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

June 24, 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. 50-454/83-18 and 50-455/83-15
NRC Docket Nos. 50-454 and 50-455

Reference (a): C. E. Norelius letter to Cordell Reed dated May 26, 1983.

Dear Mr. Keppler:

Reference (a) provided the results of an inspection conducted by Messrs. W. Forney and K. Connaughton of your office during the period of March 1 through April 30, 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).

Reference (a) indicated Region III's particular concern regarding the repetitive nature of the examples of noncompliance identified during this inspection, and requested that Commonwealth Edison specify what measures will be established beyond previous commitments to provide the necessary additional assurances that preoperational tests will be conducted in accordance with test procedures and applicable test program requirements. These matters were considered in the development of our response to the Notice of Violation, and we believe that our corrective actions as outlined herein should prevent such recurrence.

Additionally, Reference (a) indicated Region III's concern that identified nonconformances with FSAR commitments which are dispositioned "use as is" may not be identified in the FSAR as exceptions to those commitments, and requested that we provide a description of actions taken, or planned to be taken, to assure that nonconformances so dispositioned are identified in the FSAR as exceptions to applicable commitments.

In response to this area of concern, our basic approach for establishing the need for FSAR amendments resulting from nonconformance disposition revolves around the process of achieving the disposition. As

the nonconformance and proposed resolution(s) are evaluated, the cognizant Project Engineer Department (PED) engineer evaluates the status of the nonconformance and proposed resolution(s), if any, relative to FSAR commitments. If the resolution constitutes an exception to existing FSAR commitments, the PED engineer initiates, or causes the initiation of, an FSAR amendment. In our judgment, this process which is required by existing design control procedures is adequate to insure that the requisite changes to the FSAR are made.

To the best of my knowledge and belief, the statements contained herein and 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.

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

Very truly yours,

Dennis L. Farrar
Director of Nuclear Licensing

EDS/lm

Attachment

cc: Region III Inspector - Byron

6800N

ATTACHMENT

Response to Notice of Violation

VIOLATION

10 CFR 50, Appendix B, Criterion XI, "Test Control" 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."

The Byron FSAR, Chapter 17.0, Quality Assurance, states in part: "Therefore the CE Topical Report CE-1-A, Revision 7 and all subsequent revisions unless otherwise noted in this chapter, is the basis for the QA Program at Byron/Braidwood Station."

Commonwealth Edison Company Topical Report CE-1-A, Quality Assurance Program for Nuclear Generating Stations, Revision 20 dated February 17, 1982, Section 11, states in part: Preoperational tests which are performed on critical safety Category 1 equipment are controlled by approved written procedures....."

The Byron Startup Manual, Revision 13, dated February 3, 1983, Section 4.7.2, "Pre-Test Briefing" states in part: "Prior to starting the test the System Test Engineer will brief participants to:

2.1.3 Review the pertinent special precautions.

2.1.4 Inform each person what he will be expected to do during the test."

Contrary to the above,

(a) Initial Condition 7.22.2, "Vibration Equipment for Sections 9.4, 9.5, 9.6, 9.7, 9.17, 9.22, 9.25, 9.26 and 9.27" had not been satisfied prior to performance of Sections 9.4, 9.5 and 9.6.

(b) During the performance of Sections 9.4 and 9.5 of Preoperational Test 2.63.10 "Integrated Hot Functional Test", precaution 8.19 which required that the test be exited upon any indication of a loose part on the loose parts monitoring system was not observed in that all channels of the loose parts monitoring system were in a high alarm state.

(c) Reactor Coolant System pressure and temperature were not maintained within their expected ranges and testing continued after the out-of-tolerance values were read from the prescribed instrumentation and recorded.

(d) Pre-test briefing of operators prior to performance of Section 9.5 and 9.6 did not include a review of precaution 8.19 or the Reactor Coolant System temperature and pressure control bands as evidenced by interviews with test support personnel and examples (b) and (c) above.

ITEM (a) RESPONSE

CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED:

The Identification number and calibration date for the vibration equipment used for Sections 9.4, 9.5 and 9.6 was entered in step 7.22.2 of the Integrated Hot Functionals (IHF) procedure and signed off on April 28, 1983.

CORRECTIVE ACTION TAKEN TO PREVENT FURTHER NON-COMPLIANCE:

The Integrated Hot Functionals (IHF) System Test Engineers have been designated the responsible individuals for verifying and signing all prerequisites, initial conditions and procedure steps.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

Full compliance was achieved on June 20, 1983.

