality assurance program requirements.

This item is unresolved pending future inspection of the effectiveness of the licensee's measures to resolve the nonconformance. (Details, Paragraph 5)

E. Procurement Surveillance Procedures

S&W procurement surveillance is reportedly conducted in accordance with QAD-18.11, which has been audited by the licensee. The inspector stated that he had no question on this approach, but the referenced QAD had not been available for this inspection.

The licensee stated that negotiations are in progress to obtain controlled copies of QAD's.

This item is unresolved pending results of a future inspection. (Details, Paragraph 6)

F. Construction Surveillance Procedures

Construction surveillance procedures for NMPC and S&W are not yet complete. Applicable Quality Assurance Directives were unavailable at the licensee's offices, and the inspector was thus unable to assess the adequacy of this aspect of the QA program.

The licensee representative stated that negotiations are in progress to obtain controlled copies of QAD's. The S&W representative stated that uncontrolled individual QAD's were available to NMPC upon written request.



This item is unresolved pending results of a subsequent inspection.
(Details, Paragraph 7)

G. Project Interface Agreement

The licensee's copy of the project interface agreement was found not to be signed by representatives of NMPC, S&W, and GE.

The licensee representative stated that evidence of reviews exists at the Stone and Webster official files.

This item is unresolved pending confirmation of approval status in a future inspection. (Details, Paragraph 8)

H. Review of Contractor QA Manuals

The NMPC review of the S&W Quality Standards manual was performed utilizing a procedure not fully appropriate to the circumstances.

The licensee noted that the procedure had actually been supplemented with other acceptance criteria by the user of the procedure, and the procedure is in the process of revision to incorporate such additional criteria.

This item is unresolved pending inspection of the revised procedure and results of its use. (Details, Paragraph 9)



DETAILS

1. Persons Contacted

Niagara Mohawk Power Company

Mr. S. F. Manno, Assistant Project Manager
Mr. D. P. Dise, Manager, Quality Assurance
Mr. T. G. Bassett, Quality Assurance Supervisor, NMP-2 Project
Mr. J. J. Bebko, Quality Assurance Engineer
Mr. D. E. Reeves, Quality Assurance Engineer

Stone and Webster Engineering Corporation

Mr. A. E. Little, Project Quality Assurance Coordinator

2. Inspection Objectives

The objectives of this inspection were to assess project status in design, procurement and construction, assess status of the QA program, and determine adequacy of procurement surveillance and construction surveillance implementing procedures. Assessment of procedure adequacy was not fully achieved due to incomplete status of certain procedures and unavailability of certain procedures at the licensee's offices. (See Paragraphs 4, 6, 7 below)

3. Status of Project.

- a. Site preparation or other construction related site activities have not been started. The licensee has advised AEC Licensing in a July 15, 1974 letter that construction activities will not proceed until after the license decision is beyond reversal on appeal. The construction permit was issued June 24, 1974 and the licensee anticipates a decision on the appeal no sooner than November 30, 1974. A construction schedule is not planned to be established before then in that the critical path will be dependent on a November-March "window" in the schedule, associated with prohibition on lifting the reactor vessel during winter months due to temperature effects on the nil-ductility-transition of the lifting cables.
- b. Procurement has been proceeding and letters of intent have been issued to contractors for containment steel, piping, valves, steam condenser, diesel generators, and reinforcing steel; and contracts have been signed for the reactor vessel and reactor



fuel. Due to actual and projected schedule slippage, all procurement actions except the reactor vessel will be subjected to negotiations for extended delivery dates.

- c. Design and engineering have been proceeding on conceptual and production levels. The progress is reported as approximately 70% completion of engineering and 45% completion of detailed design. Conceptual design of most systems is reported as 100%. No design review meetings have yet been held in accordance with PSAR section R-D.7 and Project Procedure No. 7. The licensee stated that such reviews are not planned to be conducted until the design of an entire system is completed. No date has been identified for the first anticipated design review meeting. The PSAR does not identify timing requirements to the contrary.

