

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION III  
799 ROOSEVELT ROAD  
GLEN ELLYN, ILLINOIS 60137

DEC 1 1975

Commonwealth Edison Company  
ATTN: Byron Lee, Jr.  
Vice President  
P. O. Box 767  
Chicago, Illinois 60690

Docket No. 50-10  
Docket No. 50-237  
Docket No. 50-249

Gentlemen:

This refers to the inspection conducted by Messrs. Johnson and Harpster of this office on October 6-10, 15-16, 21-22, 28, 30 and November 3, 1975, of activities at Dresden Nuclear Power Station Units 1, 2 and 3 authorized by NRC Operating Licenses No. DPR-2, No. DPR-19 and No. DPR-25 and to the discussions of our findings with Mr. Stephenson and others of your staff at the conclusion of the inspection.

A copy of our report of this inspection is enclosed and identifies the areas examined during the inspection. Within these areas, the inspection consisted of a selective examination of procedures and representative records, interviews with plant personnel, and observations by the inspectors.

During this inspection, it was found that certain of your activities appear to be in noncompliance with NRC requirements. The items and reference to the pertinent requirements are listed under Enforcement Action in the Summary of Findings section of the enclosed inspection report.

This notice is sent to you pursuant to the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office within twenty days of your receipt of this notice, a written statement or explanation in reply, including: (1) corrective steps which have been taken by you, and the results achieved; (2) corrective steps which will be taken to avoid further items of noncompliance; and (3) the date when full compliance will be achieved. Except for Infraction No. 3, such a statement or explanation should be provided for each noncompliance item listed. Prior to the conclusion of the inspection, the inspectors

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determined that corrective action had been taken with respect to Infraction No. 3, and we have no further questions regarding this item at this time.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this notice, the enclosed inspection report, and your response to this notice will be placed in the NRC's Public Document Room. If this report contains any information that you or your contractors believe to be proprietary, it is necessary that you make a written application to this office, within twenty days of your receipt of this notice, to withhold such information from public disclosure. Any such application must include a full statement of the reasons for which it is claimed that the information is proprietary, and should be prepared so the proprietary information identified in the application is contained in a separate part of the document. Unless we receive an application to withhold information or are otherwise contacted within the specified time period, the written material identified in this paragraph will be placed in the Public Document Room.

Another deficiency identified by your management controls program which was corrected in a timely manner is set forth under "Other Significant Findings" in the Summary of Findings section of the attached inspection report. No additional information is needed for this item at this time.

Should you have any questions concerning this inspection, we will be glad to discuss them with you.

Sincerely yours,

G. Fiorelli, Chief  
Reactor Operations and  
Nuclear Support Branch

cc w/encl:

B. Stephenson, Station  
Superintendent

bcc w/encl:

PDR  
Local PDR  
NSIC  
TIC  
Anthony Roisman, Esq., Attorney

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

REGION III

Report of Operations Inspection

IE Inspection Report No. 050-010/75-17  
IE Inspection Report No. 050-237/75-23  
IE Inspection Report No. 050-249/75-20

Licensee: Commonwealth Edison Company  
P. O. Box 767  
Chicago, Illinois 60690

Dresden Nuclear Power Station  
Units 1, 2, and 3  
Morris, Illinois

License No. DPR-2  
License No. DPR-19  
License No. DPR-25  
Category: C

Type of Licensee: BWR (GE) 200 and 810 MWe

Type of Inspection: Routine, Unannounced

Dates of Inspection: October 6-10, 15-16, 21-22,  
28, 30 and November 3, 1975

Principal Inspector: P. H. Johnson

11/23/75  
(Date)

Accompanying Inspector: T. L. Harpster  
(October 6-10 and  
November 3, 1975)

11/23/75  
(Date)

Reviewed By: R. C. Knop, Section Leader  
Nuclear Support

11/23/75  
(Date)

## SUMMARY OF FINDINGS

### Inspection Summary

Inspection on October 6-10, 15-16, 21-22, 28, 30 and November 3 (Dresden 1, 75-17): Review of plant operations; reportable occurrences; limiting conditions for operation, limiting safety system settings, and safety limits; instrument calibration; equipment surveillance; and refueling preparations. Four noncompliance items, related to review of completed surveillance tests, implementation of surveillance procedures, and labeling of nonconforming materials.

