

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

CENTRAL FILES

AUG 19 1976

Commonwealth Edison Company

Docket No. 50-237

ATTN: Mr. Byron Lee, Jr.

Vice President

P. O. Box 767

Chicago, Illinois 60690

Gentlemen:

This refers to Mr. G. A. Abrell's letter dated July 26, 1976, which was in response to IE Inspection Report No. 050-237/76-13, forwarded to you by our letter dated July 1, 1976.

Your letter included comments which we assume to be clarifications of the position expressed by your management representatives at the management interview conducted at the conclusion of the inspection. Based on Mr. Stephenson's letter, we wish to communicate the following comments.

The reactivity anomaly curve shown to our inspector during the inspection was represented by your nuclear engineer as being the reactivity anomaly curve for the previous operating cycle, not the preliminary reactivity anomaly curve for the current cycle. The understanding reached during the management interview, as stated in your letter, was that the final data required for performance of the reactivity anomaly comparison would be available at the site before it was needed at the end of the first full power month of operation.

Code of Federal Regulations Title 10, part 71.12(b)(1), clearly established the responsibility of the transferring party to comply with the requirements in the Certificate of Compliance for the fuel shipping cask, including a determination that the cooling system is functional.



Commonwealth Edison
Company

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When certain periodic testing or maintenance requirements are performed by a separate party, evidence of satisfactory completion will provide users of the casks and independent reviewers verification that the work was completed.

Your letter also identified actions to correct the noted deficiency in documentation of the shutdown margin demonstration. We will examine these actions during a future inspection.

Should you have any questions concerning these matters, please contact us.

Sincerely yours,

James G. Keppler
Regional Director

cc: Mr. B. Stephenson
Station Superintendent

bcc w/ltr dtd 7/26/76:

Central Files

Reproduction Unit NRC 20b

PDR

Local PDR

NSIC

TIC

Anthony Roisman, Esq.,

Attorney



Commonwealth Edison
One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

July 26, 1976

Mr. James G. Keppler, Director
Directorate of Inspection and
Enforcement - Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Subject: Dresden Station Units 1, 2, and 3
Response to IE Inspection Report
No. 50-237/76-13
NRC Docket No. 50-237

Reference (a): G. Fiorelli Letter to Byron Lee
dated July 1, 1976

Dear Mr. Keppler:

This letter is in response to the item noted under enforcement items in the summary of findings in Reference (a). This item appeared to be in noncompliance with NRC requirements.

In addition, there are a number of comments on the management interview conducted during the inspection.

Please address any additional questions to this office.

Very truly yours,

G. A. Abrell
Nuclear Licensing Administrator
Boiling Water Reactors

Att.

JUL 27 1976

Deficiency Noncompliance item regarding shutdown margin vendor supplies records.

Discussion

The referenced report cited one deficiency; inadequate records of the vendor (General Electric) specified control rods to be withdrawn and the worths which were used in the D-2 Shutdown Margin Demonstration Procedure during start-up testing. Normally the vendor supplies a Cycle Management Report or Preliminary Management Report which includes all necessary Shutdown Margin data. Often, for various reasons, this report has not been received when startup testing commences. In this case, the vendor had performed Shutdown Margin analyses for at least two different control rod configurations and the Dresden Nuclear Engineers had obtained the necessary data by telephone for both rod configurations. The telephone conversations occurred May 12 and 14, (1976) and were documented by the Dresden engineer. It was understood that the Cycle Management Report would provide written documentation of the data obtained by telephone.

The Shutdown Margin Test was completed May 24, using one of the control rod configurations. Upon receipt of the Cycle Management Report (delivered on May 24, 1976), it was observed that the alternate control rod configuration was written into the report and not the configuration used.

Since there was much discussion about which control rod case would be used for the test, there was evidently a misunderstanding by the vendor over which case to include in the report. Upon discovery of the discrepancy in the core management report, the station notified the vendor of the need for written documentation of the shutdown margin data used.

