



**Commonwealth Edison**

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February 27, 1984

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

Subject: Byron Generating Station Unit 1  
I&E Inspection Report 50-454/83-54

Reference (a): December 12, 1983, letter from W. S.  
Little to Cordell Reed.

Dear Mr. Keppler:

Reference (a) provided the results of an inspection of activities at Byron Station conducted by Mr. R. Mendez on November 15-18, 1983. During this inspection 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 appended to reference (a).

This response was due to be submitted on January 13, 1984. Submittal was delayed because of apparent discrepancies in the description of specific installation details contained in the Inspection Report. These discrepancies have now been resolved to the best of our ability. The delay was discussed with Mr. Cordell Williams of your office.

Please address further questions regarding this matter to this office.

Very truly yours,

D. L. Farrar  
Director of Nuclear Licensing

TRT/lm

Attachment A

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## ATTACHMENT A

### Response to Notice of Violation

#### Violation

10 CFR 50 Appendix B, Criterion V, states in part, "Measures 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...acceptance criteria for determining that important activities have been satisfactorily accomplished.

Commonwealth Edison Topical Report CE-1-A, "Quality Assurance Program for Nuclear Generating Stations, Revision 15, states in part, "The quality assurance actions carried out for design, construction...will be described in documented instructions, procedures, drawings, specifications.... These documents will also reference applicable acceptance criteria which must be satisfied to assure that the quality related activities has been properly carried out.

Sargent and Lundy Drawing 6E-0-3390, Revision AK, Note 26, states in part, "A minimum of one inch space separation must be maintained between conduits and trays of the following safety-related segregation Codes 1E, 2E.... A minimum of one inch space separation must also be maintained between conduits and trays of each of the above named safety-related segregation and non-safety related Division 1B, 2B...all cases of less than one inch must be reported to Sargent and Lundy."

Contrary to the above, identification and control of apparent separation violations between Class 1E and non-Class 1E conduits was not being verified or documented. Consequently, the inspector identified the following as-built configurations wherein the one inch minimum requirement for conduit separation was not maintained.

- (a) Non-safety related conduit CIA 516A (sic) makes contact with safety-related conduits CIA 5102 (sic) and CIA 51E4 (sic).
- (b) Non-Class 1E conduit CIA 5118 (sic) touches two Class 1E conduits.
- (c) Non-Class 1E conduit CIA 5148 (sic) comes in contact with a Class 1E conduit.
- (d) Non-safety related conduit CIA 5163 (sic) touches Class 1E cables with conduit.

Corrective Action Taken and Results Achieved

A site representative accompanied the Region III inspector during the inspection of these conduits. The following discussion documents actions taken to correct the identified examples of noncompliances.

- (a) The nonconforming installation of conduit C1A51A6 was corrected by loosening the sealtight fitting and rotating the sealtight in order to attain the required separation from conduits C1A5102 and C1A51E4.
- (b) Non-Class 1E conduit C1A5118 does not come in contact with any Class 1E conduits but it does touch a Class 1E cable tray. Hatfield Electric Company NCR #781 dated November 18, 1983 identified this installation as being in violation of the minimum separation. The specific installation was analyzed and justified. Electrical Installation Drawing #6E-1-3351 dated December 20, 1983 incorporated the NCR.
- (c) Neither the Inspection Report nor our notes provide enough information to identify which portion of non-safety related conduit C1A5148 was originally observed to be in violation of the minimum separation requirements. On January 20, 1984, the entire length of conduit C1A5148 was examined for compliance to Note 26 on S&L drawing 6E-0-3990, Revision AK. Non-Class 1E conduit C1A5148 was not found to be in contact nor within one inch of any safety-related conduit.
- (d) Our examination of non-safety related conduit C1A5163 showed that the specified conduit does not touch any Class 1E conduit nor does it come within one inch of any Class 1E conduit. Conduit C1A5163 does come in contact with Class 1E cables of division (C2E) which are running in free air, but this installation is not in violation to Note 26 on Drawing 0-3390 since the C2E cables are not in a raceway. The separation requirements for cables in free air to cables in a raceway are stipulated in Hatfield's Procedure #10:

"Cables not in a raceway shall maintain 1" separation from cables in a raceway. It is acceptable for the cable in free air to touch the raceway side, bottom, or top as long as it is separated from the cables in the raceway by the solid steel raceway barrier."

Since (a) non-safety related conduit ClA5163 does not come within 1" of any Class 1E conduit and (b) the Class 1E cables in air are installed in accordance with Hatfield Procedure #10, the installation of non-safety related conduit ClA5163 is not in violation of any minimum separation requirements.

Although the four non-safety related conduits reported by the NRC Inspector to be in violation of the one inch separation requirement were not all violations, there are other safety-related and non-safety related conduits in the auxiliary building and in the containment that either touch each other or are separated by less than one inch. There is in progress a program to address all potential instances of safety-related and non-safety related conduits with less than one inch separation. The detailed procedures for this program are still being developed and will consist essentially of (a) an onsite physical walkdown of a statistical sample of all safety-related conduits, (b) an engineering analysis of all identified instances where the conduit separation is less than one inch, and (c) a modification of the conduit arrangement in any instance where the less than one inch separation cannot be justified by analysis. This program did not result from the Inspection Report. The analysis will (where possible) show that the separation of less than one inch does not degrade the safety-related circuit.

#### Corrective Action Taken to Avoid Further Noncompliance

Contractor installation procedures for safety-related conduit will be revised to specifically address the separation criteria of Note 26 on S&L drawing 6E-0-3390. Conduit installed according to the new procedures will adhere to the one inch separation criterion with respect to all other conduits and cable trays. Whenever a conduit cannot be installed without violating this minimum separation requirement the deviation will be documented and reviewed by appropriate engineering personnel to determine the acceptability of the installation. QC inspections of safety-related conduit and trays will verify that either the separation requirements have been met or the deviations have been appropriately documented for engineering review.

#### Date When Full Compliance Will Be Achieved

Contractor procedures will be revised and implemented by March 16, 1984.