



Commonwealth Edison
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Address Reply to: Post Office Box 767
Chicago, Illinois 60690

September 9, 1983

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 IE Inspection Report Nos.
50-456/83-07 and 50-457/83-07
NRC Docket Nos. 50-456/457

Reference (a): R. C. Knop letter to Cordell Reed
dated August 8, 1983

Dear Mr. Keppler:

Reference (a) provided the results of an inspection conducted by Mr. L. G. McGregor of your office during the period of March 1 through June 15, 1983, of activities at our Braidwood 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).

Our delay in submittal of this thirty (30) day report was discussed with Region III on September 7, 1983.

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

Attachment
cc: RIII Inspector - Braidwood

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ATTACHMENT

Response to Notice of Violation

VIOLATION NO. 1

10 CFR 50, Appendix B, Criterion VI, Document Control states, in part, "Measures shall be established to control the issuance of documents, such as instructions, procedures, and drawings, including changes thereto, which prescribe all activities affecting quality".

ANSI N45.2-1977 states, in part: "Those participating in an activity shall be made aware of and use proper and current instructions, procedures, drawings, and engineering requirements for performing the activity. Participating organizations shall have procedures for control of the documents and changes thereto to preclude the possibility of use of outdated or inappropriate documents. Document control measures shall provide for identifying the proper documents to be used in performing the activity, coordination and control of interface documents and ascertaining that proper documents are being used."

ANSI N45.2.9-1979 Technical Requirements states in part, "Documents which are later to be designated as records shall be legible, accurate and completed as appropriate to the work accomplished."

Commonwealth Edison Quality Assurance Procedure No. 3-2, Section 4.6 states in part, "The Site Quality Assurance Superintendent or Station Quality Assurance Engineer/Inspector monitors site or station generated requests for changes in design, assures satisfactory disposition of FCR's, assures that the latest design documents are being used by the site or station organizations and contractors and assures that resultant design changes are incorporated into the project drawings and documents, as appropriate."

Contrary to the above requirements, the NRC inspector noted discrepancies between copies of the field drawings used for construction of the Chemical Volume Control and Boron Thermal Regeneration, Boric Acid Processing, Component Cooling Water System and copies of the same drawings located at the licensee's construction office. A review of forty (40) drawings disclosed inconsistencies between thirty-nine (39) of the same drawings.

RESPONSE TO VIOLATION NO. 1

DISCUSSION

We have reviewed the specific drawings identified in Reference (a). The following documents the results of this review.

M64 - Sheet 4

The current revision in the field is "AG" - ECN 2018 was incorporated on Rev. "U" and did not need to be transferred to subsequent revisions. Steps have been taken to minimize "overstamping".

M65 - Sheet 7

Drawing M65, Sheet 7, Revision J was issued to the field on March 21, 1983 and returned to the Phillips, Getschow Company office on May 8, 1983. Traceability of the drawing was maintained by the Phillips, Getschow Company document transmittal records and the drawing was possibly in transit during the time of the NRC inspection, since the date of the inspector's check is not known.

M65 - Sheet 8

M65, Sheet 8, had not been issued for use in the field.

M66 - Sheet 1

- * ECN 3245 was inadvertently omitted from the drawing and subsequently placed on the drawing on June 14, 1983. The current revision in the field is Revision Z.

M66 - Sheet 3

Phillips, Getschow Company document transmittal record indicates Drawing M66, Sheet 3, Revision W was assigned to the field office on March 31, 1983. Traceability of the drawing was maintained and the drawing was possibly in transit during the time of the NRC inspection since the date of the inspector's check is not known. Currently, Revision Y is in use in the field. No further action is required.

M537 - Sheet 1

- * Commonwealth Edison Company drawing M537 currently shows FCR 9046 stamped on the drawing. Records indicate the FCR was stamped on March 18, 1983 and possibly inadvertently omitted. Phillips, Getschow Company office drawing need not be stamped with FCR 8045. FCR 8045 voids FCR's 3402 and 5674 and does not affect drawing M537. Phillips, Getschow Company document transmittal record indicates drawing M537, Sheet 1, was assigned to the field office on March 21, 1983. Traceability of the drawing was maintained, the drawing was possibly in transit during the time of the NRC inspection, since the date of the inspector's check is not known.

M537 - Sheet 2

Commonwealth Edison Company office drawing Revision T was overstamped with FCR 6559. FCR 6559 applies to drawing M538-2. The overstamping does not affect the quality of installation, however steps have been taken to minimize the overstamping.

Phillips, Getschow Company document transmittal record indicates drawing M537, Sheet 2 was assigned to the field office on March 21, 1983. Traceability of the drawing was maintained and the drawing was possibly in transit during the time of the NRC inspection, since the date of the inspector's check is not known.

M537 - Sheet 4

Phillips, Getschow Company field drawing M537, Sheet 4, Revision S was overstamped with FCR 1491. FCR 1491 had been incorporated into Revision C. The overstamping does not affect the quality of installation, however steps have been taken to minimize the overstamping.