4. Status of Quality Assurance Program

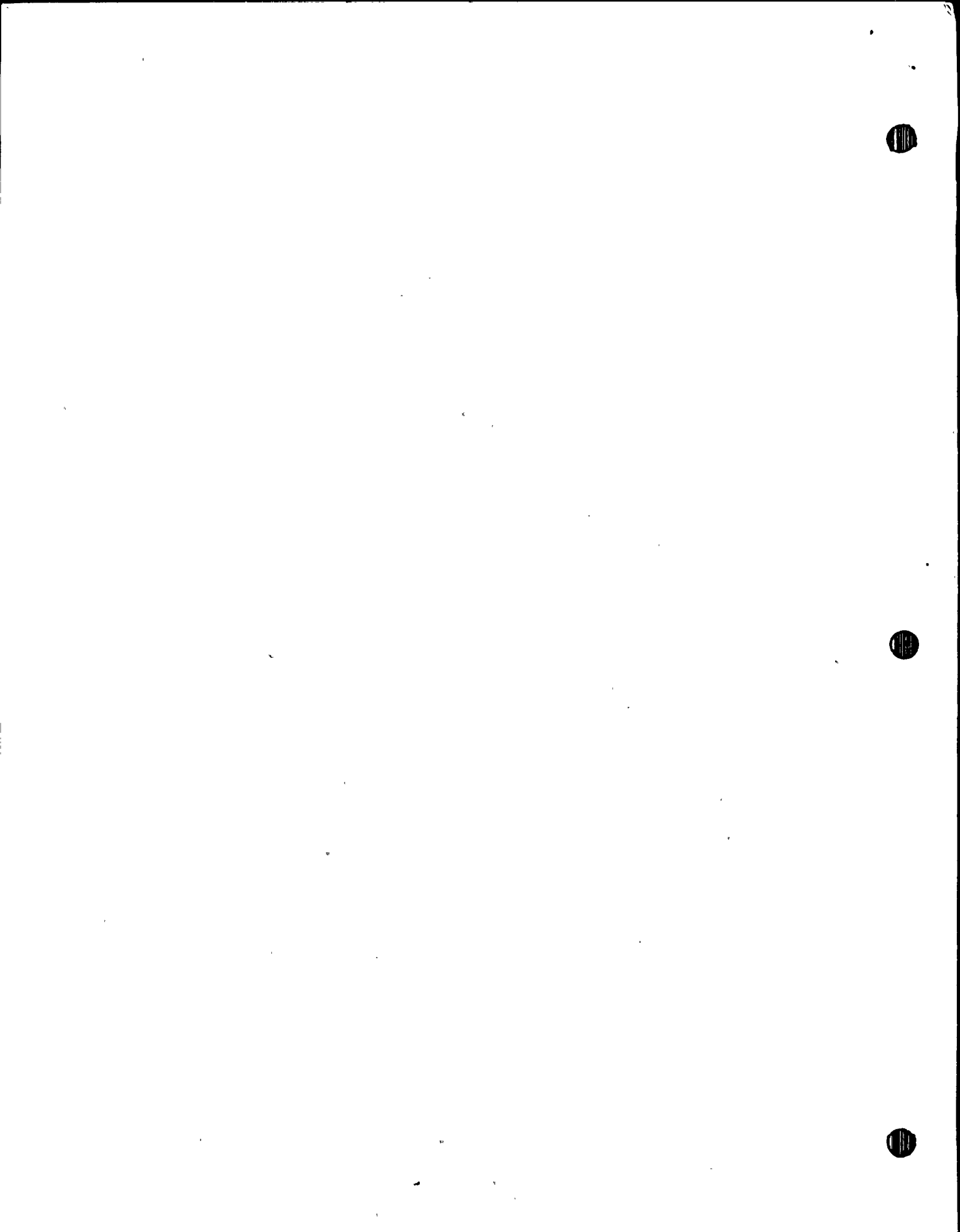
The licensee provided the following manuals, as listed in the PSAR, for the inspector's examination:

NMPC Quality Assurance Manual
NMPC Quality Assurance Procedures Manual
S&W Project Quality Assurance Manual
S&W Engineering Assurance Manual
S&W Procurement Quality Control Manual
S&W Field Quality Control Manual
S&W Company Quality Assurance and Control Manual - ASME III
S&W Quality Assurance Nondestructive Testing Manual
S&W Project Manual Volumes 1 and 2.*

The licensee had approved the content of these documents as fundamental components of the quality assurance program for the project on October 4, 1973. However, at this inspection the licensee stated that the following changes are anticipated:

- a. The S&W Company Quality Assurance and Control Manual - ASME III will not be applicable to this project. Rather, the containment contractor (Graver Tank) and the piping contractor (ITT Grinell) will use their own QA manuals for ASME Code work; these manuals would be reviewed by Stone and Webster.
- b. The S&W Procurement Quality Control Manual and the Field Quality Control Manual are anticipated to be replaced by a new manual of

* Not identified in the PSAR, but also an important quality related document in that it defines procedures for conducting design reviews, coordination of technical interfaces between contractors and the licensee, etc.



Quality Standards plus a system of Quality Assurance Directives. The Quality Standards manual was available for the inspector's examination, but the associated/referenced Quality Assurance Directives were not available at the licensee's offices. The new Quality Standards and Quality Assurance Directives are reported to be in use by Stone and Webster for procurement activities in progress. Not all of the planned S&W Quality Standards and Quality Assurance Directives relating to construction have been completed as yet. The licensee representatives stated that only about 80% of these planned implementing instructions are complete, but that all required instructions would be completed prior to start of construction. Completion of required instructions and associated training of personnel in the use of the instructions is an unresolved item.

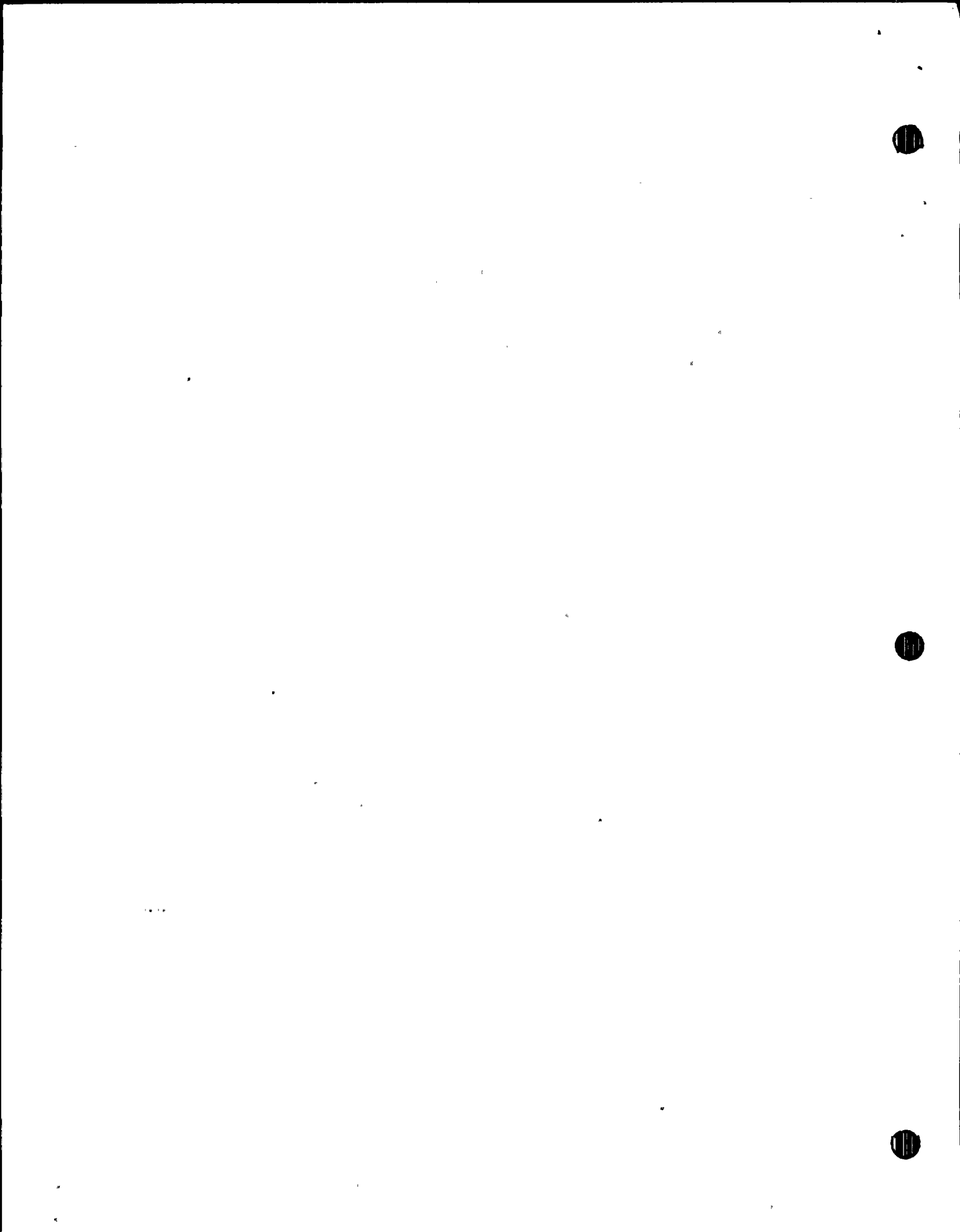
- c. The NMPC Quality Assurance Procedures manual is not yet complete. Specifically, the construction surveillance procedure QAP No. 18.11 has not been prepared. The licensee representative stated that this would be complete prior to start of construction. Completion of the construction related parts of the Quality Assurance Procedures manual is an unresolved item.

