

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

Region I

Report No. 50-387/79-22

Docket No. 50-387

License No. CPPR-101

Category: B

Licensee: Pennsylvania Power and Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101

Facility Name: Susquehanna Steam Electric Station, Unit 1

Inspection at: Berwick, Pennsylvania

Inspection conducted: June 12-14, 1979

Inspectors: *D.L. Caphton for* 7/24/79
H. H. Nicholas, Reactor Inspector date signed

J. A. Guzman, Reactor Inspector, CO-OP
date signed

D. L. Caphton, Chief, Nuclear
Support Section No. 1 date signed

Approved by: *D.L. Caphton* 7/24/79
D. L. Caphton, Chief, Nuclear date signed
Support Section No. 1, RO&NS Branch

Inspection Summary

Inspection on June 12-14, 1979 (Report No. 50-387/79-22)

Areas Inspected: Routine unannounced inspection by a regional based inspector of the preoperational test program including, test program review requirements, procedures and test sequencing, preoperational test witnessing, quality assurance and quality control implementation, and inspections of the facility. The inspection involved 22.0 inspector-hours on site by one NRC regional based inspector, and 13.0 supervisory-hours by one NRC supervisor.

Results: No items of noncompliance were identified.

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DETAILS

1. Persons Contacted

Pennsylvania Power and Light Company

Mr. L. Ballard, NQA Senior Analyst
*Mr. J. Bradford, Quality Supervisor
Mr. P. Capotosto, NQA Project Engineer
*Mr. T. Clymer, NQA Senior Analyst
Mr. R. Dunn, Superintendent of Plant
*Mr. J. Green, NQA Resident Engineer
Mr. G. Kuczynski, Starting & Testing Field Engineer
*Mr. T. Oldenhage, Resident Engineer
*Mr. H. Stokes, Senior Project Engineer, Construction
Mr. T. Yezerski, Starting & Testing Coordinator

Bechtel Power Corporation

Mr. G. Smith, ISG Supervisor
Mr. J. Sullivan, Assistant Project Field Engineer

The inspector also interviewed other licensee personnel during the course of the inspection.

*denotes those present at the exit interview.

2. Preoperational Test Program

a. Test Program Requirements

(1) Discussion:

The inspector met with the integrated startup group (ISG) supervisor and discussed requirements of the below listed areas reviewed by the inspector as follows:

- Preoperational Test Program,
- Test Organization,
- Test Program Administration,
- Document Control,
- Design Changes and Modifications,
- Plant Maintenance/Preventive Maintenance,

- Equipment Protection and Cleanliness,
- Test and Measurement Equipment, and,
- Training.

(2) References:

The following references were used in review of the preoperational test program requirements:

- Startup Administrative Manual;
- Final Safety Analysis Report,
chapter 13, Conduct of Operations and
chapter 14, Initial Test Programs;
- Startup Technical Manual;
- Regulatory Guide 1.68, Initial Test Programs for
Water Cooled Nuclear Power Plants;
- Plant Administrative Procedures Manual; and,
- Quality Assurance Manual.

(3) Findings:

By reviews and discussions, the inspector verified the following:

- The applicant has prepared a description of the preoperational test program. General areas of testing have been identified and assignment of responsibilities have been made;
- The applicants test program has requirements for testing that appear to be consistent with FSAR commitments;
- Administrative documentation specifies satisfactory format and content for preoperational test procedures;
- Required qualifications, responsibilities, lines of authority and method of appointments, and interfaces existing between organizations in the test program, are clearly established in writing;
- Formal administrative measures have been established for jurisdictional control of system, component, or instrumentation status before, during, and subsequent to testing;

- Formal administrative measures have been established governing the conduct of testing, controlled scheduling of test activities, and a formal program for evaluation of test results;
- For test procedures, engineering drawings and vendors manuals, formal administrative measures have been established for the review, approval, issuance, revision, control, modification, and changes of these documents;
- For design change control, temporary modifications, jumpers and bypasses, a formal method has been established for initiating, reviewing and approving requests for design changes and modifications, and written administrative controls have been established for controlling temporary modifications, jumpers and bypasses, including controls requiring formal logs to be maintained;
- Administrative procedures exist including controls and methods for initiating, approving, reviewing, and scheduling of plant and preventive maintenance, controls for equipment protection, and the establishment of administrative controls for preparation and retention of maintenance records;
- A formal program for housekeeping activities during preoperational testing has been established;
- Administrative procedures and controls have been established for the storage, protection, calibration, and recordkeeping of test and measurement equipment; and,
- Training requirements have been established in writing for all personnel involved in areas such as, test procedure preparation and approval test performance and documentation, and test results review and approval. Training requirements also include administrative controls for testing, QA/QC for testing, and technical objectives.

