

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-410/86-30
Docket No. 50-410
License No. CPPR Category B
Licensee: Niagara Mohawk Power Corporation
Facility Name: Nine Mile Point Nuclear Station, Unit 2
Inspection At: Scriba, New York
Inspection Conducted: June 2-6, 1986

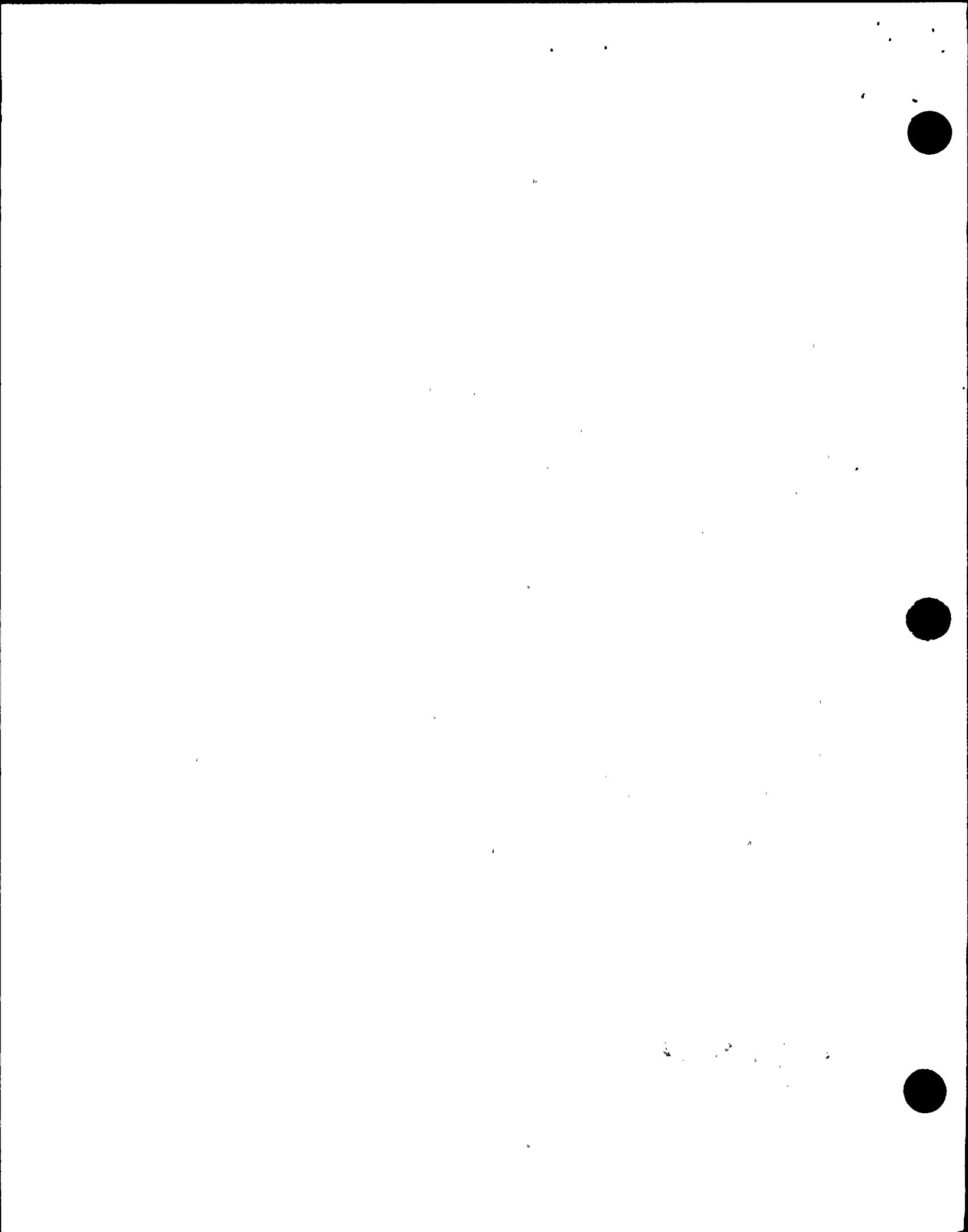
Inspector: Larry E. Briggs 6/24/86
L. Briggs, Lead Reactor Engineer date
Approved by: P. Eselgroth 6/24/86
P. Eselgroth, Chief, Test Programs date
Section, OB, DRS

Inspection Summary:
Inspection on June 2-6, 1986 (Report No. 50-410/86-30)

Areas Inspected: Routine, unannounced inspection by one region based inspector of preoperational test witnessing, preoperational test results evaluation review, QA/QC interface with the preoperational test program, independent verification and plant tours and meetings.

