



Commonwealth Edison

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

June 21, 1983

Mr. James G. Keppler, Regional Administrator
- Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

Subject: Byron Station Units 1 and 2
Response to IE Inspection Report
Nos. 50-454/83-17 and 50-455/83-14
NRC Docket Nos. 50-454 and 50-455

Reference (a): J. F. Streeter letter to Cordell
Reed dated May 24, 1983.

Dear Mr. Keppler:

Reference (a) provided the results of an inspection conducted by Mr. M. A. Ring of your office during the periods of March 30, 31, April 1, 5-8, 18-22, 26-29, and May 4, 1983, of activities at our Byron Station. During that inspection, certain activities appeared to be in noncompliance with NRC requirements. The Attachment to this letter provides the Commonwealth Edison Company response to the Notice of Violation as appended to Reference (a), and reflects our consideration of the specific examples documented in paragraphs 2 and 3 of the inspection report as requested.

Additionally, Reference (a) indicated Region III's concerns regarding the numerous examples of our failure to follow our administrative procedures during the development of the hot functional test procedure, and the apparent inadequacies of our administrative procedures which allowed the hot functional test procedure to be approved with numerous examples of the test procedure not adequately addressing FSAR testing commitments. These matters were considered in the development of our response as requested, and we believe that the corrective actions stated should prevent such recurrence.

To the best of my knowledge and belief, the statements contained in the Attachment are true and correct. In some respects these statements are not based on my personal knowledge but upon information furnished by other Commonwealth Edison employees. Such information has been reviewed in accordance with Company practice and I believe it to be reliable.

JUN 22 1983

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Q PDR

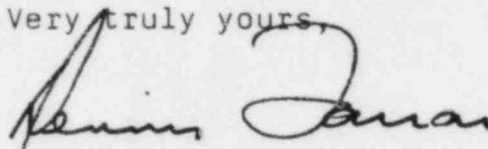
J. G. Keppler

- 2 -

June 21, 1983

Please address any questions that you or your staff may have concerning this matter to this office.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Dennis L. Farrar", written in a cursive style.

Dennis L. Farrar
Director of Nuclear Licensing

EDS/lm

Attachment

cc: Region III Inspector - Byron

6797N

ATTACHMENT

Response to Notice of Violation

VIOLATION 1

10 CFR 50, Appendix B, Criterion V states, "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished."

Criterion XI, states, in part, "A test program shall be established to assure that all testing required to demonstrate that structures, systems and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents..."

Section 2.4.3 of the Byron Startup Manual assigns Project Engineering the responsibility to review and approve all pre-operational and startup tests, provide test acceptance criteria, and ensure test objectives are properly stated and met by acceptance criteria.

Contrary to the above, the applicant approved and issued for performance Test Procedure 2.63.10, "Integrated Hot Functional," without performing an adequate review of the procedure as evidenced by incomplete or missing acceptance criteria, data not designated as acceptance criteria, misleading typographical errors, incomplete testing provisions, and incomplete objectives.

RESPONSE TO ITEM 1

CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED:

An extensive review was conducted of Revision 2 to the Integrated Hot Functional (IHF) Test procedure and the applicable FSAR commitments. As a result, the IHF Test procedure was revised and Revision 3 was issued. Corrective actions taken to address and resolve each specific example identified in Reference (a) are as follows:

- 3a. A Test Change Request (TCR) was written to Revision 2 of the IHF Test and this change was subsequently incorporated into Revision 3 to include the Component Cooling data taken as acceptance criteria. See Step 4.12 of Revision 3.

- 3b. A TCR was written to Revision 2 of the IHF Test and subsequently incorporated into Revision 3. Included as acceptance criteria (Step 4.10 & 4.11) was the capability of the Steam Dumps and Residual Heat Removal System to cool down the plant in accordance with Section 5.4.7.1 of the FSAR. Procedural steps have been reviewed and approved by the Project Engineering Department.
- 3c. A TCR was written to Revision 2 of the IHF Test and subsequently incorporated into Revision 3 to correct typographical errors. In addition, Revision 3 was reviewed to eliminate typographical errors.
- 3d. A TCR was written to Revision 2 of the IHF Test and subsequently incorporated into Revision 3 to include Essential Service Water data taken as acceptance criteria. See Revision 3 of the IHF Test, Step 4.13. Additional components serviced by Essential Service Water were added to Revision 3 of the IHF Test.
- 3e. A TCR was written to Revision 2 of the IHF Test and subsequently included into Revision 3 of the IHF Test to include the Auxiliary Feedwater Pumps and regulating valves as part of the Remote Shutdown Panel test section and acceptance criteria, thus meeting the test objective as stated.
- 3f. A TCR was written to Revision 2 of the IHF Test and subsequently included into Revision 3 of the IHF Test, to include acceptance criteria for the Chemical and Volume Control Purification System (Step 4.14.)
- 3g. A TCR was written to Revision 2 of the IHF Test and subsequently incorporated into Revision 3 to include acceptance criteria (Steps 4.16 and 4.17) for the Steam Generator Safety Valves and the Steam Generator Pressure Operated Relief Valves lift setpoints. The pressure gauges used to take data are listed in Section 7 of the IHF Test, Revision 3 special equipment. Other equipment used will be listed in the sequence of events, if necessary.
- 3h. Table 14.2-24 of the Byron FSAR was amended (Amendment No. 42, May 1983) to verify the degassing capability of the radioactive waste gas system during startup testing.
- 3i. A TCR was written to Revision 2 of the IHF test and subsequently incorporated into Revision 3, Steps 4.7 and 4.18 to add Steam Generator B, C and D level, Pressurizer level, Pressurizer pressure high deviation and centrifugal pump driven seal injection flow as acceptance criteria.