5. Responsibility for the Quality Assurance Program

In conjunction with its formal approval of the Stone and Webster quality assurance manuals on October 4, 1973, the licensee requested S&W to include in its procedures provision for review and concurrence sign-off by NMPC of proposed additions and revisions to each such manual before they are implemented. Such review/concurrence sign-off would be by the NMPC Quality Assurance Department and Project Management. The NMPC request further stated that such action is required for NMPC to discharge its responsibility under Appendix B of 10 CFR 50.

On July 12, 1974 the licensee issued nonconformance report No. NC-0058 to Stone and Webster. The report cited the contractor for several activities affecting quality being performed to procedures not recognized by NMPC and the Unit 2 quality assurance program. It cites that several such procedures are incorporated in the S&W Quality Assurance Directives Manual which has not been submitted to NMPC for inclusion into the Project's program.

The licensee representatives stated that Stone and Webster has thus far declined to provide controlled copies of the quality affecting Quality Assurance Directives or the Quality Standards, and has declined the NMPC requests for notification/review/concurrence prior to implementation of revisions.



The licensee advised the inspector that negotiations are continuing toward resolving this matter with S&W.

This item is unresolved pending future inspection of corrective action by the licensee.

6. Procurement Surveillance Procedures

Procurement and procurement surveillance is being performed by Stone and Webster. The licensee stated that these activities are being conducted in accordance with the new Quality Standards and associated Quality Assurance Directives, with procurement surveillance being conducted in accordance with Quality Assurance Directive QAD-18.11, "Audit of Vendor Programs." The QAD was not available at the licensee's office for review by the inspector. The licensee representatives stated that the QAD contains checklists for performing vendor audits by S&W, and that NMPC QA Department had audited the QAD and "not found it unacceptable."