Results: No violations were identified.

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DETAILS

1. Persons Contacted

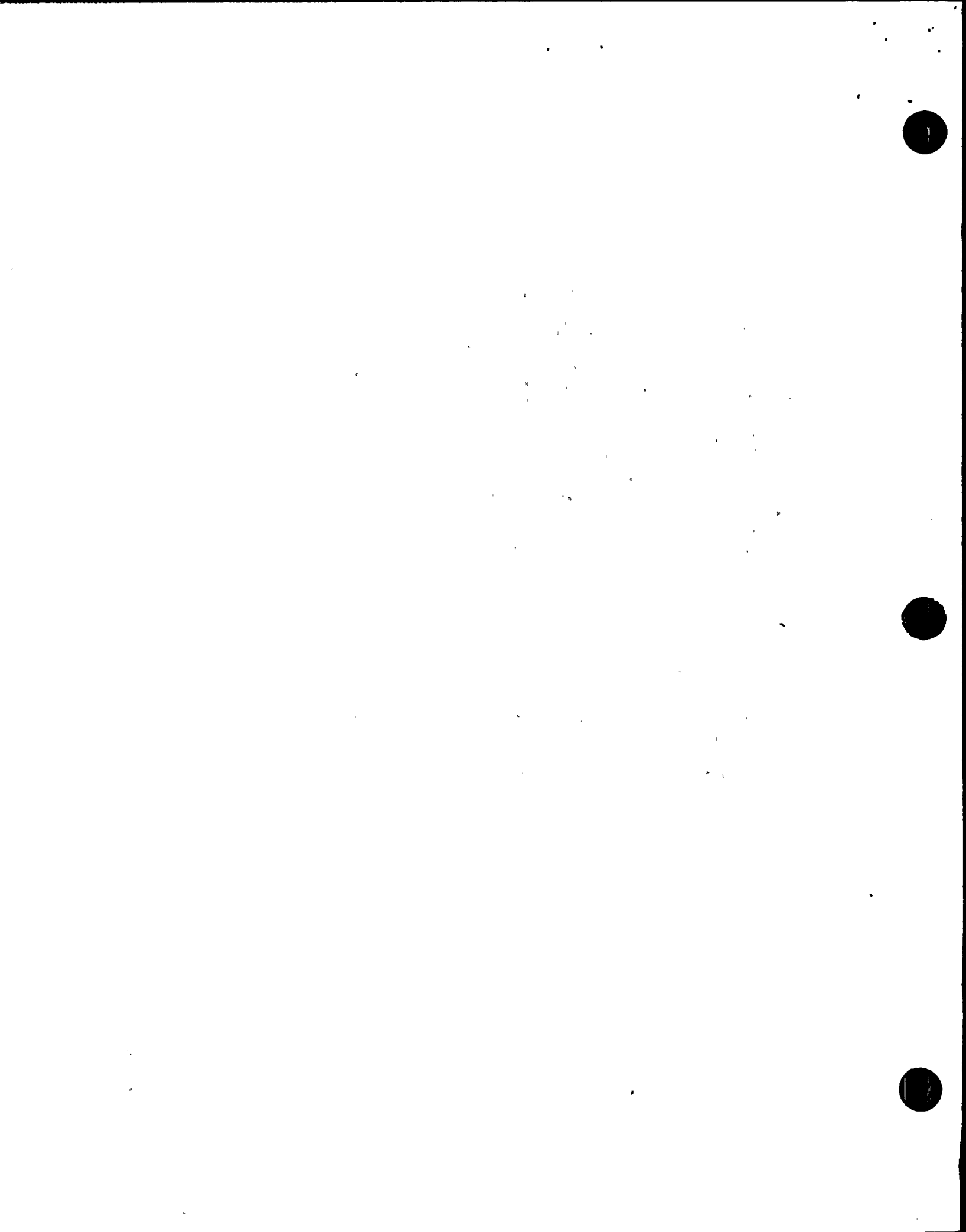
Niagara Mohawk Power Corporation

- *G. Afflerbach, Startup Manager
- *S. Agarwal, Senior Licensing Engineer
- *C. Beckham, Quality Engineering Supervisor, Operations
- *G. Blackburn, Test Group Manager
- *J. Drake, Startup Special Projects Supervisor (SWEC)
- *L. Fenton, Audit Group Lead
- *W. Friedrich, Auditor
- D. Flood, System Test Engineer (Automatic Depressurization System)
- G. Griffith, Site Licensing
- W. Hansen, Manager, Nuclear Quality Assurance - Operations
- *A. Kovac, Audits Supervisor
- *T. Lee, Special Projects
- T. Perkins, General Superintendent
- *D. Quamme, Project Director
- M. Ray, Manager, Special Projects
- *K. Roenick, Utility Construction Monitor, N.Y. State PSC