Inspection on October 6-10, 15-16, 21-22, 28, 30 and November 3 (Dresden 2, 75-23): Review of spent fuel packaging and shipping and events related to a cracked containment purge line. Two noncompliance items, related to operating procedure implementation and fuel cask temperature and leak test documentation.

Inspection on October 6-10, 15-16, 21-22, 28, 30 and November 3 (Dresden 3, 75-20): Review of startup preparations, post-outage plant startup, and related testing activities. Two noncompliance items, related to review of completed surveillance tests and documentation of hydrostatic test results.

### Enforcement Items

The following items of noncompliance were identified during the inspection:

#### A. Infractions

1. Contrary to paragraph 6.2.A.7 of the Dresden 1 and 3 Technical Specifications and related facility procedures, test results for the following required tests did not satisfy specified acceptance criteria and subsequent supervisory review did not identify the discrepancies:
  - a. Two Unit 1 reactor high pressure scram pressure switches had as-found and as-left reset points outside the limits specified in the procedure, as indicated by a March, 1975, calibration record. (Paragraph 9.b, Report Details)
  - b. The data sheet for a Unit 1 neutron high flux trip functional test performed on September 30, 1975, showed one instrument to have been left with a trip point higher than allowed by the licensee's procedure. (Paragraph 9.b, Report Details)
  - c. The data sheet for a quarterly Unit 3 HPCI flow test performed

on September 9, 1975, showed measured flow at two test points to have been slightly less than required by Technical Specifications. (Paragraph 7.b, Report Details)

- d. Records of Unit 3 control rod drive friction tests performed prior to unit startup following the refueling outage showed unacceptable friction test results for two drives with no performance of a followup settle test as required. One other drive showed a settle test result which did not satisfy acceptance criteria specified in the licensee's procedure. (Paragraph 7.c, Report Details)
2. Contrary to paragraph 4.1.A of the Dresden 1 Technical Specifications, four surveillance tests were only partially completed due to plant conditions and were not subsequently completed prior to returning the systems to an operable status. (Paragraph 9.c, Report Details)
3. Contrary to paragraph 6.2.A.1 of the Dresden 2 Technical Specifications and the licensee's containment inerting procedure, nitrogen flow was not reduced upon receipt of a low temperature alarm on the drywell inlet purge piping. (Paragraph 6.c, Report Details)
4. Contrary to Criterion XV of 10 CFR 50, Appendix B, and Commonwealth Edison Quality Procedure 15-51, neither reject nor hold tags were attached to two nonconforming Unit 1 control rod drive accumulators observed in the facility warehouse. (Paragraph 4.b, Report Details)

B. Deficiencies

1. Contrary to 10 CFR 71.12(d), Certificate of Compliance No. 9001, and the licensee's procedures, fuel cask temperature and leak test data were not recorded for four fuel shipments made from Dresden 2 in early September, 1975. (Paragraph 5.a, Reports Details)
2. Contrary to paragraph 6.5.B.1 of the Dresden 3 Technical Specifications, documentation of satisfactory completion of a hydrostatic test following replacement of Unit 3 recirculation bypass lines could not be located for the inspector's review. (Paragraph 7.a, Report Details)
3. Contrary to paragraph 6.2.A.7 of the Dresden 1 Technical Specifications and the licensee's calibration procedure, the calibration of reactor vessel low level scram pressure switches was not being checked at cardinal points over the range of the instrument. (Paragraph 10.a, Report Details)

Licensee Action on Previously Identified Enforcement Items

Not reviewed.

Other Significant Items

A. Systems and Components

The licensee discovered a crack in the Unit 2 containment purge line on October 7, 1975. (Paragraph 6, Report Details)

B. Facility Items

None.

C. Managerial Items

None.

D. Noncompliance Identified and Corrected by Licensee

Contrary to 10 CFR 70.51(c) and the licensee's fuel shipment procedures, an incorrect fuel bundle was inadvertently included in an offsite shipment of expended fuel from Dresden 2, in September, 1975. (Paragraph 5.b, Report Details)

E. Deviations

None.

F. Status of Previously Reported Unresolved Items

Not reviewed.