ITEM (b) RESPONSE

CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED:

Fuels Group members were called to the U1 Auxiliary Electric Room by Operating on April 27, 1983 to evaluate the Loose Parts Monitoring System (LPMS) status. All the Loose Parts Detectors (LPDs) were found in the "LOW ALARM" state which indicates a lack of background noise. At least some of the LPDs were in the "HIGH ALARM" state. The audio alarm switch was in the "off" position to silence an otherwise continuous alarm due to the LPD "LOW ALARM" states in the Auxiliary Electric Room. The LPMS System Test Engineer (STE), was able to clear all the HIGH ALARM lights by using the reset switch for each LPD. This indicated that the HIGH ALARM lights were due to Reactor Coolant Pump (RCP) cycling required by the IHF procedure. Because the RCPs were no longer running, the HIGH ALARMs could reset and the LOW ALARMs would stay on. This agreed with plant conditions and no further action was necessary relative to Precaution 8.19.

CORRECTIVE ACTION TAKEN TO PREVENT FURTHER NON-COMPLIANCE:

Several actions were taken to prevent recurrence:

1. Byron Annunciator Response (BAR) 1-13-E9 has been written to assist the operators in determining what actions to take in response to a LPMS alarm.

2. The LPMS alarm modules now initiate an alarm in the Main Control Room when an alarm condition is reached.

3. The Integrated Hot Functionals Coordinators and selected personnel in Operating including some Shift Engineers have been instructed on how to perform an initial diagnosis of LPMS problems. They have also been instructed in the basic understanding of the LPMS.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

Full compliance was achieved on June 20, 1983.

ITEMS (c) and (d) RESPONSE

CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED:

Test Deficiency AG for the Integrated Hot Functionals (IHF) preoperational test was written to document that recorded values for temperature and pressure were outside the bands specified in the test procedure. The Test Deficiency will be reviewed by the Post Test Review Board and is the record of improper actions taken by the STE. Test Change Request #56 changed the allowable temperature range from the span of 140°F to 160°F, to greater than 70°F which is still consistent with NSSS vendor recommendations. The STE and the Unit One operator both began using the 403 Pressure Loop for maintenance of Reactor Coolant System Pressure within the specified limits. The STE then reperformed the steps of sections 9.5 & 11.5 in which pressure and temperature were initially outside the specified bands.

CORRECTIVE ACTION TAKEN TO PREVENT FURTHER NON-COMPLIANCE:

Several actions were taken to prevent recurrence of test briefing problems as identified in Reference (a) and in previous Inspection Reports as follows:

1. A letter from the Assistant Superintendent of Operating to the Nuclear Station Operators (NSOs) was issued on May 19, 1983. The purpose of the letter was to delineate the responsibilities of the NSOs with regards to shift turnovers and test briefings received from STEs. Some of the minimum requirements the NSOs are to expect and demand of test briefings include reviewing all pertinent precautions and operational bands specified by the IHF test procedure.

2. Per a letter from the Assistant Superintendent of Operating, approved by the Station Superintendent, to the Department Heads and Shift Engineers dated April 27, 1983, the Assistant Superintendent has delegated his normal daily activities to the Operating Engineer. The Assistant Superintendent of Operating has devoted himself to full time coordination of the Integrated Hot Functional activities to provide the highest level of responsibility and authority as well as Technical and Management expertise. Three experienced individuals have been designated as IHF Coordinators and report directly to the Assistant Superintendent of Operations. Their main responsibility is to coordinate interdepartmental actions relating to Hot Functionals.

3. An Onsite Review was held to review recent problems encountered in the test program. The three main topics discussed were system control, test conduct, and design changes to the plant.

   Some of the conclusions of this review were to:

   a. Re-emphasize that the STE should be aware of all changes or maintenance to his system for proper system control. An example of the increased attention paid to system control is the fact that the Tech Staff Representative at the Plan of the Day Meeting reviews all Nuclear Work Requests and notes on the Work Request any special conditions or precautions to be observed.

   b. Reduce the number of non-IHF activities during the Hot Functionals test which might detract from its performance.

   c. Re-emphasize that the NSOs are responsible for conservative operation of the plant.

   d. Improve the quality of shift turnovers. For example, Shift Supervisors coming off shift now periodically observe shift turnovers by Operating personnel. They provide verbal feedback to the operators on their turnover and record the results on Station observer forms for review by station management.

e. Use Status boards in the Main Control Room to enhance awareness of plant status by all station departments.

4. The Station Superintendent has met with various work groups in the station to discuss the test program and each group's responsibilities relating to a high quality program.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

Full compliance was achieved on June 20, 1983.