



Commonwealth Edison

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March 5, 1985

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

Subject: Byron Generating Station Units 1 and 2
I&E Inspection Report Nos. 50-454/84-79
and 50-455/84-53

Reference (a): January 30, 1985 letter from J. F. Streeter
to Cordell Reed.

Dear Mr. Keppler:

Reference (a) provided the results of inspections by Messrs. Hinds, Connaughton, Brochman, Lerch, Dunlop and Vandenburg at Byron from November 4 to December 31, 1984. During these inspections certain activities were found to be not in compliance with NRC requirements. Attachment A to this letter contains Commonwealth Edison's response to the Notice of Violation which was appended to reference (a).

It should be noted for the record that the Notice of Violation contains a significant typographical error. At the bottom of the first page of the Notice there is a comment which explains that the pumps were "capable of performing as designed, and that there had been degradation in pump performance." Actually, there was no degradation in pump performance. This was acknowledged on page 8 of the Inspection Report.

Please direct questions regarding this matter to this office.

Very truly yours,

D. L. Farrar
Director of Nuclear Licensing

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cc: Byron Resident Inspector

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Attachment

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ATTACHMENT A

RESPONSE TO NOTICE OF VIOLATION

VIOLATION

Technical Specification 4.0.3 states: "Failure to perform a Surveillance Requirement within the specified time interval shall constitute a failure to meet the OPERABILITY requirements for a Limiting Condition for Operation. Surveillance Requirements do not have to be performed on inoperable equipment." Technical Specification 4.0.5.b states, in part, that "Performance of ... inservice ... testing activities shall be in addition to other specified Surveillance Requirements." Technical Specification 4.0.5.a requires inservice testing of ASME Code Class 1, 2, and 3 pumps be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR Part 50, Section 50.55a(g).

Technical Specifications 3.9.8.2 (Mode 6), 3.4.1.4.1 and 3.4.1.4.2 (Mode 5) require at least one RHR loop to be OPERABLE.

Technical Specification 3.1.2.3 (Modes 5 and 6) requires one centrifugal charging pump to be OPERABLE.

Technical Specification 3.8.1.2 (Modes 5 and 6) required a minimum of one diesel generator's associated fuel oil transfer pump to be OPERABLE.

Technical Specification 3.7.6 (Modes 5 and 6 prior to initial criticality on Cycle 1) requires one control room ventilation system to be OPERABLE.

Contrary to the above, pump OPERABILITY was not properly established by inservice testing as follows:

- a. RHR pumps were not inservice tested within the required surveillance intervals prior to entry into Modes 6 and 5.
- b. Suction pressure instrumentation used in inservice tests of the RHR pumps, centrifugal charging pumps, diesel oil transfer pumps, and control room chilled water pumps conducted prior to entry into Modes 6 and 5 exceeded maximum allowable range requirements.

RESPONSE

The untimely inservice testing of the RHR pumps resulted from an understandable misinterpretation of overlapping and interlocking Technical Specification requirements for operability of these pumps. Separate Technical Specifications specify operability requirements for RHR pumps for the purpose of decay heat removal during refueling (3.9.8.1 and 3.9.8.2), at cold shutdown (3.4.1.4.1 and 3.4.1.4.2), and at hot shutdown (3.4.1.3). Operability as an ECCS subsystem is also specified for hot shutdown (3.5.3) and hot standby, startup and power operation (3.5.2). Technical Specification 4.0.5 simply requires inservice testing of all ASME Code Class 1, 2, and 3 pumps according to Section XI of the ASME Code.

When functioning to remove decay heat, peak RHR pump performance is not crucial. The pumps develop a low head in this application and the relevant Technical Specification operability requirements focus on flow path. No reference is made to the inservice testing requirements of Technical Specification 4.0.5. High head RHR pump performance is very important, however, when the pumps operate as part of ECCS. The Technical Specification operability requirements (4.5.2) are cast in terms of total developed head and flow. Specific reference is made to the Section XI pump performance testing requirements specified in 4.0.5.

After considerable review of these various requirements, plant personnel determined that the initial Section XI performance testing of the RHR pumps was necessary to determine that they were operable as ECCS pumps prior to entering Mode 4, hot shutdown. This determination was based primarily upon the fact that only the Technical Specifications on ECCS operability contain a reference to the inservice testing requirement of paragraph 4.0.5.

Region III inspectors later informed plant personnel that the intent of the various Technical Specification requirements is to require Section XI inservice testing of the RHR pumps to support operability in any mode, regardless of their use for decay heat removal or as an ECCS subsystem. Plant personnel now understand the intent of these requirements.

Item a

Corrective Actions Taken and Results Achieved

Surveillance LBVS 5.2.f.3-1 was successfully completed on December 12, 1984 and the RH pumps were declared OPERABLE. This surveillance satisfies Technical Specification 4.0.5 requirements.

Action Taken to Prevent Further Violations

The inservice testing of all other Category 1, 2 and 3 pumps has been reviewed to see if the test completion date was compatible with the current understanding of the Technical Specification requirements. No other discrepancies were found.

Technical Specification surveillances have also been revised to include inservice testing of pumps pursuant to Technical Specification 4.0.5 whenever pump OPERABILITY is required.

Date of Full Compliance:

February 25, 1985.

Item b

Corrective Actions Taken and Results Achieved

All identified inservice testing instrumentation which did not meet ASME range requirements was identified through a re-review of all instruments used for inservice testing. Where necessary, inservice tests have been redone using instrumentation of the proper range.

Action Taken to Prevent Further Violation

The surveillances which required the use of improper gauges have been revised to require the use of removable test instrumentation of the proper range.

All changes to inservice tests are now reviewed by the Inservice Inspection group. This review will identify any changes to procedures which would cause instrumentation of an incorrect range to be used, prior to the use of the procedures.

Date of Full Compliance:

January 31, 1985