CORRECTIVE ACTION TAKEN TO PREVENT RECURRENCE:

- a. A matrix will be developed tracking particular preoperational and startup test program requirements against specific test program commitments. The matrix will be compiled through a re-review of the Byron FSAR, SER, Regulatory Guides, NRC Technical Bulletins and Notices and Industry Standards. The commitments will be referenced to the appropriate systems and preoperational test number. This matrix will be used by the Test Review Board (TRB) during initial and pre-test reviews to ensure that all requirements are established, and during post test review to verify that all acceptance criteria were met.
- b. In addition to the procedure review and approval by the Test Review Board members, an individual other than the cognizant System Test Engineer will check for and correct misleading typographical errors after the tests are typed.
- c. Test deficiencies will be written as necessary to document 1) testing commitments identified in the FSAR which are not included in a specific preoperational or startup test and 2) changes necessary to a reference document such as the FSAR to accurately reflect the test program.
- d. A test checklist will be prepared to provide a detailed listing of areas to be covered during review of initial, pre and post preoperational test reviews.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

August 15, 1983

VIOLATION 2

10 CFR 50, Appendix B, Criterion XIII states, in part, that "Measures shall be established to control the handling, storage, shipping, cleaning and preservation of material and equipment...to prevent damage or deterioration."

The Commonwealth Edison Company Quality Assurance Program contains in Quality Requirement QR 2.0 a commitment to the regulatory position of Regulatory Guide 1.39, Revision 2 which endorses the requirements of ANSI N45.2.3-1973. Section 3.2.1 of ANSI N45.2.3 states, "The work areas shall be kept sufficiently clean and orderly that construction activity can proceed in an efficient manner that will produce and maintain quality in conformance with specified requirements. Where large accumulations of materials occur on a nonroutine basis, such as the stripping of concrete forms, the material shall be promptly removed or stored neatly. Garbage, trash, scrap, litter, and other excess materials shall be collected, removed from the job site, or disposed of in accordance with specified requirements or planned practices. Such excess material shall not be allowed to accumulate and create conditions that will adversely affect quality."

Contrary to the above, the applicant's program for maintaining cleanliness and housekeeping was not being adequately implemented as evidenced by the following examples:

- a. On April 6 and 7, 1983, the inspector noted many loose pieces of lagging and considerable garbage and trash strewn about the MSIV rooms, and a coating of lagging dust covered almost everything in the B and C MSIV rooms. The A and D MSIV rooms had staging built such that instrument valves could not be operated and loose boards were leaning against valve handwheels and generally strewn about.
- b. On April 20 and 28, 1983, the inspector noted considerable food stuffs (soda cans, banana peels, orange peels, candy bar wrappers and small food tins), loose boards, and cigarette packs in the area of the Unit 2 Diesel and Motor Driven Auxiliary Feed Pumps.
- c. On April 28, 1983, the inspector noted that the SG "C" cubicle walkway had numerous pieces of rags, pop cans, cigarette butts, flexitallic gasket and general construction material.

RESPONSE TO ITEM 2

CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED

Byron Site Instruction #23, Rev. 3 dated June 3, 1982 details the Housekeeping Plan to be implemented by the Project Construction Department. This instruction identifies specific areas of the building, their appropriate cleanliness zone as defined in ANSI N45.2.3-1973, and acceptance criteria for surveillances of the Housekeeping Plan. Form SQP 18-2.27 is used to document a monthly surveillance of housekeeping activities performed per Byron Site Instruction #23.

The following details the action taken with respect to the specific examples identified in Reference (a):

Example 2A: MAIN STEAM ISOLATION VALVE ROOMS

The attached form SQP 18.2-27 (Attachment 1) documents that a surveillance of the MSIV Rooms was performed on April 4, 1983 identifying that the area needed cleaning. The same form indicates that the area was cleaned to appropriate acceptance criteria on April 8, 1983.

The operability of valves is part of the Pre-Preop Test walkdown performed by the System Test Engineer. Items identified on this walkdown are resolved on a case by case basis.