- J. Tanner, Test Engineer (Control Rod Drive System)

Other NRC Personnel

- *W. Cook, Senior Resident Inspector, Operations
- R. Gramm, Senior Resident Inspector, Construction
- J. Stair, Reactor Engineer

*Denotes those present at the exit meeting on June 6, 1986.



2.0 Preoperational Test Witnessing

2.1 Scope

Testing witnessed by the inspector included the observation of overall crew performance stated in Paragraph 7.0 of Inspection Report 50-410/86-15.

2.2 Discussion

During the entrance the licensee informed the inspector that preoperational testing of the Automatic Depressurization System (ADS), POT 34 and the Control Rod Drive (CRD) system, POT 30 would be in progress throughout the week. Both tests were in part observed by the inspector.

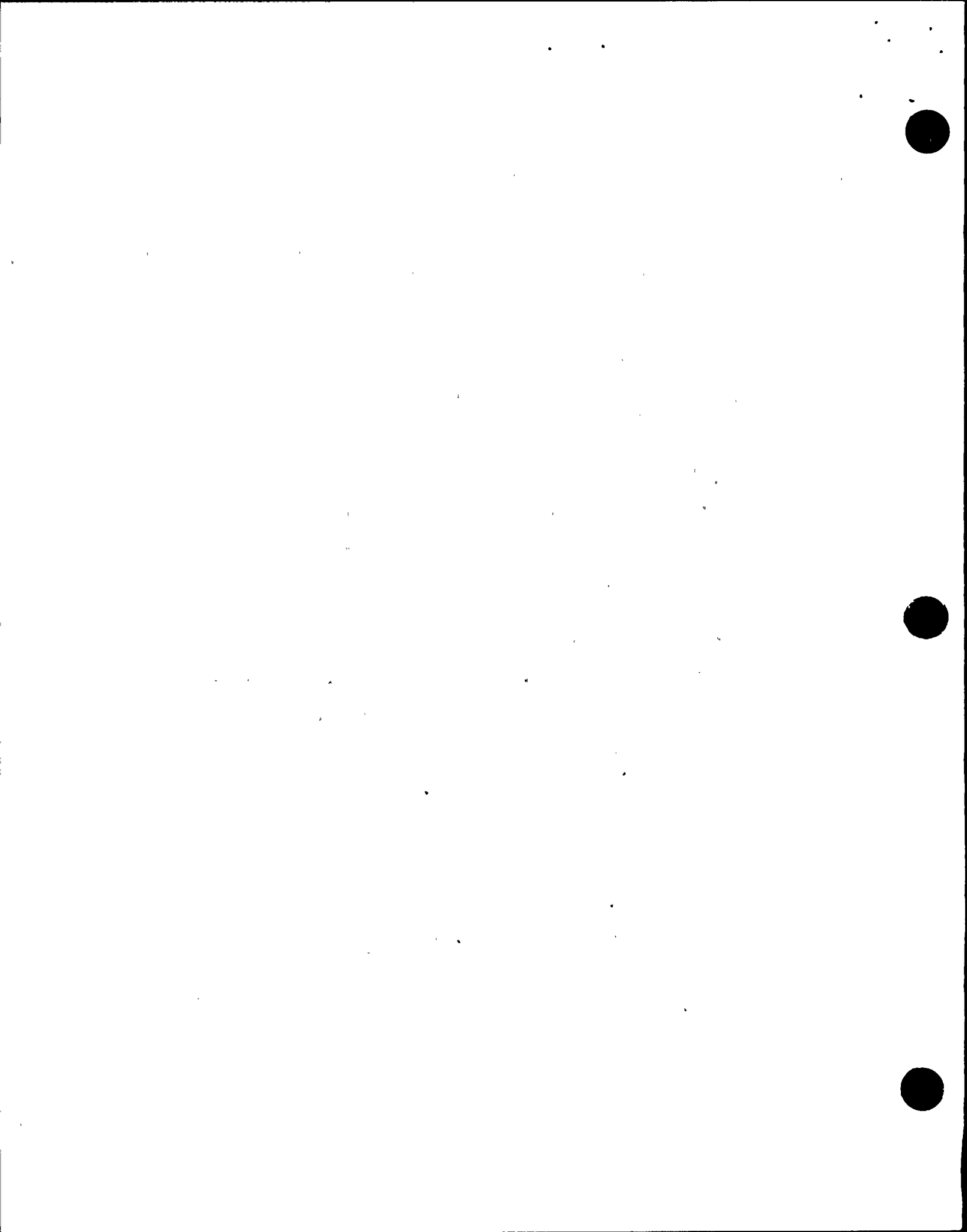
-N2-POT-30, Control Rod Drive Hydraulics