The inspector had no further questions at this time.

b. Procedures and Test Sequencing

(1) Discussion:

The inspector met with the starting and testing coordinator and his group and discussed the following:

- procedure types,
 - preoperational test procedures
 - acceptance test procedures
 - startup procedures
 - technical procedures
- procedure status and availability,
 - draft copies
 - approved copies
- tests and test sequencing, and,
- test witnessing.

(2) References:

- FSAR chapter 14,
- ISG Startup Schedule for Unit 1,
- Startup Technical Manual,
- RG 1.68 Initial Test Programs for Water Cooled Nuclear Power Plants, and, Startup Administrative Manual.

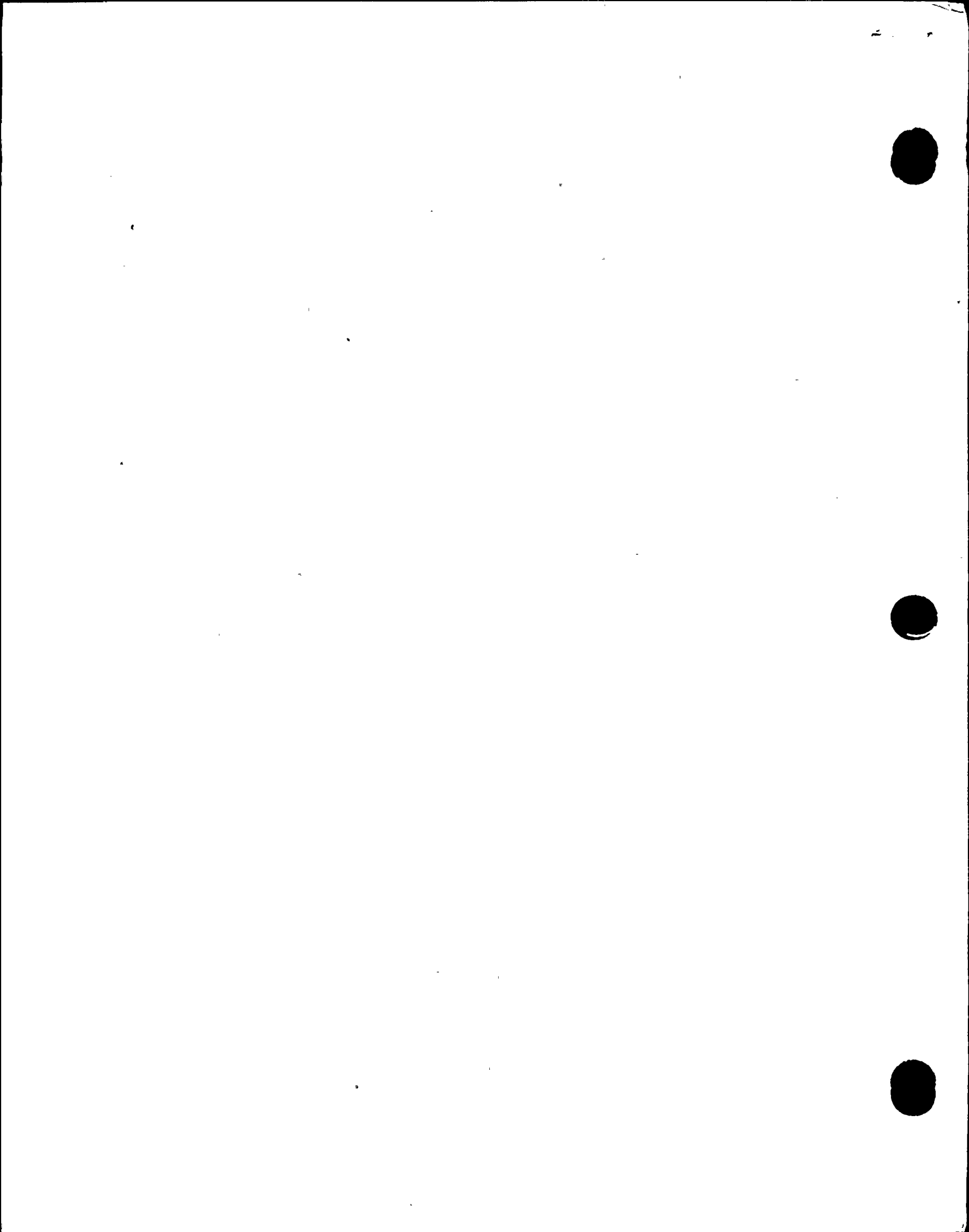
(3) Findings:

The inspector verified by discussion and review that areas under Regulatory Guide requirements and Final Safety Analysis Report commitments are addressed by specific procedures. These areas are either covered by preoperational test procedures or by startup test procedures.

The following draft copies of preoperational and acceptance test procedures were received for review:

- P 56.1C Revision 0
 - Rod Worth Minimizer
- P 49.1 Revision 0
 - Residual Heat Removal System
- P 50.1 Revision 0
 - Reactor Core Isolation Cooling System

- P 54.1 Revision 0
Emergency Service Water
- P 55.1 Revision 0
Control Rod Drive Hydraulic
- P 28.1 Revision 0
ESSW Pump House H & V
- P 23.1 Revision 0
Diesel Fuel Oil
- P 60.1 Revision 0
Containment Atmosphere Circulation
- P 70.1 Revision 0
Standby Gas Treatment
- P 28.3 Revision 0
Standby Diesel Generator Building H & V
- P 16.1 Revision 0
RHR Service Water
- H 45.2 Revision 0
Feed Water Control
- A 27.1 Revision 0
Auxiliary Boiler
- A 22.1 Revision 0
Makeup Demineralizer
- A 21.1 Revision 0
Water Pretreatment
- A 28.2 Revision 0
River Intake Structure H & V
- A 8.1 Revision 0
Domestic Water
- A 30.3 Revision 0
Control Structure Misc. H & V
- A 31.1 Revision 0
Computer Uninterruptible Power Supply
- A 38.1 Revision 0
Low Pressure Air
- A 42.1 Revision 0
Circulating Water
- A 28.4 Revision 0
Chlorination Building H & V
- A 28.5 Revision 0
Circulating Water Pump House H & V
- A 18.1 Revision 0
Instrument Air
- A 15.1 Revision 0
Turbine Building Closed Cooling Water



- A 10.1 Revision 0
Screens and Screen Wash
- A 9.2 Revision 0
Intake Structure Compressed Air
- A 9.1 Revision 0
River Water Makeup

The licensee's representatives assured the inspector that approved procedures will be provided in a timely manner to afford timely inspector reviews.

The inspector had no further questions regarding these procedures at this time.

c. Test Witnessing

(1) Discussion:

The inspector met with the ISG supervisor, quality supervisor, starting and testing coordinator, and NQA resident engineer, and discussed actual testing and test witnessing of systems and components.

The inspector submitted a list of tests to be witnessed by NRC inspectors, and requested the ISG supervisor or his representative to give the inspector prior notice of the exact time that the test is to be conducted. The notice and witnessing by NRC is not intended to interfere with PP&L's test scheduling or test sequencing.

(2) Findings:

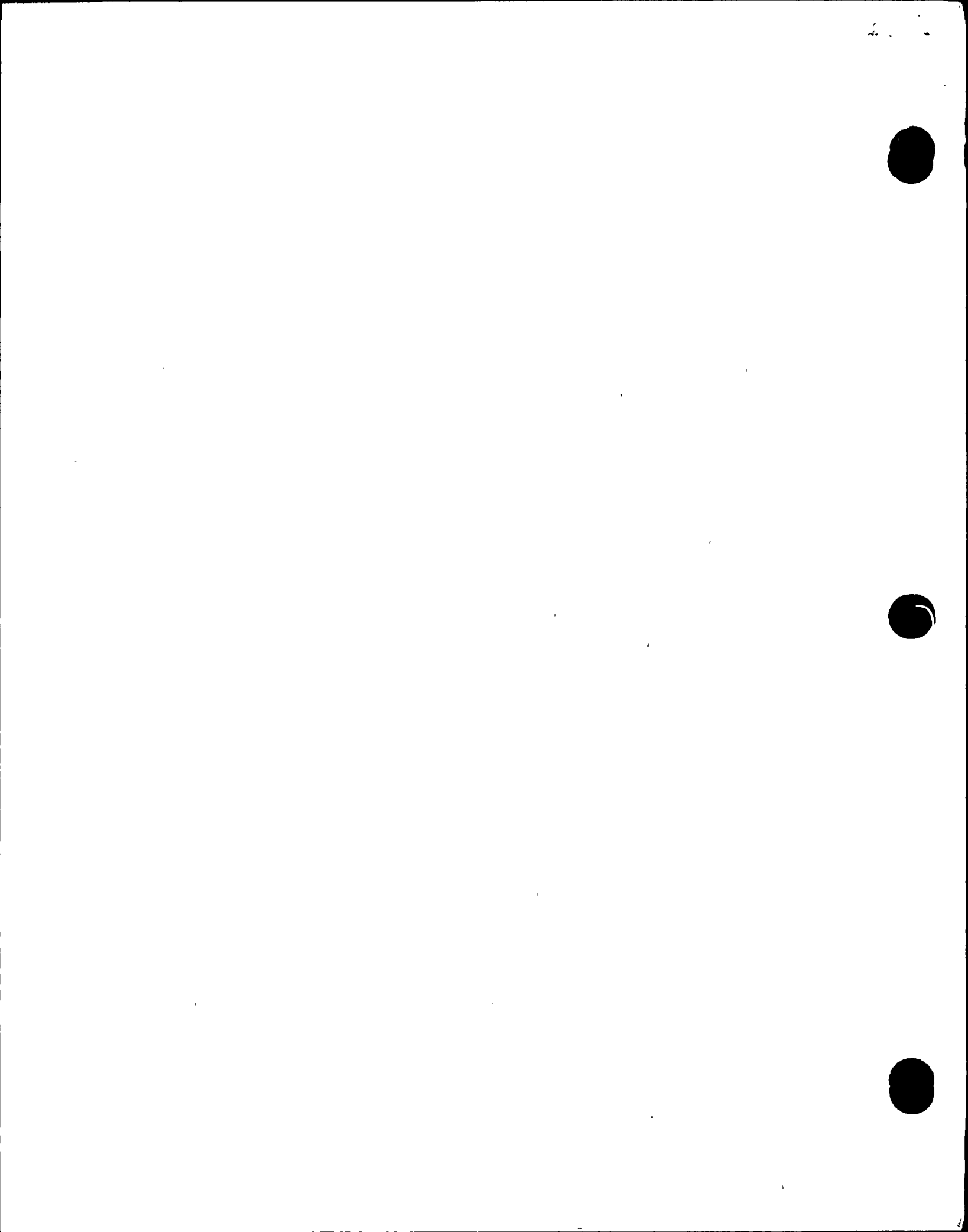
The inspector was informed that he would be notified in a timely manner, of tests to be performed, test scheduling and changes or cancellations of testing.

The inspector had no further questions in this area at this time.

d. Quality Assurance and Quality Control

(1) Discussion:

The inspector met with the quality supervisor and discussed the quality assurance - quality control interface, transition from preoperational testing into startup testing, quality control functions and areas, and, preoperational tests and test witnessing.



(2) References:

- Startup Administrative Manual,
- Plant Administrative Procedures Manual, and,
- Quality Assurance Manual.

(3) Findings:

As a result of discussions and review of documents, no discrepancies were noted and the inspector had no further questions at this time.

3. Plant Tours

The inspector made several tours of the facility including the following areas:

- The Reactor Containment, reactor building, and reactor,
- Control room,
- Upper and lower cable spreading rooms,
- Relay room,
- Turbine building,
- Primary containment and dry well area,
- Reactor pressure vessel, both internally and externally,
- Battery rooms; including related battery chargers, and,
- Diesel generator rooms.

The inspector observed work in progress, housekeeping, cleanliness controls, storage and protection of components, piping and systems.

No items of noncompliance were identified. These areas will be inspected during future inspections. The inspector had no further questions at this time.

4. Exit Interview

At the conclusion of the site inspection on June 14, 1979, an exit meeting was conducted with the licensee's senior site representatives (denoted in Paragraph 1). The findings were identified and previous unresolved items were discussed.