Management Interview

The inspectors conducted an interview with Messrs. Stephenson (Station Superintendent), Abel (Administrative Assistant), and other members of the station staff at the conclusion of the inspection on November 3. The following matters were discussed:

A. The inspector summarized the findings of the inspection related to Unit 1 calibration and surveillance.

1. The content of certain areas of calibration procedures did not conform with the ANSI 18.7 standard. (Paragraph 9.a, Report Details)

2. The licensee's review of calibration/surveillance data did not appear to be effective. The inspector noted, that on two occasions, out of specification instrument settings had been reviewed and approved by supervisory personnel with no subsequent action being taken to correct the conditions. (Paragraph 9.b, Report Details)
3. The licensee's system for tracking surveillance did not appear to be adequate. The inspector noted that on four occasions when the scheduled surveillance test could not be completed because of plant conditions, the surveillance was not subsequently completed prior to returning the system to an operable status. (Paragraph 9.c, Report Details)
4. The Reactor Vessel Low Water Level Scram calibrations were not being conducted in accordance with the calibration procedure, in that the instrument was not being calibrated over its range. (Paragraph 10.a, Report Details)

The inspector identified items 2, 3, and 4 as items of non-compliance. In response, the licensee stated that: (1) calibration procedures for safety related instruments would be reviewed and revised where they were found to be inadequate, and (2) the problem of ensuring that the required surveillance was completed prior to startup would be reviewed and resolved.

- B. The inspector summarized the findings of the inspection related to Unit 1 refueling preparations and maintenance. No discrepancies were noted. (Paragraphs 11 and 12, Report Details)
- C. Shipment of expended fuel from Unit 2 was discussed. The inspector stated that one noncompliance item related to recording of leak test and temperature data had been identified, and made a general comment that the procedures used for cask handling and shipping should be reviewed to ensure that they fulfill and document all requirements in the Certificate of Compliance. The inspector also stated that the shipment of an incorrect bundle would be documented as a noncompliance item identified and corrected by the licensee. (Paragraph 5, Report Details)
- D. The inspector stated that a review of Unit 1 plant operation had been conducted with no noncompliance identified. He stated that, as discussed in a previous inspection report, reviewers' initials were interfering with the clarity of jumper log entries. (Certain improvements in step-off pads were also noted to be needed. (Paragraph 2, Report Details)
- E. The inspector stated that a review of safety limits, limiting safety settings, and limiting conditions for operation had been conducted for Unit 1, with no noncompliance identified. The inspector noted

that a work request had documented failure of the 529-ft. continuous air monitor alarm on August 30, but that operability of the alarm did not appear to have been recognized as part of a limiting condition for operation. Noncompliance was apparently avoided only because an unscheduled outage terminated plant operation within the 48 hour time period allowed by the Technical Specifications. The inspector also stated that review of safety valve inspection data sheets should be considered to provide more clarity of documentation. With relation to startup prerequisites, the inspector noted that current Unit 1 procedures require completion of the full master startup checklist prior to any reactor startup, including a scram recovery. The licensee acknowledged the inspector's comments. (Paragraph 3, Report Details)

- F. The licensee was advised that a review of four recent Unit 1 abnormal occurrences had been conducted and that review of the unloader return line replacement would continue. The inspector stated that no items of noncompliance had been identified with respect to the four occurrences, although followup review of a deviation report had resulted in a finding that two nonconforming CRD accumulators had not been tagged as required by the licensee's quality procedures and 10 CFR 50, Appendix B. (Paragraph 4, Report Details)
- G. The inspector summarized the findings related to his review of activities associated with the startup of Unit 3 following its recent refueling outage. He stated that noncompliance had been identified relative to (1) inability of licensee personnel to locate documentation of the initial hydrostatic test, (2) failure of a September 9, HPCI flow test to satisfy performance requirements, and (3) discrepancies noted during review of control rod drive friction tests. The inspector stated that other procedures, tests, and startup checklists reviewed during the inspection were found to have been in accordance with regulatory requirements. The licensee acknowledged the inspector's comments. (Paragraph 7, Report Details)
- H. The inspector stated that review of the crack in the Unit 2 drywell inerting line and its probable cause had disclosed an instance of noncompliance with the licensee's operating procedures, in that nitrogen flow had not been reduced to clear the low temperature alarm on the purge line. He noted, however, that his review showed the licensee to have taken corrective actions to prevent recurrence, and that a response to the item of noncompliance would not be required. (Paragraph 6, Report Details)