On June 3, 1986 the inspector witnessed the individual rod scram time test of Rod 30-27. The inspector discussed the method of rod timing with the test engineer and a General Electric (GE) representative. Through discussion the inspector learned that a majority of the control rods had exhibited an insertion time that was slightly faster than allowed by specification. Minimum insertion time by GE specification is 1.5 seconds. The inspector independently reviewed six additional visicorder traces of rod insertion times. All six traces indicated insertion times of greater than 1.4 seconds but slightly less than 1.5 seconds. The inspector also reviewed the buffer action shown on the individual traces and determined that all buffer action, for the charts reviewed, was acceptable. Times were greater than 0.25 seconds from pickup of No. 3 reed switch to dropout of 00 reed switch. The GE representative noted that a field deviation disposition request (FDDR) had been implemented to resolve the fast rod insertion time issue.

A full core scram test had also been scheduled for performance during the week. However, because of other plant conditions, it was rescheduled for June 9, 1986.

-N2-POT-34, Automatic Depressurization System

On June 4, 1986 the inspector observed portions of POT-34 performance and reviewed the completed portions of the test. Testing to be conducted was checkout of ADS valve solenoids in auto and manual keylock switch positions. Initial testing was delayed to troubleshoot the system when a solenoid would not function in auto. The problem was traced to a defective keylock switch. Discussions with the System Test Engineer (STE) indicated that other problems with this type switch (GE Model CR2940) had been previously experienced on this system. As testing proceeded a second keylock switch problem developed which was identical to the first problem.



The STE wrote two test deficiencies and issued deficiency reports (DR) 19839 and 19840 to replace keylock switches B22C-S25 and B22C-S17. The inspector observed nine (9) valve solenoids being tested and two switch failures. The inspector informed licensee management personnel about the seemingly high switch failure rate. The inspector will review licensee data during a future inspection for generic implications. The inspector also contacted AEOD to do a data search to see if similar problems had been experienced with GE CR2940 switches at other facilities.

2.3 Findings

Testing was being conducted in accordance with approved written procedures and satisfied the criteria referenced in Paragraph 2.1 above.