The adequacy of the vendor surveillance procedures is unresolved pending RO inspection of the QAD-18.11 and associated NMPC audit results, and the S&W Quality Standards relating to this activity. Inspection of this item will be conducted following resolution of the nonconformance discussed in item 5 of this report.

7. Construction Surveillance Procedures

Construction surveillance will be performed by both Stone and Webster and by the licensee. The NMPC construction surveillance Quality Assurance Procedure No. 18.11 is not yet complete. The S&W construction surveillance procedures will be contained in the Quality Standards and associated Quality Assurance Directives. All of the required Quality Standards for this activity are not yet complete. The inspector attempted to review with the licensee and S&W representatives the documented methods to be used by NMPC and S&W to verify adherence to specific criteria of Appendix B, 10 CFR at the site:

- a. Criterion VIII, "Identification and Control of Materials, Parts and Components," was considered, but the review could not be completed since QS-8.12, the implementing Quality Standard, has not yet been prepared.



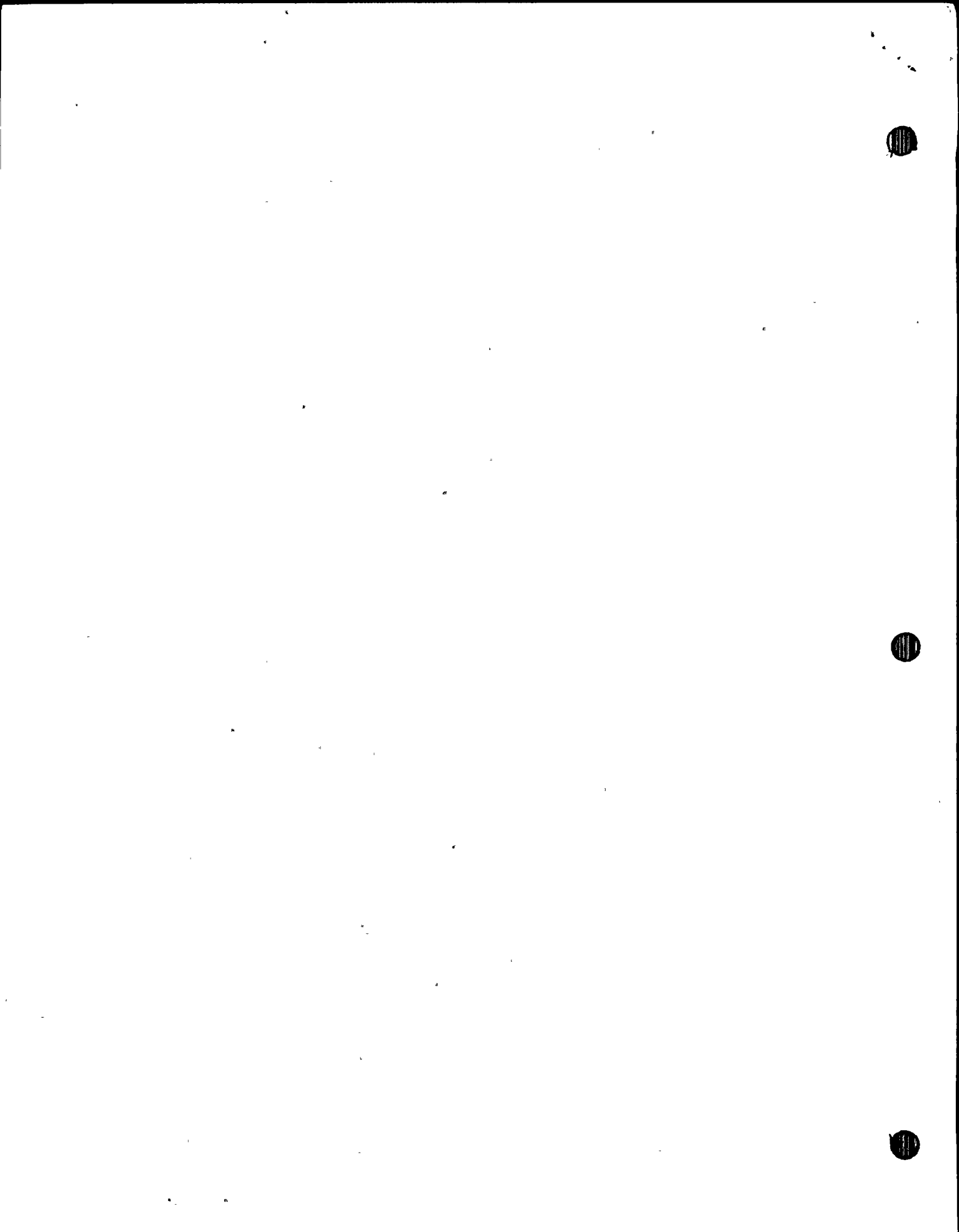
- b. Criterion XII, "Control of Measuring and Test Equipment," was considered, but the review could not be completed since the referenced QAD was not available at the licensee's offices. The inspector confirmed that QS-12.1 included requirements to verify that a program was in effect onsite for calibration and control of measuring and test equipment, and that the program does in fact maintain the calibration status of equipment. The inspector did not find requirements to verify that where out-of-calibration instruments are found an evaluation is made of the validity of results obtained with that instrument. The licensee representative stated that he had seen this aspect covered in the QAD referenced in the QS-12.1. The inspector could not verify this statement since the QAD was not available.

