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July 25, 1983

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
Response to Inspection Report Nos.
50-454/83-20 and 50-4556/83-17
NRC Docket Nos. 50-454 and 50-455

Reference (a): June 22, 1983 letter from R. L. Spessard to Cordell Reed.

(b): May 13, 1983 letter from J. G. Keppler to Cordell Reed.

Dear Mr. Keppler:

This letter is in response to the inspection conducted by Mr. I. T. Yin on May 3-4, 9-10, and 12, 1983 of activities at Byron Station. During that inspection certain activities were found to be in noncompliance with NRC requirements. Commonwealth Edison's response to the Notice of Violation appended to reference (a) is provided in the attachment to this letter.

The findings of this inspection resulted in NRC/CECo management meetings and in the issuance of the Confirmatory Action Letter (CAL) identified as reference (b). That letter documents the actions taken to immediately address the inspector's concerns, in spite of ambiguity at a technical level regarding the extent of the noncompliance. Those actions are considered generally adequate to correct Violations 1 and 2. Where appropriate, additional corrective measures being taken are documented in the attachment to this letter.

Having reviewed the inspection report and other supporting facts, we now agree that all four violations do involve noncompliance with NRC requirements. We are therefore not requesting NRC management review of either the violations or the assigned severity levels. We note for the record, however, that we do not agree entirely with the NRC characterization of Violation 1 and its safety significance.

Prior to this inspection the installation of pipe whip restraints was being accomplished satisfactorily from a safety standpoint, although not entirely in accordance with the CECo QA manual. The installation and design review process was proceeding according to written procedures and, if permitted to continue, would certainly have resulted in pipe whip

restraints that met all NRC safety requirements. The CECo QA manual, however, specifically requires that potentially significant dimensional deviations be referred to the architect-engineer for evaluation and approval via the Field Change Request (FCR) process. Since the installation of pipe whip restraints was proceeding without approved FCR's due to the issuance of an ECN which was not in accordance with the CECo QA manual, this activity was therefore not in compliance with Criterion II of 10 CFR 50, Appendix B, and was a procedural violation which was of minimal safety consequence.

At Braidwood Station these pipe whip restraint installation activities have been reviewed and found to be acceptable with regard to the issues raised in the Byron inspection. Appropriate inspections are being performed and all deviations from design dimensions and tolerances are being evaluated and approved via the FCR process.

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 upon my personal knowledge but upon information furnished by other Commonwealth Edison, consultant, and contractor employees. Such information has been reviewed in accordance with Company practice and I believe it to be reliable.

If you have any further questions on this matter, please direct them to this office.

Very truly yours,

D. L. Farrar
Director of Nuclear Licensing

TRT/lm

Attachment

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ATTACHMENT

RESPONSE TO NOTICE OF VIOLATION

Violation 1:

10 CFR 50, Appendix B, Criterion II, states, in part, "The quality assurance program shall provide control over activities affecting the quality of the identified structures systems and components, to an extent consistent with their importance to safety."

10 CFR 50, Appendix B, Criterion III, states, in part, "Design changes, including field changes, shall be subject to design control measures commensurate with those applied to the original design...."

10 CFR 50, Appendix B, Criterion V, states, in part, "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings... Instructions, procedures or drawings shall include appropriate quantitative or qualitative acceptance criteria...."

10 CFR 50, Appendix B, Criterion X, states, in part, "A program for inspection of activities affecting quality shall be established and executed....to verify conformance with the documented instructions, procedures and drawings...."

10 CFR 50, Appendix B, Criterion XVI, states, in part, "Measures shall be established to assure that conditions adverse to quality....are promptly identified and corrected."

The CECo Quality Assurance Manual and the Nuclear Generating Stations Quality Assurance Procedures Manuals commit to the above 10 CFR, Appendix B requirements in Sections 2, 3, 5, 10 and 16.

Contrary to the above Engineering Changes Notices (ECNs) No. 1696, dated July 2, 1980, and No. 2327, dated December 2, 1981, allowed field changes to be made to pipe whip restraints to facilitate installation of pipe whip restraints (WR) without the following controls:

(a) Critical WR design parameters such as angularity, orientation, and location of the restraints with respect to the pipe were changed in the field, and their impact on the design was not evaluated prior to installation.