3.0 Preoperational Test Results Evaluation Review

3.1 Scope

The completed test procedures listed below were reviewed during this inspection to verify that adequate testing had been conducted to satisfy regulatory guidance, licensee commitments and FSAR requirements and to verify that uniform criteria were being applied for evaluation of completed test results in order to assure technical and administrative adequacy.

The inspector reviewed the test results and verified the licensee's evaluation of test results by review of test changes, test exceptions, test deficiencies, "As-Run" copy of the test procedure, acceptance criteria, performance verification, recording conduct of test, QC inspection records, restoration of system to normal after test, independent verification of critical steps or parameters, identification of personnel conducting and evaluating test data, and verification that the test results have been approved.

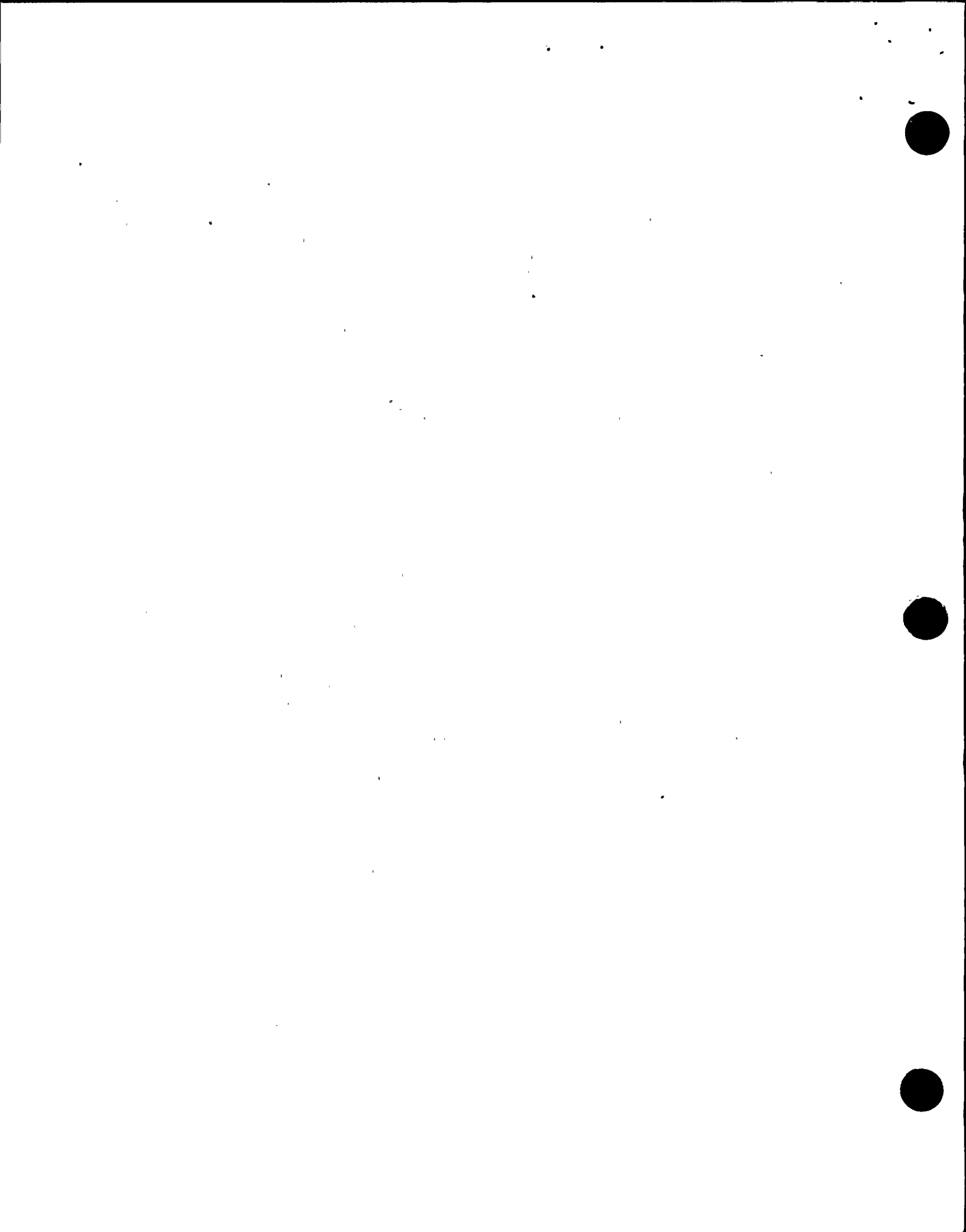
-N2-POT-86, Loose Parts Monitoring, Revision 1, results approved by Station Operations Review Committee (SORC) on April 26, 1986,