M537 - Sheet 5

Currently, Revision S is at all three (3) locations. Revision S was received on April 11, 1983. (Five (5) working days were required to transmit the drawing from Phillips, Getschow Company office to the field office and acknowledge receipt.)

M537 - Sheet 6

Phillips, Getschow Company field drawing M537, Sheet 6, Revision R, was overstamped with FCR 1491. FCR 1491 was incorporated into Revision C. The overstamping does not affect the quality of installation, however, steps have been taken to minimize the overstamping.

M537 - Sheet 7

Drawing M537, Sheet 7, was overstamped with voided FCR 1487. FCR 2581 was incorrectly stamped on the wrong drawing and should not have been stamped. For both FCR's the overstamping does not affect the quality of installation, however, steps have been taken to minimize the overstamping.

Commonwealth Edison Company and Phillips, Getschow Company records indicate Revision W was received on April 11, 1983. Phillips Getschow Company records indicate Revision V was returned from the field on April 19, 1983. (Six (6) working days were required to transmit the drawing to the field and acknowledge receipt.)

M537 - Sheet 9

- * Commonwealth Edison Company office drawing was updated to reflect FCR 9038. FCR 7201 is stamped on all drawings. FCR 5931 was crossed off the Commonwealth Edison Company and Phillips, Getschow Company field drawings because it had been superseded by FCR 7201. All other FCR's (6316, 2644 including 5931) are considered to be over stamped and do not affect the quality of installation, however, steps have been taken to minimize the over stamping.

M537 - Sheet 10

- * Revision U of the Phillips, Getschow Company office and field drawing appeared not to be stamped with FCR 1668. The current revision, V incorporated FCR 1668. No further action is required.

M537 - Sheet 12

Drawing M537, Sheet 12, Revision M is the current drawing in the Commonwealth Edison Company and Phillips, Getschow Company field offices. Therefore, we are unable to check the lack of stamping ECN 3852 on Revision L. No further action is required.

M537 - Sheet 13

Phillips, Getschow Company document transmittal record indicates drawing M537, Sheet 13, Revision V was assigned to the field office on March 21, 1983. Traceability of the drawing was maintained and the drawing was possibly in transit to the field during the time of the NRC inspection, since the date of the inspectors check is not known.

Revision V is no longer available to the Commonwealth Edison Company office. Therefore, we cannot verify the lack of ECN 3768 or FCR 9402. Currently, Revision AA is at all three (3) locations and reflect all applicable ECN's and FCR's. No further action is required.

M537 - Sheet 15

Revision U is the current revision in the Commonwealth Edison Company office. Therefore, we cannot verify the lack of stamping FCR 9403. FCR 4305 was incorporated into Revision S and is considered to be over stamped on the Commonwealth Edison Company drawing.

Phillips, Getschow Company document transmittal record indicates drawing M537, Sheet 15, Revision S was assigned to the field office on April 26, 1983 and returned on June 15, 1983. Therefore, the drawing may have been in transit to or from the field during the time of the NRC inspection.

M537 - Sheet 17

Commonwealth Edison Company office drawing M537, Sheet 17, Revision J was over stamped with FCR 3206. FCR 3206 was incorporated on Revision J. The over stamping does not affect the quality of installation however, steps have been taken to minimize the over stamping.

M537 - Sheet 20, 21, 22, 24, and 32

The above listed Commonwealth Edison Company drawings possibly contained cases of the over stamped FCR's. In some cases, we could not verify the over stamping because the drawings have subsequently been revised prior to receipt of the NRC report. The over stamping does not affect the quality of installation, however, steps have been taken to minimize the over stamping.

M538 - Sheet 1

Commonwealth Edison Company office drawing M538, Sheet 1, Revision M was over stamped with ECN's 1883, 1922, and FCR 1051. These design documents were incorporated into Revision L. The over stamping does not affect the quality of installation, however, steps have been taken to minimize the over stamping.

M538 - Sheet 3

Phillips, Getschow Company document transmittal record indicates drawing M538, Sheet 3, Revision AA was received by Phillips, Getschow Company on April 18, 1983 and assigned to the office and field on the same day. Therefore, the drawing may have been in transit to the field during the time of the NRC inspection.

Currently, Revision AB is in use in the field. Phillips, Getschow Company, field drawing was over stamped with FCR's 2040 and 2397. The over stamping does not affect the quality of installation, however, steps have been taken to minimize the over stamping.

M538 - Sheet 6

- * Commonwealth Edison Company office drawing Revision S was over stamped with FCR's 5062 and 9500. These design documents were incorporated on Revision S. The over stamping was removed and did not affect the quality of installation, however, steps have been taken to minimize the over stamping.

Phillips, Getschow Company field drawing Revision S has been updated to Revision T. Revision T incorporates FCR 9237. No further action is required at this time.