- c. Criterion XIII, "Handling, Storage and Shipping," was considered and the inspector confirmed that QS-13.12 included requirements to verify implementation of measures onsite for control of storage of materials. The inspector did not find requirements for verification of implementation of controls of handling, lifting and rigging onsite.

Since the S&W Quality Standards are not yet recognized by the licensee, associated referenced QAD's were not available for review by the inspector, certain applicable Quality Standards remain to be prepared, and since construction activities have not commenced and are not anticipated to commence for at least three months, the inspector abandoned further examination of these documents, pending resolution of the nonconformance discussed in item 5 of this report. The adequacy of the construction surveillance procedure is unresolved pending such future examination.

8. Project Interface Agreement

The inspector examined the April 1974 revision of the project interface agreement contained in the licensee's copy of the Project Manual. The interface agreement describes responsibilities and procedures for handling interfaces between NMPC, S&W and GE. The only copy of the agreement in the licensee's Project Manual



did not contain signatures of the authorized representatives in the spaces provided on the cover sheet. The inspector requested evidence that the April 1974 version of the agreement was effective and agreed-to by authorized representatives of each company. The licensee representatives stated that the fact that the document had a date and appeared in the project manual was evidence of appropriate approvals. The representatives stated that a signed copy of the cover sheet would appear in the official project files which are retained at the Stone and Webster offices.

This item is unresolved pending examination of the signed copy of the document, and review of Stone and Webster document control procedures governing this document.

9. Review of Contractor QA Manuals

NMPC Quality Assurance Procedure QAP-4.25, "Appraisal of Quality Assurance Manuals," requires evaluation of contractor and vendor QA manuals and delineates requirements corresponding to Criteria I, II, VI, X, XI, XVII and XVIII. This procedure was used to review the new S&W Quality Standards manual with respect to construction activities. The procedure did not adequately cover all the relevant criteria of Appendix B, 10 CFR 50, but was used in conjunction with a checklist which included an item which mentioned compliance with Appendix B. Inclusion of this item suggests that the review was performed in compliance with Criterion II and PSAR Section D2.2 requirements that the S&W QA program comply with Appendix B (all criteria). The licensee representative stated that procedure QAP-4.25 was under revision and would include or reference a checklist and requirements to review manuals with respect to all 18 criteria of Appendix B. The licensee representatives stated that for the NMP-2 project this procedure had been used only for review of the S&W Quality Standards manual, that the supplement checklist had been used, and that the review is not yet complete. This item is unresolved pending inspection of the revised procedure for its adequacy for identifying deficiencies such as described in item 7.c of this report.