-N2-POT-61-2, Standby Gas Treatment System, Revision 2, results approved by SORC on May 23, 1986,

-N2-POT-74-1, 125V Emergency DC Distribution Division I, Revision 3, results approved by SORC on May 2, 1986,

-N2-POT-74-2, Division II Emergency DC System Revision I, results approved by SORC on May 23, 1986, and

-N2-POT-74-3, Division III Emergency DC System, Revision I, results approved by SORC on May 16, 1986.



3.2 Discussion

During review of N2-POT-74-3 the inspector noted that the first capacity discharge test of the Division III battery had failed and had subsequently been reperformed. The first test failed because capacity is determined by time at a set rate. The discharge rate during the initial test was higher than the predetermined rate and resulted in a time to terminal (final) voltage of less than 90 percent battery capacity. The retest discharge rate was below that required and resulted in unacceptable results. The STE performed calculations based on obtained data from the first test to show that battery capacity at the 6.8 hour discharge rate (actual rate vice 8 hr. rate desired) would provide fully acceptable results. The inspector independently calculated the battery capacity using the available data and verified the STE's determination.

3.3 Findings

No unacceptable conditions were identified during the above review. Two deficiency reports remain open on the standby gas treatment system which do not affect its operability and are being tracked by the licensee.

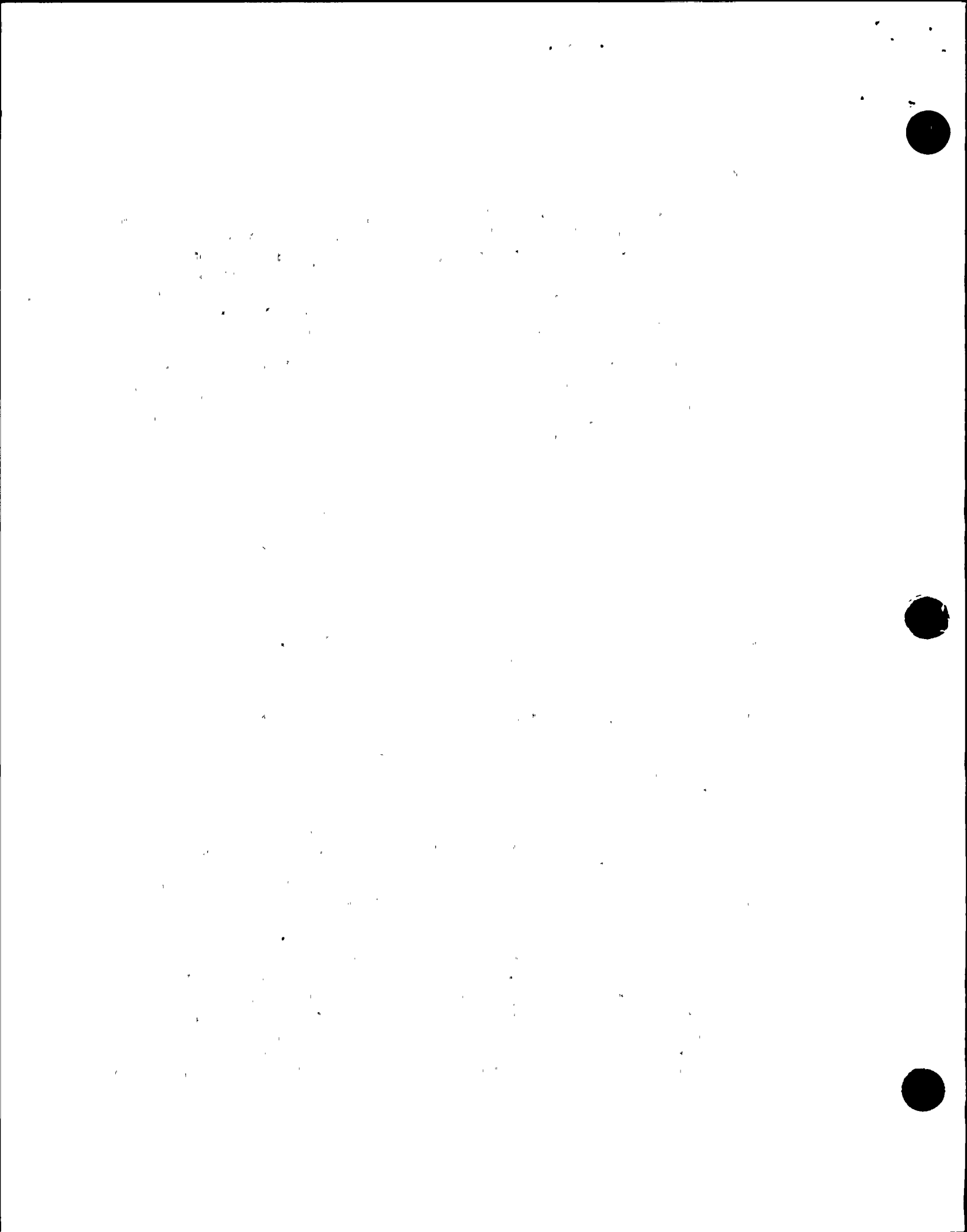
4.0 QA/QC Interface with the Preoperational Test Program