## REPORT DETAILS

### Part 1

Prepared by P. H. Johnson

#### 1. Persons Contacted

B. Stephenson, Station Superintendent  
A. Roberts, Assistant Superintendent  
J. Abel, Administrative Assistant  
J. Bell, Maintenance Foreman  
E. Budzichowski, Unit 1 Operating Engineer  
J. Dodge, Nuclear Station Operator  
J. Dolter, Leading Nuclear Engineer  
D. Dransfeldt, Nuclear Station Operator  
F. Dunkel, Shift Engineer  
G. Frankovich, Master Mechanic  
G. Harrison, Unit 1 Leading Engineer  
W. Hildy, Instrument Engineer  
T. Kraakevik, Staff Assistant  
J. Kolanowski, Unit 2 Leading Engineer  
J. Lamping, Maintenance Staff Assistant  
D. Maxwell, Quality Control Inspector  
R. Nimmer, Engineering Assistant  
J. Pearson, Nuclear Station Operator  
R. Ragan, Unit 3 Operating Engineer  
T. Rausch, Nuclear Engineer  
G. Romba, Engineer  
N. Scott, Unit 2 Operating Engineer  
D. Simpson, Refueling Foreman  
F. Stellwag, Refueling Foreman  
J. Sullivan, Nuclear Station Operator  
R. Thomas, Instrument Foreman  
J. Toscas, Nuclear Engineer  
T. Watts, Technical Staff Supervisor  
M. Wright, Quality Control Engineer  
J. Wulf, Refueling Foreman

#### 2. Review of Plant Operation (Dresden 1)

The inspection included a review of Unit 1 operation during the months of August, September and October 1975, with no noncompliance items noted, although the inspector presented the following comments during the management interview at the conclusion of the inspection:

- a. As noted during a previous inspection, initials indicating review of the jumper log were interfering with the clarity of jumper entries. The inspector stated that if initials were still desired in the jumper log (in addition to those required

1/ IE Inspection Report No. 050-010/75-16.

on the shift surveillance schedule), separate space should be provided.

- b. A continuing need for improved housekeeping was noted.
- c. Some worn step-off pads were noted during a tour of the reactor enclosure. Rubber shoe covers were also observed inside a radiation barrier near the C instrumentation room, indicating that personnel were passing under the barrier as a means of access. The inspector noted that the barrier should be replaced by a step-off pad if that location were to be used as an access to a controlled area.
- d. An entry in the Unit 1 reactor log on October 9, discussed a cable tray fire inside the reactor enclosure. Further review showed the entry to have referred to an arcing lighting cable near the steam drum level which involved no safety related equipment. A deviation report was submitted and was reviewed by station management the following day. The inspector also reviewed a fire report, which indicated the situation to have been promptly corrected with the use of a CO<sub>2</sub> fire extinguisher.

3. Review of Safety Limits, Limiting Safety System Settings, and Limiting Conditions for Operation (Dresden 1)

The inspection included review of selected aspects of Unit 1 operation against the requirements of Technical Specifications safety limits, limiting safety system settings, and limiting conditions for operation. The review included examination, where appropriate, of logs, recorder charts, surveillance and maintenance records, and other documents relating to plant operation. No noncompliance was noted during the review, although the following comments resulted:

- a. A work request issued on August 30, indicated that the control room alarm associated with the continuous air monitor on the 529-foot level of the reactor enclosure was declared inoperable, as evidenced by an actual reading higher than the alarm setpoint. Paragraph 3.6.D.2 of the Technical Specifications states that operation for a period longer than 48 hours with the monitor or its alarm inoperable requires review and approval of the onsite review group. Unit 1 was subsequently shut down on September 1, 1975, following the discovery of an unisolable reactor coolant system leak (see paragraph 4.a), such that operation with the alarm inoperable did not exceed 48 hours. The inspector noted, however, that an infraction of the Technical Specifications would likely have occurred were it not for the unscheduled shut-down, since discussion with operating personnel involved did not indicate the control room alarm to have been recognized as a

limiting condition for operation. This was discussed further during the Management Interview.