Corrective Action

The station has received written configuration of the necessary data from the vendor (June 22, 1976 letter from H. A. Zimmerman to Mr. W. M. Kiefer, "Dresden 2 Cycle 5 -- Core Management Data"). The Technical Specification (6.5.A.7) referenced in the NRC Inspection Report states that records and/or logs relative to physics tests and other tests pertaining to nuclear safety

shall be kept in a manner convenient for review and retained for at least five years. The Start Up Test Report (issued by the Technical Staff, nuclear group), which includes Shutdown Margin Results, and the letter confirming the Shutdown Margin data used in the testing completely satisfies the referenced Technical Specification.

Action to Prevent Recurrence

In order to ensure that future Shutdown Margin Demonstrations are performed using written vendor or core management information, the Shutdown Margin Demonstration Procedure DTS 8134, will be revised to require written control rod worth information as a prerequisite to performing the test.

Date of Full Compliance

Full compliance was achieved on June 22, 1976 when the letter referenced on Corrective Action was received. The procedure change will be completed prior to October 1, 1976. The earliest date expected for the next station Shutdown Margin Demonstration is sometime after November 1, 1976 (Dresden 3 Startup).

MANAGEMENT INTERVIEW COMMENTS

Item A.2 Reactivity Anomaly Calculations

Comment:

The inspection report states that the vendor supplied graph of control inventory versus exposure which was necessary to perform reactivity anomaly surveillance was not available on site and that this information will be required for the equivalent full power month surveillance requirement.

The "Preliminary Reactivity Anomaly Curve" was available in the Dresden Unit 2, Cycle 5, Cycle Management Report, CME 14.05.01, received at Dresden, May 24, 1976. This curve was shown to the inspector. The inspection report statements apparently stem from the fact that this curve was labeled "Preliminary". A final curve for reactivity anomaly surveillance is developed based on plant startup data. Essentially, full power and equilibrium reactor conditions are necessary to determine the correlations used to perform the reactivity anomaly surveillance. Equilibrium conditions occur after approximately one-half full power month when samarium equilibrium is achieved. Actual equilibrium conditions and control rod positions are used to calculate baseline reactivity anomaly correlations, and if necessary, to renormalize the Preliminary Reactivity Anomaly Curve (control inventory versus exposure curve). In most cases, adjustments to the preliminary curve are minor; however, it is possible a completely revised curve may result.

In all cases, the actual baseline reactivity anomaly curve used in reactivity anomaly surveillance is developed using actual reactor operating data for the full cycle of interest. The actual curve cannot be provided prior to reactor startup.

Item B.1 Spent Fuel Cask Cooling System Check

Comment:

The use of the terms "insufficient" (item 1) and "not sufficient" (item 2) in describing the cask handling procedure SOP-119 is somewhat misleading.

Paragraph 13 of Certificate of Compliance 9001 reads:

"Prior to each shipment, the licensee shall determine that the cooling system is totally functional, e.g., both blowers operating at design speed, filters clean,

MANAGEMENT INTERVIEW COMMENTS

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belts not frayed, gas and oil tanks filled, dampers free, motor oil and water temperatures normal, air plenum and ducts in good maintenance, etc."

The seven items specified following "e.g." are intended as demonstrative examples and not as explicit stipulations, or the notation "i.e." would have been used. Further, the cooling system engines are air-cooled diesels, using neither gas tanks nor water, and their instrumentation does not include motor oil temperature.

Procedure SOP-119 provides for proper blower speed determination in Step F.28.e.5:

"Engage the clutch and increase speed until the rpm reaches that marked on the tachometer."

The rep marked on the tachometer corresponds to the design blower speed.

Inspections to check for clean filters, non-frayed belts, free dampers, and filled fuel tanks are part of the preventive maintenance checkout performed prior to each cask delivery by the specific licensee, General Electric, at their Morris Operation. This maintenance, along with all other maintenance activities connected with the IF-300 cask, railcar, and auxiliary equipment, is thus not required to be performed by the cask user, except possibly in cases of equipment failure at the user's site.

To assure an equipment failure on the cask at Dresden Station would be detected, Procedure SOP-119 stipulates that the operation of the cooling system be observed for any irregularities (Step F.28.e.6). In our judgement, these procedural steps were sufficient; however, at the request of the inspector, it was agreed to revise the procedure to mimic paragraph 13 of the Certificate of Compliance 9001.