The inspector reviewed several recent Nuclear Quality Assurance Surveillance Reports (NQASR) regarding different activities of the licensee's startup and test department (STD). The following NQASR's were reviewed:

-NQASR No. SR-86-10405, Surveillance of N2-POT-45, Fire Protection CO₂, Revision 3. Surveillance was completed on May 4, 1986. Testing performed failed to meet the required CO₂ concentrations in the areas tested. Deficiency reports (DR) No. 18331 and 18329 were issued to track and resolve the identified problem.

-NQASR No. SR-86-10447, Verification of N2-POT-34, ADS prerequisites, dated May 27, 1986. The QA inspector noted that several prerequisites had not been completed; however, paragraph 4.1.1.1 of the procedure (POT-34) had been signed indicating all prerequisites were complete. The test engineer agreed to make a test summary note to explain any incomplete prerequisites.

-NQASR No. SR-86-10455, Surveillance of flushing of the DBA Recombiner System, dated May 30, 1986, issued for SUT response on June 6, 1986. During this surveillance the QA inspector noted that a flushing sample point had been changed to a point other than that required by the JTG approved procedure. QA recommended that a Field Revision Form (FRF) be generated (intent or scope change). The STE desired a test exception (non intent change). This item was discussed with licensee management at the



exit meeting. Management was unaware of the item since it had just been issued for resolution on June 6, 1986. The inspector noted that the response to this item would be reviewed during a subsequent routine inspection.

4.1 Findings

No violations were identified during the above review.

5.0 Independent Verification

The inspector independently determined individual control rod insertion speeds and verified proper buffer action by review of visicorder charts as discussed in Paragraph 2.2 of this report. The inspector also independently verified the acceptability of the Division III battery discharge capacity test as discussed in Paragraph 3.2 of this report.