- b. Available records were adequate to establish that the set-points of installed primary safety valves satisfied the requirements of paragraph 2.2.B of the Technical Specifications, although some of the data were not clear without explanation by licensee representatives. One copy of the safety valve inspection data sheet was completed for each safety valve during its out-of-plant inspection, and the measured set pressure was recorded. A separate copy of the data sheet was completed to document satisfactory condition of the rupture diaphragm after reinstallation of the safety valve on the steam drum. In this case, the design pressure of the safety valve was recorded on the data sheet for reference purposes. The inspector asked the licensee to consider reviewing the data sheet and related procedures to (1) minimize the use of redundant copies of the data sheet for each safety valve and (2) more clearly indicate that the set pressure recorded is the actual set pressure demonstrated during the lift test (e.g., possibly by recording both desired and actual set pressures).
- c. Review of limiting conditions for operation related to electrical lineup for reactor startup showed all prerequisites to be included on the Master Starter Checklist (DCP 1-S1). The previous scram recovery procedure was noted to have been cancelled, such that the only startup procedure for Unit 1 was the "Normal Unit Startup" procedure (DCP 1-1), which requires completion of the 9-page DCP 1-S1 checklist prior to startup. The inspector expressed no related concern, but stated that in the absence of an abbreviated startup procedure or checklist, completion of the entire checklist would be expected even for a scram recovery. He also noted that the licensee might wish to consider an abbreviated startup procedure or checklist, provided that documentation of Technical Specifications startup prerequisites and requirements was retained.

4. Review of Reportable Occurrences (Dresden 1)

A review of reporting, corrective actions, licensee review and evaluation, and compliance with regulatory requirements was conducted for the following occurrences:

<u>Event Title</u>	<u>Event Date</u>	<u>Licensee Report Date</u>
Failure of Core Spray Valve MO-CS-33 (UE)	7/23/75	8/7/75
Unit 2/3 Diesel Fire Pump Trip	8/29/75	9/8/75
Crack in Unloading Heat Exchanger Line	9/1/75	9/11/75

<u>Event Title</u>	<u>Event Date</u>	<u>Report Date</u>
Excessive Leakage Through Sphere Ventilation Exhaust Isolation Valve	9/25/75	10/1/75 11/3/75

The inspector's review showed the events listed above and related corrective actions to have been as described in the referenced licensee reports, with comments as follows:

- a. Event No. 3: The inspector noted that IE review of the un-loader return line replacement would continue during subsequent inspections.
  - b. Separate review of the deviation report file disclosed a deviation report related to nonconformance of six CRD accumulators due to improper storage. Examination of the accumulators showed them to have had QC hold tags attached as required. However, two additional CRD accumulators stored with the initial six were being held for shipment off-site due to unacceptable pitting on the interior surface. An unconditional release tag had been attached, and a licensee representative identified discrepancy records which had been written concerning the two accumulators, but no tag was attached to indicate their nonconforming status. Paragraph 8 of Commonwealth Edison Quality Procedure 15-51 requires that nonconforming components being prepared for shipment offsite have a reject tag attached when the QC hold tag is removed. This was identified as an item of noncompliance with the Company's Quality Assurance Procedures and Appendix B to 10 CFR 50.
  - c. The inspector examined work requests associated with maintenance performed on the diesel fire pump battery charger (August 19) and the sphere personnel air lock (September 6) for compliance with Technical Specifications reporting requirements. No discrepancy was noted.
5. Spent Fuel Packaging and Shipping (Dresden 2)

Four shipments of expended fuel from the Unit 2 Fuel storage pool to the Midwest Fuel Recovery Plant were made by the licensee using IF-300 shipping casks in early September 1975. The inspector's review of these shipments included examination of the approved procedure, discussions with licensee representatives involved with the fuel shipments, review of records required by 10 CFR 71, and examination of completed records associated with each shipment. Limited observation of fuel shipping activities was also made on September 5, 1975, during a previous inspection. The following comments resulted from the inspector's review:

- a. Activities involving handling and shipment of expended fuel and

the fuel cask were determined to have been conducted in accordance with the licensee's procedures, the Certificate of Compliance for the IF-300 fuel cask, and 10 CFR 71, except for the recording of fuel cask data after loading. Specifically, data associated with the cask pressure test were not recorded as required by the licensee's procedure, although the notation "leak test sat" was recorded in the refueling log. Also, cask temperature rise data were not recorded prior to shipping as required by the licensee's procedure and by paragraph 8(b) of Certificate of Compliance No. 9001. These omissions were noted to represent an item of noncompliance. The inspector stated that the licensee's procedure should be reviewed against the Certificate of Compliance to assure that all requirements are satisfied and properly documented during future shipments.