Example 2B: UNIT 2 DIESEL AND MOTOR DRIVEN AUXILIARY FEED PUMPS

Attachment 2 contains the April and May Form SQP 18-2.27 surveillances. The April surveillances indicate that the Auxiliary Building, Elevation 383' and the Auxiliary Feed Pump Diesel Day Tank Room were clean.

Example 2C: STEAM GENERATOR "C" CUBICLE

Steam Generator "C" Cubicle is part of the normal Reactor Building housekeeping surveillance. The April and May surveillances indicate that the Reactor Building housekeeping was acceptable. A special cleanup was made of Steam Generator "C" Cubicle on May 10, 1983 as part of the preparations for Hot Functional Testing.

CORRECTIVE ACTION TAKEN TO PREVENT RECURRENCE:

As stated in our response to the above specific examples, the established Housekeeping Plan defined in the Byron Site Instruction #23 has identified areas deficient in housekeeping and documented the correction of these deficiencies. In our judgment, the implementation of this Housekeeping Plan is adequate to keep site work areas sufficiently clean and orderly as required by ANSI N45.2.3-1973.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Complete

Work of
SWPT Completed on
DATE needed 4-2-83.

4/4/83

Form SEP 10-2-71
Byron Site Instruction #23
Rev. 1 7/17/81
Rev. 2 4/23/82
Rev. 3 6/3/82

Appendix "A"

Reactor Building U/I and U/2

Insp.
By

Date
Insp.

Door Elevator

Zone

Comments

Sheet 5 of 10

0'-6"	4-4-83	4-4-83	178	1. Insp. 1. Instrumentation P/U U/2 said planned over (no access)
0'-3"	4-8-83	4-8-83	178	1. Insp. 1. U/1 very dirty - has much excess lumber - found around liner on U/2. 1. U/2 needs a Gen Sweeping
0'-3"	4-8-83	4-8-83	178	1. Insp. 1. U/1 NEEDS A Good Sweep down on Beams - Values - pipes + Scaffold
0'-3"	4-8-83	4-8-83	178	1. Insp. 1. U/1 Needs to be picked up + Remove Misc. Lumber + Scrap Steel 1. U/2 Needs a Minor pickup + Some plywood walls swept
0'-3"	4-8-83	4-8-83	178	1. Insp. 1. U/1 Has much Lumber + Misc. Steel + Gen. Debris - 1. U/2 Needs Sweep + Remove Small Amount of Debris Lumber
0'-0"	4-5-83	4-5-83	178	1. Insp. 1. Sweep + Remove Misc. Lumber 1. U/1 Fuel P/U and Immediate Area (OK) AT this time - but then check 2. Tendon Tunnel 363'-9" (OK) 3. Steam Tunnel 371'-0" U/1 Filthy - Insulation - Lumber Debris Lumber - Filz - U/2 OK 4. Safety Valve Room U/1 U/2 OK 5. Inside of vessels U/1 U/2 OK

ATTACHMENT #1

Appendix "A"

Auxiliary Building U/1 and U/2

Sheet 3 of 10

Insp.
By

Date
Insp.

Zone

Floor Elevation

Comments

30'-0"

5 4-4-83

gth. 1. very clean (OK)

43'-0"

5 4-4-83

gth. 1. very clean (OK)

46'-0"

5 4-4-83

gth. very clean (OK)

47'-0"

4-4-83

gth. 1. very clean (OK)

54'-0"

5 4-6-83

gth. only AREA 47 NEEDS cleaning - Rest of Floor is Very Clean
gth. Diesel Oil Storage Tank 3m. 37.5'-0" Needs Sweeping

60'-0"

4-4-83

gth. 1. Looks Good? (OK)

4 4-4-83

gth. 1. Not Fed Diesel oil Day Tank No. 383' M+12

Appendix "A"

Auxiliary Building U/1 and U/2

Sheet 3 of 10

Door Elevation

Zone

Date Insp.

Insp. By

Comments

143'-0"

5-4-83

JTL

330 North - Moved Area - Skipped Area + Misc. Debris on Floor
 330 South - Moved Garbage + Skipped + Misc. Debris on Floor

143'-0"

5-4-83

JTL

1. Sweep + Remove Excess Lumber + Stuff.

146'-0"

5-4-83

JTL

1. Much Broken Sheet. Lumber - paper - paper + Geel, Debris Entire Area

157'-0"

5-6-83

JTL

1. Sweep out

154'-0"

5-6-83

JTL

1. Entire Floor Needs A Complete Cleaning
 1. Bath Room - Sweep Floor
 1. Diesel oil Storage Tank Area. U/2 Sweep out

158'-0"

5-3-83

JTL

1. Very Dirty All Areas - (Below, Sweep Now)
 1. Aux Feed Diesel oil Day Tank Area. 388' N+17 (OK)