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April 8, 1983

Mr. W. S. Little, Chief
Project Engineering Branch
US Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

ULNRC-616

Dear Mr. Little:

INSPECTION REPORT NO. 50-483/82-21

This reply is in response to your letter of March 8, 1983 which transmitted the report of the inspection conducted at Callaway Plant, Unit 1 during the period of November 29 to 30 and December 1 to 3, 1982. Our response to the items of noncompliance are presented below in the order listed within the body of inspection report number 50-483/82-21.

None of the material in the inspection report or in this response is considered proprietary by Union Electric Company.

(50-483/82-21-01) SEVERITY LEVEL V VIOLATION

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

SNUPPS Standard Quality Assurance Manual, Section 17.2.13 states in part, "Safety-related items including safety-related parts of structures, systems and components shall be handled, stored,... and preserved in accordance with procedures, instructions...to assure that the quality of item is preserved..."

Contrary to the above, the inspector observed the following instances where adequate care to prevent damage to Class 1E equipment was not adhered to in accordance with the licensee's Quality Control Procedure QCP 305.

a. As of December 3, 1982, scaffold was found placed on top of four safety-related load centers NG01, NG02, NG03 and NG04.

b. Flexible conduit connected to Raceway 1U1222 was broken, leaving the cable exposed. In addition, the cable jacket was damaged and the minimum bend radius was apparently exceeded.

Corrective Action Taken And The Results Achieved:

a. Upon identification of this problem, the subject scaffolding was immediately removed from the load centers. Visual inspection of the load centers after scaffolding was removed revealed no damage or detrimental effect due to the use of the load centers as a support.

b. Deficiency Report 2SD-9215-E was initiated to document this problem. The DR was subsequently dispositioned, reworked, and closed in accordance with the disposition.

Corrective Action To Be Taken To Avoid Further Noncompliance:

a. All carpenter crews responsible for scaffold installation have been instructed not to use load centers or any other permanent plant equipment for structural support. All Disciplines have been cautioned in the Daily Manager's meeting against using permanent plant equipment for personnel access or scaffold support. Crafts have been directly informed of this requirement in Tool Box Safety meetings.

b. Management has notified craft to take extra care in working near flexible conduit. In addition, the Architect/Engineer has revised specification E-OR8900 to allow the use of type UI "interlocked flexible metal tubing". This change has allowed for a stronger flexible conduit to be installed in areas of congestion.

The Date When Full Compliance Will Be Achieved:

a. Full compliance was achieved when the scaffold was removed from the load centers.

b. Full compliance was achieved on March 18, 1983 when 2SD-9215E was closed. The new flexible conduit is presently being used.

(50-483/82-21-07) SEVERITY LEVEL V VIOLATION

10 CFR, Criterion V, states in part, "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings...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."

Daniel International Procedure WP-303, Revision 13, "Installation of Wire and Cable," status in Section 3.10, "Caution must be observed to prevent exceeding maximum allowable pulling tensions for any particular type cable specified by Reference 2.14 (Bechtel Drawing No. E-01013(Q))."

Bechtel Drawing No. E-01013(Q), Revision 6, "Installation, Inspection, and Testing Details for Electrical Equipment and Cable," Paragraph 5.3.4, states in part, "Neither the pulling tension nor the side-wall pressure shall exceed the maximum value in Appendix B." Appendix B to Drawing E-01013(Q) lists the maximum sidewall pressure for Cable Code B32 triplexed cable as 450R pounds (R is the radius in feet).

Contrary to the above, the tension exerted in pulling Class 1E Cable No. 1ALB01AA apparently resulted in the maximum allowable sidewall pressure exceeding Bechtel's design specification. The subject cable was pulled through a three foot radius conduit (1B2F1E) bend with a tension of 2300 pounds, in apparent violation to Bechtel's design criteria of 1350 pounds.

Response

This is an interim response as Union Electric is continuing to review the details of the constructor's actions regarding this specific cable pull. The Lead A/E has also been in contact with the affected cable manufacturer concerning the maximum allowable sidewall pressure values for the triplex and single conductor cables listed in Appendix B to E-01013(Q). A more definitive response to this item will be transmitted to Region III no later than May 1, 1983.

If you have any questions regarding this response or if additional information is required, please let me know.

Very truly yours,

Donald F. Schnell

Donald F. Schnell

RMD/jds

cc: Mr. H. M. Wescott, NRC Region III
NRC Resident Inspector, Callaway Plant
Missouri Public Service Commission