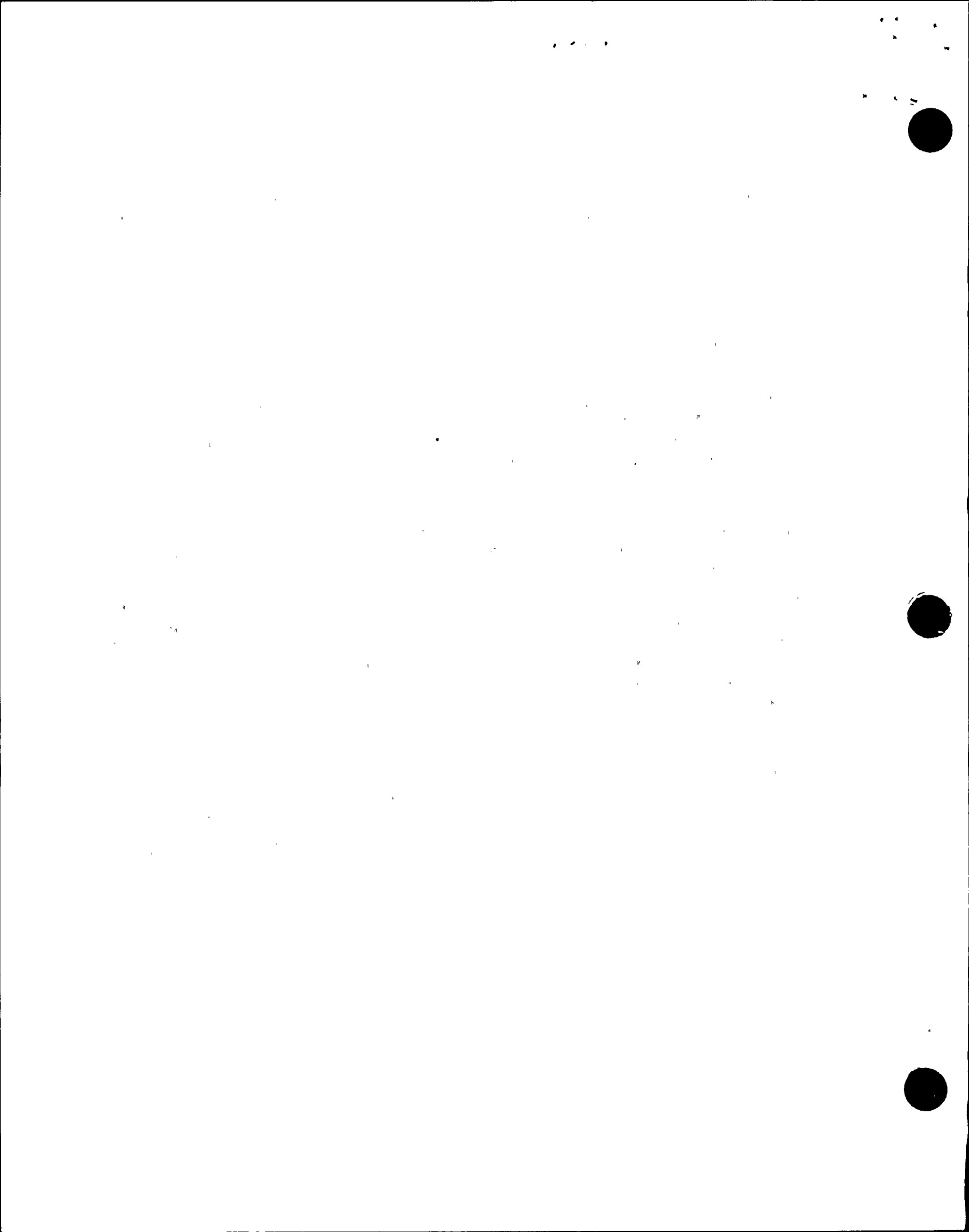
6.0 Plant Tours and Meetings

The inspector toured various areas of the facility to observe work in progress, housekeeping, cleanliness controls and status of construction and testing activities.

The inspector also randomly attended the licensee's morning Startup Plan of the Day meeting during which the current status of preoperational testing activities and any holds or delays are discussed. Other items such as surveillance and outage activities are also discussed. The inspector found the meetings informative and well controlled considering the large number of personnel in attendance.

7.0 Exit Interview

A management meeting was held at the conclusion of the inspection on June 6, 1986 to discuss the inspection scope, findings and observations as detailed in this report (see Paragraph 1 for attendees). No written information was provided to the licensee at any time during this inspection. The licensee did not indicate that any proprietary information was contained within the scope of this inspection.



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