Action Taken:

A revision of Procedure SOP-119 was issued with wording as closely as practicable mimicking paragraph 13 of Certificate of Compliance 9001.

Item B.2 Spent Fuel Cask Relief Valve Testing

It is required by paragraph 16 of Certificate of Compliance 9001 that the cask cavity relief valves typical globe valves and

MANAGEMENT INTERVIEW COMMENTS

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typical expansion tank relief valves be tested periodically to demonstrate proper performance. These tests and other tests of hydrostatic and thermal performance are the direct responsibility of the specific licensee, General Electric Company. Prior to commencing the present cask shipments, G.E. stated that all such tests had been conducted and were currently in accordance with the cask license. No formal documentation was requested.

Action Taken:

We have obtained written certification from General Electric Company that the IF-301 and IF-302 shipping casks in use at Dresden meet the requirements of Certificate of Compliance 9001 for the present shipping period. This documentation provides assurance that the required testing has been performed. A second revision of Procedure SOP-119 will be revised to specify this certification of conformance as a prerequisite to use of a cask.

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GLEN ELLYN, ILLINOIS 60137

CENTRAL FILES

JUL 1 1976

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

Docket No. 50-237

Gentlemen:

This refers to the inspection conducted by J. S. Creswell of this office on June 10, 14-16, 1976, of activities at Dresden Nuclear Power Station, Unit 2, authorized by NRC Operating License No. DPR-19 and to the discussion of our findings with Mr. Roberts at the conclusion of the inspection.

The enclosed copy of our inspection report identifies areas examined during the inspection. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations, and interviews with personnel.

During this inspection, certain of your activities appeared to be in noncompliance with NRC requirements, as described under Enforcement Items 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 for each item of noncompliance: (1) corrective action taken and the results achieved; (2) corrective action to be taken to avoid further noncompliance; and (3) the date when full compliance will be achieved.

Based on discussions with your representatives at the site, we understand that Procedure SOP-119 will be revised to include items detailed in Paragraph 3.a of the Report Details.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a



JUL 1 1976

copy of this notice, the enclosed inspection report, and your response to this notice will be placed in the NRC's Public Document Room, except as follows. If this report contains information that you or your contractors believe to be proprietary, you must apply in writing to this office, within twenty days of your receipt of this notice, to withhold such information from public disclosure. The application must include a full statement of the reasons for which the information is considered proprietary, and should be prepared so that proprietary information identified in the application is contained in an enclosure to the application.

We will gladly discuss any questions you have concerning this inspection.

Sincerely yours,

Gaston Fiorelli, Chief
Reactor Operations and
Nuclear Support Branch

Enclosure:
IE Inspection Rpt
No. 050-237/76-13

cc w/encl:
B. Stephenson, Station
Superintendent

bcc w/encl:
Central Files
PDR
Local PDR
NSIC
TIC
Anthony Roisman, Esq., Attorney
IE Mail and File Unit

UNITED STATES NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report of Operations Inspection

IE Inspection Report No. 050-237/76-13

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

Dresden Nuclear Power Station
Unit 2
Morris, Illinois

License No. DPR-19
Category: C

Type of Licensee: BWR (GE) 810 MWe

Type of Inspection: Routine, Announced

Dates of Inspection: June 10, 14-16, 1976

Principal Inspector: *for W. S. Little*
J. S. Creswell

6/29/76
(Date)

Accompanying Inspectors: None

Other Accompanying Personnel: W. S. Little

Reviewed By: *W. S. Little*
W. S. Little, Chief
Nuclear Support Section

6/28/76
(Date)

SUMMARY OF FINDINGS

Inspection Summary

An inspection was conducted on June 10, 14, 15, and 16, (76-13): regarding startup testing after refueling and spent fuel packaging and shipping.

Enforcement Items

A. Infractions

None.

B. Deficiencies

Contrary to Technical Specification 6.5.A.7 the licensee did not have records of the vendor specified control rods to be withdrawn and their worths which were used in Startup Test 3 "Shutdown Margin Determination." (Paragraph 2.a, Report Details)

Licensee Action on Previously Identified Enforcement Items

In regard to Deficiency B.1. of Report No. 050-237/75-23 involving the recording of temperature and leak test data for the spent fuel cask the inspection revealed this item had been satisfactorily resolved.