(b) No inspections to verify critical dimensions were conducted during WR installation. (Following installation, only inspections against as-built drawings rather than design drawings were conducted.)

(c) Construction tolerances for WR installation were voided by the ECN deleting qualitative acceptance criteria.

(d) Deviations from critical design tolerances were not promptly identified and corrected.

Corrective Action Taken And Results Achieved:

Corrective actions takens are as as documented in the Confirmatory Action Letter dated May 13, 1983 (reference (b)). For installed restraints, as-built drawings are being reviewed by the Architect/ Engineer for verification of structural adequacy. Region III will be notified of any significant deficiencies.

Corrective Action Taken to Avoid Further Noncompliance

As indicated in the Confirmatory Action Letter, new procedures have been prepared and implemented. These procedures include required dimensional installation tolerances and appropriate Q.C. hold points. Craft personnel were trained in the new procedures prior to their use.

Date When Full Compliance Will Be Achieved

The new procedures were fully implemented as of July 5, 1983.

Violation 2:

10 CFR 50, Appendix B, Criterion XVIII, states, in part, "A comprehensive system of planned and periodic audits shall be carried out to verify compliance with all aspects of the quality assurance program and to determine the effectiveness of the program."

Commonwealth Edison Company Topical Report CE-1-A, "Quality Assurance Program for Nuclear Generating Stations", Revision 21, dated June 6, 1982, states in Section 18, that "Audits will be performed by Commonwealth Edison Company and/or its contractors, subcontractors and vendors to verify the implementation and effectiveness of quality program under their cognizance."

Contrary to the above, there were no CECo QA audits of WR installation from 1979 (activities began) to October 1982. In addition, there have been no CECo QA or Hunter Corporation QA audits of installation and QC inspection of WR location, configuration, and orientation. While QA audits of pipe supports and restraint installations were greatly improved because of Region III inspection findings in 1980, they had not been extended to include all WR program activities.

Corrective Actions and Results Achieved:

The CECo Quality Assurance Department performed planned periodic audits of Hunter Corporation between 1979 and October 1982 to assure that the requirements of 10 CFR 50, Appendix B and the Hunter Corporation Quality Assurance Program were being met. During this period, CECo performed approximately 20 audits of the Hunter Corporation Quality Assurance program and associated work activities. These audits covered QA program elements which are part of pipe whip restraint installation activities but are not unique to pipe whip restraints. They are common to all pipe hanger installation activities. Among the related program elements and activities reviewed were component support process control and installation, design and design change control, QC inspections, training, welding and weld rod control, material control, document control, and piping and equipment installation. These program elements have generally been audited several times during the time period in question. In some cases, specific activities were addressed and in others, programmatic controls were reviewed to assure overall adequacy of quality related activities.

Because of concerns regarding pipe whip restraints at LaSalle, the February 1983 CECo General Office audit included a review of pipe whip restraint inspections at Byron. Although the audit identified deficiencies in the area of pipe whip restraint activities, they were different from the concerns identified by NRC during the subject inspection.

In light of programmatic concerns identified during the NRC inspection, CECo Site Quality Assurance expanded a planned audit of Hunter Corporation to include an evaluation of accuracy of reported as-built conditions. This audit identified minor discrepancies in the reporting of as-built data.

As required by Item 3 of the Confirmatory Action Letter, CECo Site Quality Assurance performed a comprehensive audit on June 29, 1983 of the revised installation and inspection program for pipe whip restraints (audit 6-83-65). An audit plan for the early stages of restart of pipe whip restraint installation was also developed. The installation of pipe whip restraints will be audited monthly until Site QA is assured that pipe whip restraint installation and inspection is progressing acceptably in accordance with the revised program.

Corrective Action Taken to Avoid Further Noncompliance:

Pipe whip restraint installation activities have been included in the CECo Site QA audit program for the remainder of 1983 and will be included in future annual audit schedules.

Date When Full Compliance will be Achieved:

We are currently in compliance with the exception of the completion of the first audit of pipe whip restraint field installation. This audit will be performed when installation progress is sufficient to assess program compliance but should be completed by August 1, 1983.

Violation 3:

10 CFR 50, Appendix B, Criterion XV, states, "Measures shall be established to control material, parts, or components which do not conform to requirements in order to prevent their inadvertent use or installation. These measures shall include, as appropriate, procedures for identification, documentation, segregation, disposition, and notification to affected organizations. Nonconforming items shall be reviewed and accepted, rejected, repaired or reworked in accordance with documented procedures."