- b. Review by the licensee subsequent to the second shipment disclosed that fuel bundle No. DN364 had been inadvertently shipped with that shipment instead of No. DN723 as specified on the fuel loading check-off list.

Representatives stated that DN364 came from an adjacent location in the fuel storage pool and that its heat rate and cooling time (approximately 3-1/2 years) were acceptable. The inspector examined a procedure change requiring the bundle serial numbers of subsequent fuel shipments to be verified by a member of the technical staff prior to cask head installation. The inspector stated that the item represented noncompliance with regulatory requirements, but the licensee was considered to have taken action to prevent recurrence.

6. Through-Wall Crack in Containment Purge Line (Dresden 2)

During the inspection the inspector was informed of the discovery on October 7, of a through-wall crack in an 18" section of Unit 2 containment purge piping. The crack was subsequently reported to the NRC as an abnormal occurrence.<sup>2/</sup> Review of logs, observation by the inspector, and discussions with operating personnel showed that:

- a. The crack was located in the base metal of the 18" purge line around the penetration where the 8" nitrogen inlet line joins it. The crack spiraled from near the weld outward to a distance of about 3 inches, circling more than half way around the 8" pipe. Cracks in the rubber seats of the vent inlet valve (AO 1601-22) and the drywell purge/vent inlet valve (AO 1601-21) were clearly visible.
- b. The cause of the event was probably as described in the

<sup>2/</sup> Letter, Stephenson to Keppler, dated 10/17/75, (AO report 237/75-48).

abnormal occurrence report; i. e., that the crack resulted from loss of the heating steam boiler while inerting the drywell on October 1, 1975, thereby permitting liquid nitrogen to pass through the piping into the drywell.

- c. Control room alarms indicating heating boiler trouble and low temperature in the drywell inlet piping were apparently disregarded by operating personnel, who stated that low temperature annunciation during inerting was not an abnormal indication. It was also stated that the "heating boiler trouble" annunciator had been previously illuminated for unrelated reasons and had apparently not been reset. The inspector noted that failure to respond to the low temperature indication at the drywell inlet was contrary to step F.16 of the inerting procedure (DOP 1600-6), which states "Decrease nitrogen flow rate if low temperature alarm setpoint is reached. . . ." This was noted to represent an item of non-compliance.

The inspector reviewed a new procedure, SOP 73, which had been issued to provide improved monitoring of nitrogen temperatures during inerting, as described in the abnormal occurrence report. A plant modification being considered to provide automatic termination of nitrogen flow on low temperature was also discussed.

The inspector obtained from the licensee a commitment that action would be taken so that a low temperature alarm at the containment purge inlet would be indicated only during actual abnormal conditions and not during normal containment inerting. The licensee was advised that in view of this commitment and other actions already taken by the licensee, a response to this noncompliance item would not be required.

#### 7. Review of Activities Associated with Dresden 3 Post-Outage Startup

The inspector reviewed activities associated with the startup of Unit 3 following its recent refueling outage. This included review of the availability of appropriate procedures, pre-startup and post-startup testing of systems and equipment as required, and the use of approved procedures and checklists for startup activities. The review generally showed activities associated with the Unit 3 startup to be in compliance with regulatory requirements. Three exceptions were noted, as follows:

- a. A hydrostatic test was performed on the reactor coolant system to verify proper installation of the replaced recirculation bypass piping and leak-tightness of the reactor vessel flange, CRD flanges, and other portions of the reactor coolant system

prior to startup. The reactor log and licensee representatives indicated several CRD flange leaks to have been identified during the performance of this hydrostatic test, and these were satisfactorily tested by a second hydrostatic test following repairs. Licensee representatives stated that the initial hydrostatic test had verified satisfactory installation of the recirculation bypass piping. The inspector reviewed the test results for the second hydrostatic test; however, the completed test procedure for the initial hydrostatic test could not be located by licensee personnel over a period of approximately three weeks. This was identified as an item of noncompliance with the records retention requirements of Section 6.5 of the Technical Specifications.