Other Significant Items

A. Systems and Components

None.

B. Facility Items (Plans and Procedures)

Procedure, SOP-119, "Handling and Loading of the IF-300 Spent Fuel Shipping Cask" was insufficient in its requirements pertaining to cooling system inspection prior to inspection. (Paragraph 3.b, Report Details)

It was also noted that the licensee was not securing relief valve test verification from the cask vendor. (Paragraph 3.b, Report Details)

C. Managerial Items

None.

D. Noncompliance Identified and Corrected by Licensee

None.

E. Deviations

None.

F. Status of Previously Reported Unresolved Items

Not reviewed.

Management Interview

The inspectors conducted an interview with Messrs. Roberts (Assistant Superintendent), Abel (Administrative Assistant), and other members of the station staff at the conclusion of the inspection June 16. The following matters were discussed:

A. The inspector summarized the findings of the inspection related to startup testing after refueling.

1. The lack of formal documentation of the control rod worths used for Startup Test 3, Shutdown Margin Determination, was inconsistent with the requirements of Technical Specification 6.5.A.7. (Paragraph 2, Report Details)
2. The inspector noted that information required to perform the reactivity anomaly calculation was not available on site. (Paragraph 2, Report Details)

B. Findings related to spent fuel packaging and shipping were as follows:

1. The inspector noted that the spent fuel packaging and shipping procedure, SOP-119, was not sufficient in its requirement for cask cooling system inspection. (Paragraph 3.a, Report Details)
2. The inspector stated that the licensee should obtain relief valve test data from the cask vendor prior to cask shipping. (Paragraph 3.b, Report Details)

The licensee stated that both matters would be resolved.

REPORT DETAILS

1. Persons Contacted

A. Roberts, Assistant Superintendent
J. Abel, Administrative Assistant
J. Dolter, Lead Nuclear Engineer
T. Rausch, Nuclear Engineer
G. Romba, Engineer
J. Toscas, Nuclear Engineer
T. Watts, Technical Staff Supervisor

2. Review of Startup Test After Refueling (Dresden 2)

The inspection included a review of Unit 2 startup testing performed during the month of May 1976, with one item of noncompliance noted.

- a. During the review of startup test procedure number 3, Shutdown Margin Demonstration, it was found that the data regarding control rods to be withdrawn and their worths was obtained by a telephone conversation between the nuclear engineer and a vendor representative. It was determined that this information was not documented as required by Technical Specification 6.5.A.7.
- b. Review of Reactivity Anomaly Calculation Procedure, 38-DTS-8631, revealed that vendor supplied graph of control inventory versus exposure which was necessary for the calculation was not available on site. This information will be required for the equivalent full power month surveillance requirement.
- c. Review of Rod Worth Minimizer Procedure, DOS 400-2 revealed no discrepancies.
- d. Review of Control Rod Drive Friction Testing Procedure 38-300-S-X1 revealed no discrepancies.
- e. Review of Control Rod Drive Scram Testing and Scram Valve Timing Test, DTS 300-2 revealed a procedure change was initiated to delete the Scram Valve Timing Test which is not required by the Technical Specification. Review of the data showed no discrepancies.

3. Review of Spent Fuel Packaging and Shipping (Dresden 3)

Three shipments of spent fuel from the Unit 3 fuel storage pool to the Midwest Fuel Recovery Plant were made by the licensee using the Model IF-300 Shipping Cask in the month of June. The inspector reviewed approved procedures and records associated with the shipments. Fuel packaging activities were observed on June 10 and 14. Following are the results of the inspection.

- a. It was found during the review of the licensee's cask handling procedure SOP-119 that inspection of the cooling system prior to shipment should be expanded to include the specific items mentioned in Certificate of Compliance Number 9001, Revision 4, Item 13.
- b. The licensee could not furnish relief valve test data mentioned in Item 15 of the above mentioned Certificate of Compliance. The licensee has committed to obtaining this information from the cask vendor prior to cask shipments.