



Commonwealth Edison

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DMB

April 17, 1985

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

Subject: Braidwood Station Units 1 and 2
Response to Inspection Report
Nos. 50-456/84-42 and 50-457/84-38
NRC Docket Nos. 50-456 and 50-457

References (a) R. F. Warnick letter to Cordell Reed
dated March 18, 1985

Dear Mr. Keppler:

This letter is in response to the inspection conducted by Messrs. R. D. Schulz, R. N. Gardner, and W. Kropp on December 28, 1984 through February 12, 1985, of activities at Braidwood Station. Reference (a) indicated that certain activities appeared to be in noncompliance with NRC requirements. The Commonwealth Edison Company response to the Notice of Violation is provided in the enclosure.

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

Very truly yours,

for D. L. Farrar
Director of Nuclear Licensing

Enclosure

cc: NRC Resident Inspector - Braidwood

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ENCLOSURE

COMMONWEALTH EDISON COMPANY
RESPONSE TO INSPECTION REPORT
50-456/84-42 AND 50-457/84-38
ITEM 50-456/84-42-11 AND 50-457/84-38-11

ITEM OF NONCOMPLIANCE

10 CFR 50, Appendix B, Criterion II, states in part: "Activities affecting quality shall be accomplished under suitably controlled conditions. Controlled conditions include the use of appropriate equipment; suitable environmental conditions for accomplishing the activity, such as adequate cleanness; and assurance that all prerequisites for the given activity have been satisfied. The program shall take into account the need for special controls, processes, test equipment, tools, and skills to attain the required quality, and the need for verification of quality by inspection and test."

Sargent and Lundy Piping Specification F/L-2739, Piping System Installation, Amendment 6, October 31, 1983, states in part, that piping shall be free of loose scale and rust and cleaning shall consist of acid pickling or blasting to a white metal finish with angular steel grit.

Contrary to the above, the cleaning process for the ASME, Section III, Subsection ND, Diesel Fuel Oil Piping, which contained rust and loose scale, was inadequately controlled in that:

- a. The licensee's construction engineer verbally instructed the piping contractor to have the 3" and 4" diesel fuel oil piping sandblasted by the painters and blown out with air. Verbal instruction is not in accordance with the licensee's quality assurance program.
- b. The cleaning process of sandblasting was not in accordance with piping specification F/L-2739. This alternate cleaning process was not approved by the architect engineer.
- c. Records do not exist documenting that the sandblasting was accomplished for the diesel fuel oil installed piping.
- d. Quality Control inspections were not performed to assure that the sandblasting was done properly resulting in no deleterious effects on the piping.
- e. During the installation of a Phillips Getschow 3" diesel fuel oil piping spool, identified on drawing 2A-DO-49-6, which required that the inside surfaces of the piping components be sandblasted prior to installation, the NRC inspector observed that the spool was rusted on the inside and had not been sandblasted by the site piping contractor.

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Commonwealth Edison agrees that proper procedural methods were not used in directing Phillips Getschow Co. to clean diesel fuel oil pipe during the erection sequence. Items a, b, c and d apply to Unit 1 and item e applies to Unit 2. Each of these items will be addressed separately.

RESPONSE - SUBITEMS a, b, c, and d

The sandblasting occurred during the erection of the Unit 1 Diesel Fuel Oil System. The 3-inch and 4-inch spool pieces were sandblasted before flushing as an aid in preparing the system for flush. It was the decision of Project Construction that the specification requirements regarding the pickling of piping did not apply and that the specification requirement addressed the requirements of the piping fabrication contractor and not the installation contractor.

The specification requirements cited by the inspector are found in Specification L-2739-Addendum-4 dated 7-22-82 Para. 305. This paragraph says in part, "after fabrication all piping shall be cleaned, painted, and protected in accordance with the applicable requirement of Article 4 of Form 270, in so far as they apply to shop work". The paragraph goes on to establish special cleaning requirements for several systems, among them, fuel oil piping. The referenced standard in paragraph 305 and 305.1 is Sargent and Lundy's Standard for class D piping (B31.1) Form 270-G Section 4, Cleaning, Protection and Painting.

Sargent and Lundy's Standard paragraph 4.1.2 says in part "after fabrication, the interior surfaces of principal piping systems, except lube oil systems shall be cleaned by acid pickling, or by blasting. Paragraph 305.1 (J) further states that fuel oil piping should be cleaned in accordance with the requirements of paragraph 4.1.3 of Form 270-G. Paragraph 4.1.3 says, in part after fabrication, acid pickle the inside surfaces with a suitable solution.

CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED - SUBITEMS a, b, c, and d

Commonwealth Edison has initiated NCR 720 to address these concerns. This NCR is currently being reviewed by Commonwealth Edison Quality Assurance and Project Field Engineering. A supplement to this response will be provided when NCR disposition is complete to delineate the specific action that will be taken.

CORRECTIVE ACTIONS TAKEN TO AVOID FURTHER NONCOMPLIANCE - SUBITEMS a, b, c, and d

Since the issue applies once to the Diesel Fuel Oil System, no additional corrective action to prevent further non-compliance appears to be necessary at this time.

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DATE OF FULL COMPLIANCE - SUBITEM a, b, c, and d

At this time, date of full compliance cannot be determined pending final evaluation of NCR 720.

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COMMONWEALTH EDISON COMPANY
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RESPONSE - SUBITEM e

Commonwealth Edison agrees that item e is an item of noncompliance. However, we believe the issue of nonconformance is first, that the note requiring sandblasting was improperly added to the drawing and second, that installation work was proceeding without the first issue being properly resolved.

The cognizant field engineer for the Unit 2 diesel oil piping was informed by the field engineer who had been responsible for the Unit 1 diesel oil piping installation that the Unit 1 piping had been sandblasted before installation.

The cognizant field engineer made a spot review of the drawings and did not notice the note requiring sandblasting because it only appears on some of the 3 and 4 inch drawings and none of the 1 1/2 inch drawings associated with the Unit 2 diesel oil piping installation.

Concurrently with this activity the resident inspector made his concerns known to Commonwealth Edison and Phillips Getschow.

Based on this concern, a thorough review of the drawings and specification requirements were made, with the following results:

- 1) Of the 25 Isometrics issued for work on the North Storage Tank (2DO0TA), 10 required sandblasting to be done.
- 2) The piping for the South Storage Tank (2DO0TB) was being installed to the original Southwest Fabrication drawings and sandblasting was not required.
- 3) The sandblasting requirement appeared to pertain only to the 3 and 4 inch piping associated with the system and not with the small bore piping on the discharge side of the oil transfer pumps.
- 4) The specification requires that diesel oil piping be cleaned by means of acid pickling.

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CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED - SUBITEM e

Project Construction directed the Contractor to recall the drawings from the field and to remove the note requiring sandblasting. This has been accomplished.

Project Construction has requested by means of FCR 17028 that the pre-installation cleaning requirements for diesel oil piping be clarified by the design engineer. This FCR is currently being reviewed by Project Field Engineering and Sargent and Lundy, and an alternate cleaning method will be determined. Any cleaning necessary for the case identified will be decided at that time.

Phillips, Getschow, the contractor has issued NCR-3706 to document the necessary corrective action taken.

CORRECTIVE ACTIONS TAKEN TO AVOID FURTHER NONCOMPLIANCE - SUBITEM e

Commonwealth Edison has directed the contractor to review his drawing control procedures to prevent specific instructions on an individual drawing being applied in a general manner.

DATE OF FULL COMPLIANCE - SUBITEM e

At this time a date of full compliance cannot be determined pending final approval of the field change request.