Commonwealth Edison Company Topical Report CE-1-A, "Quality Assurance Program for Nuclear Generating Stations", Revision 21, dated June 6, 1982, states in Section 15, that "Items involving construction, maintenance and modifications which are found nonconforming to the engineering requirements or specifications, drawing and instructions for modifications or workmanship standards or which are lacking required documentation upon receipt will be controlled to prevent their inadvertent use or installation. Nonconforming items are identified, documented, and segregated for disposition."

Contrary to the above, the fluid leakage observed on all 8 large steam generator snubbers was not being adequately controlled in that Discrepancy Report (DRs) had not been written to document the problem and request resolution and evaluation. In addition, Hold Tags had not been placed on the snubbers to identify the status of the problem. Furthermore, in addressing the inspector's concern, the Hunter personnel who subsequently wrote the DRs did not understand that issuance of Process Sheets in lieu of DRs was in noncompliance with QA requirements.

Corrective Action Taken And Results Achieved:

The conditions of fluid leakage cited above were not present at time of receipt, so nonconformance reports or discrepancy reports were not required. As stated in the inspection report "DETAILS" in section 2.b.(1), the conditions of fluid leakage established subsequent to installation had been documented by Commonwealth Edison "Deficiency" Numbers 83.12-034 and 28.10-056. The process sheets identified in the inspection report "DETAILS" are the programmatic means established to perform and inspect construction work activities, the activities in this case were adjustment of shaft packing glands as recommended by manufacturers installation and maintenance manual. As a result of the inspector's concerns, the installation contractor was directed to initiate discrepancy reports. That is the method established in their program for documenting nonconforming conditions and control. Additionally, the installation contractor has initiated Nonconformance Report 488 to document that a discrepancy report was not initiated prior to the issuance of the process sheets. The resolution for the discrepancy reports initiated on May 5, 1983, which indicates that the tightening of the packing gland did not eliminate the leakage, is to replace the packing, refill the reservoirs and verify acceptability of

leakage. This work will be performed after receipt of replacement packing. Any additional conditions encountered during replacement of the steam generator snubber packing will be documented in accordance with requirements of contractor's site implementation procedures.

Corrective Action Taken To Prevent Recurrence:

The appropriate Hunter personnel will be reinstructed in the proper identification and documentation of discrepant/nonconforming conditions.

Date When Full Compliance Will Be Achieved:

Hunter personnel will receive reinstruction in site implementation procedures addressing identification and documentation of discrepant/ nonconforming conditions by August 26, 1983. Replacement of the steam generator snubber packing should be complete by October 31, 1983.

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Violation 4:

10 CFR 50, Appendix B, Criterion XIII, states, in part, that "Measures shall be established to control the....preservation of material and equipment in accordance with work and inspection instructions to prevent damage or deterioration."

Commonwealth Edison Company Topical Report CE-1-A, "Quality Assurance Program For Nuclear Generating Stations", Revision 20, dated February 17, 1982, states in Section 13, that "Written instructions for handling, preservation, storage and shipping will be used to specify special protective conditions necessary to prevent damage or deterioration of materials and equipment."

Contrary to the above, during review of the present site component maintenance program, it was revealed that surveillances for components in storage are discontinued after they are installed in place. In addition, the licensee had not established a surveillance program for the large bore steam generator snubbers and as a result snubber components were continuously being abused by the craft while performing other work activities in the vicinity. Failure to have a site surveillance program for these installed items also precluded early identification of the snubber problem, the availability of data to evaluate any change in fluid leakage, and timely resolution of the apparent deficiencies.

Corrective Action Taken And Results Achieved:

The specific problem with the steam generator snubbers will be resolved with the replacement of packing as described in Item 3 above.

Corrective Action Taken To Prevent Recurrence:

Hunter will perform a monthly surveillance of installed equipment, including the steam generator snubbers. This surveillance of installed equipment will continue until turnover for test. Station personnel then become responsible for such surveillance activities. The appropriate Hunter site implementation procedures will be revised to reflect these requirements.

Date When Full Compliance Will Be Achieved:

The appropriate procedures will be revised by August 26, 1983. Surveillances of installed equipment not turned over station personnel for test will be fully implemented by October 31, 1983.