- b. A quarterly HPCI flow test was performed on September 9, 1975, following unit startup. The test data sheet showed the 5000 gpm flow required by paragraph 4.5.C.1 of the Technical Specifications to have been demonstrated at three of the five different pump discharge pressures. Only 4920 gpm flow was recorded at the 500 and 900 psig test conditions, although the data sheet had been signed off by the operator and shift engineer and no notation of unacceptable performance or corrective measures was evident. This was identified as an item of noncompliance with regulatory requirements.
- c. Review of CRD friction test results conducted as part of refueling startup checks showed that two drives with differential pressures greater than 15 psi (B-6 with 22 psi and L-10 with 16 psi) were not given a settle test as required by the friction test procedure. One other drive (H-13) had a recorded settle test pressure of 20 psi. The friction test procedure stated that a drive with a settle pressure of less than 30 psi should be tested further, although it was noted that this could be performed at a later date. However, no notation was made during documentation and review of the test results that the settle pressure on H-13 was less than required or that the friction test results for B-6 and L-10 were unacceptable. These discrepancies between recorded test results and acceptance criteria were stated by the inspector to represent noncompliance with Regulatory requirements.

REPORT DETAILS

PART II

Prepared By: T. L. Harpster

11/26/74  
(Date)

Reviewed By: W. S. Little

11/26/74  
(Date)

8. Personnel Contacted

A. Roberts, Assistant Superintendent  
E. Budzichowski, Unit 1, Operating Engineer  
C. Sargent, Acting Technical Staff Supervisor  
J. Dolter, Leading Nuclear Engineer  
W. Hildy, Instrument Engineer  
W. Pietryga, Nuclear Engineer  
R. Thomas, Instrument Foreman  
A. Zapatocky, Instrument Foreman  
R. Campbell, Engineering Assistant  
R. Nimner, Engineering Assistant  
E. Mazur, Outage Planner  
N. Terrel, Outage Planner  
E. Johnson, Quality Control Inspector  
D. Adams, Radiation-Chemistry Supervisor  
C. Maney, Staff Assistant

9. Surveillance (Dresden 1)

The inspector reviewed surveillance records to ascertain whether the surveillance of components or equipment associated with safety related systems or components is being conducted as required by Technical Specifications and in accordance with approved procedures.

The following items were considered during this review: procedure content with regard to test prerequisites and preparations, acceptance criteria, functional tests of instrumentation specified for use in conduct of the surveillance, operational checks prior to returning equipment to service, technical content, and review and approval.

a. The following procedures were reviewed:

- (1) "Reactor High Pressure Scram"  
33-500-0-I Rev. 0
- (2) "Neutron Flux High Scram"  
33-700-0-II Rev. 0



- (3) "Reactor Thermal Heat Balance Calculation"  
200-S-VI Rev. 0
- (4) "Condenser Low Vacuum Scram"  
33-3300-0-II Rev. 0
- (5) "Reactor Vessel Low Water Level Scram and ECCS"  
33-500-0-II Rev. 0

Although no noncompliance was noted during review of these procedures, the following comments resulted from the review:

- (1) These procedures contained no precautions concerning limiting conditions for operation of the respective system.
  - (2) Specific test instrumentation was not specified for use in conduct of the surveillance.
  - (3) A separate procedure, 33-000-III Rev. 0, existed to ensure functional testing of test instruments prior to conduct of the surveillance, but there is no reference to 33-000-III in the surveillance procedures.
  - (4) Although the procedures required test results to be reviewed, no specific provision was made on the data sheet to show that this review had been performed and the results approved. The inspector's review showed, however, that supervisory reviews were being conducted as required.
  - (5) Personnel in the Instrument Department directly involved in writing procedures were not familiar with the ANSI 18.7 standard.
- b. During the review of selected surveillance test results, the inspector noted two instances in which "as left" settings were not in compliance with procedure acceptance values.
- (1) The data sheet for the Reactor Coolant High Pressure Scram calibration on March 22, 1975, contained entries for the as-left settings of pressure switches PSH-1 and PSH-4 (Reset function) which were less than the 1045  $\pm$  5 psig acceptance value range required by the calibration procedure. These entries were reviewed and approved by the Instrument Foreman. No record was found of subsequent action being taken to correct this condition.
  - (2) The data sheet for the Neutron Flux High Scram calibration on September 30, 1975, contained an entry for the channel #1

trip setting of 123%, which is outside the 114-116% acceptance range required by the calibration procedure. This was reviewed and approved by the Instrument Foreman. No record was found of subsequent action being taken to correct this condition.

These cases represent noncompliance with section 6.2.A.7 of the Technical Specifications, in that plant operating procedures were not adhered to. These procedures require that out of specification settings be readjusted to comply with the procedure acceptance values.

- c. During the review of selected surveillance test results, the inspector noted four instances in which the required surveillance was not completed. In each case, data sheets indicated that the calibration or functional test could not be completed because of the reactor mode. Each surveillance was reviewed, approved, and filed as completed. No record was found of subsequent action being taken to complete the calibration prior to returning the system to an operable status. These items were:

- (1) Reactor Coolant High Pressure Scram calibration performed on March 22, 1975.
- (2) Neutron Flux High Scram Functional test performed on September 30, 1975.
- (3) Reactor Vessel Low Water Level Scram calibration performed on September 18, 1975.
- (4) Reactor Vessel Low Water Level Scram Functional test performed on March 24, 1975.

These uncompleted surveillance items represent noncompliance with Paragraph 4.1.A and tables 4.1.1 and 4.1.2 of the Technical Specifications, in that required tests were not performed prior to returning the system to an operable status in each of these cases.

#### 10. Calibration (Dresden 1)

The inspector reviewed calibration records to ascertain whether the calibration of components and equipment associated with safety related systems and or functions is in conformance with the requirements of the Technical Specifications and approved guides and standards.

The following items were considered during this review: frequency of calibration; service status of the system with regard to the applicable Limiting Condition of Operation; procedure content with regard to review and approval, trip setting acceptance values, detailed stepwise instructions and technical content.

a. The inspector reviewed procedures, calibrations, and functional test results related to the following functions:

- (1) Reactor Coolant High Pressure Scram.
- (2) Neutron Flux High Scram.
- (3) Condenser Low Vacuum Scram.
- (4) Reactor Vessel Low water Level Scram.
- (5) Cleanup System Conductivity.

The inspector noted that the data sheets for the Reactor Vessel Low Water Level Scram calibrations conducted on February 7, 1975, May 26, 1975, August 13, 1975, and September 18, 1975, indicated that data had not been recorded at cardinal points over the range of the instrument as required by the calibration procedure. These data were reviewed and approved by the Instrument Foreman. Contrary to Section 6.2.A.7 of the Technical Specifications, plant operating procedures were not adhered to in this case. This is an item of noncompliance.

Comments regarding the content of these procedures are addressed in Paragraph 9.a, (Surveillance) of this section.

- b. The inspector reviewed the qualifications of two individuals having responsibility for performing calibrations of equipment and confirmed that their qualifications are in conformance with ANSI 18.1 standards.
- c. The inspector reviewed the licensee's control of measuring/testing devices used as primary standards in the calibration of plant equipment to verify the following: calibration frequencies of standards are in accordance with internal procedures and specifications; accuracy of standards is traceable to the National Bureau of Standards or other independent testing organization; and storage and control of the selected devices is proper.

Records were reviewed for the following instruments, with no discrepancies noted:

- (1) Digi-Gage
- (2) Fluke Digital Voltmeter #501
- (3) Pyrotest Instrument #69080464

11. Maintenance (Dresden 1)

The inspector reviewed procedures and records related to the following maintenance activities to ascertain whether major maintenance activities scheduled during the refueling outage would be conducted in accordance with approved procedures.

- a. Removal/installation of 5 primary steam safety valves.
- b. Modification M12-1-74-70 to install necessary equipment to be able to supply emergency condenser makeup during a flood.
- c. Unloader Heat Exchanger 6 inch return line repair.

The required procedures for these activities were approved and consistent with the ANSI 18.7 standard. The procedure for the Unloader Heat Exchanger Return Line repair was in draft form and had not yet been approved.

12. Refueling Preparations (Dresden 1)

The inspector reviewed licensee records and procedures to ascertain whether pre-refueling activities specified in the Technical Specifications had been completed and whether approved procedures would be available for special in-core or ex-core fuel handling activities.

No discrepancies were noted with regard to pre-refueling surveillance requirements.

Approved procedures were available for fuel transfer, core verification and fuel sipping operations. The licensee stated that procedures would be written and approved before fuel loading for bow checking and flow checking elements.