M538 - Sheet 7

Phillips, Getschow Company document transmittal record indicates drawing M538, Sheet 7, Revision P was assigned to the Phillips, Getschow Company field office on March 21, 1983. Traceability of the drawing was maintained and the drawing may have been intransit to the field during the time of the NRC inspection, since the date of the inspector's check is not known.

M538 - Sheet 8

Revision S is the current revision in the Commonwealth Edison Company office. Therefore, we cannot verify the lack of stamping FCR 9237 on Revision R. Revision S incorporates FCR 9237. No further action is required. Phillips, Getschow Company document transmittal record indicates M538, Sheet 8, Revision R was assigned to the field office on March 21, 1983. Traceability of the drawing was maintained and the drawing may have been in transit to the field during the time of the NRC inspection, since the date of the inspector's check is not known.

M538 - Sheet 9

Revision J is the current revision in the Commonwealth Edison Company office. Therefore, we cannot verify the lack of stamping FCR 9237. Revision J incorporates FCR 9237. No further action is required.

Drawing M538, Sheet 9 had not been issued for use in the field.

M538 - Sheet 10

Commonwealth Edison Company office drawing Revision F was over stamped with FCR 2503. FCR 2503 was incorporated into Revision F. The over stamped drawing was corrected and did not affect the qualify of installation, however, steps have been taken to minimize the over stamping.

Drawing M538, Sheet 10, was not issued for use in the field.

M539 - Sheet 3

Phillips, Getschow Company document transmittal record indicates drawing M539, Sheet 3, Revision R was issued to the field on June 28, 1982. Phillips, Getschow Company performed an audit as a follow-up to the NRC report and determined the drawing was in place. No further action is required at this time.

M539 - Sheet 5

Commonwealth Edison Company office drawing Revision K was over stamped with FCR 1358. The over stamped drawing was corrected and did not affect the quality of installation, however, steps have been taken to minimize the over stamping.

Phillips, Getschow Company office copy of M539, Sheet 5, Revision K has been in place on the stick file since October 1, 1981 and has no FCR notations on the drawing. FCR 1446 was written for M539, Sheet 10. FCR 1512 was written for M539, Sheet 9. No drawing change was required for FCR 1446.

M539 - Sheet 10

Phillips, Getschow Company office performed an audit as a follow-up to the NRC report. Review of the drawing M539, Sheet 10, Revision N shows only one FCR 8118 stamped on the drawing. FCR 8235 applies to drawing, M539, Sheet 11. FCR 6058 was picked up on Revision N. Currently, the latest revision in the field is Revision P. No further action is required at this time.

M539 - Sheet 11

- * Commonwealth Edison Company office drawing Revision Y, was over stamped with FCR 6059. The over stamping was removed and did not affect the quality of installation. FCR's 9344 and 9182 were inadvertently omitted and have subsequently been added to the drawing. Currently, Revision AA is the latest revision and all FCR's are properly annotated on the drawing. No further action is required.

M539 - Sheet 14

Phillips, Getschow Company office drawing Revision N was over stamped with FCR's 3328 and 6144. The over stamped drawing was corrected and did not affect the quality of installation. However, steps have been taken to minimize the over stamping.

M539 - Sheet 18

Phillips, Getschow Company received M539, Sheet 18, Revision L on April 7, 1983. Currently, Revision L is on the Phillips, Getschow Company drawing stick. No further action is required.

M539 - Sheet 19

Phillips, Getschow Company office drawing Revision U was over stamped with FCR 6216. FCR 6216 was picked up on Revision T. FCR's 9182 and 9238 were stamped on April 14, 1983 and April 5, 1983.

Currently, Revision V is in the Field and FCR 9238 remains stamped on the drawing.

M539 - Sheet 20

Commonwealth Edison Company office drawing Revision K was overstamped with ECNs 2474 and 2256. The overstamping was removed and did not affect the quality of installation. However, steps have been taken to minimize the overstamping.

M539 - Sheet 21

Drawing M539, Sheet 21, Revision K was issued to the field on April 7, 1983. Traceability of the drawing was maintained by the Phillips, Getschow Company document transmittal records and the drawing was possibly in transit during the time of the NRC inspection, since the date of the inspector's check is not known.

M539 - Sheet 27

Phillips, Getschow Company document records indicate M539, Sheet 27, Revision G has been in place in the Phillips, Getschow Company office drawing file since June 28, 1982. Phillips, Getschow Company audit verified the location of the drawing. No further action is required at this time.

M539 - Sheet 34

Commonwealth Edison Company office drawing Revision K was overstamped with ECN 1607. The overstamped drawing was corrected and did not affect the quality of installation. However, steps have been taken to minimize the overstamping.

CONCLUSION

The results of our detailed review indicate that of the forty (40) drawings, equaling 120 prints, six (6) prints contained valid inconsistencies. The remaining drawings had valid acceptable traceability within the Phillips, Getschow Company organization, contained overstamping of either FCR's or ECN's, or it could not be determined if a deficiency actually existed because subsequent drawing revisions have been received. In some instances there were five (5) subsequent drawing revisions prior to the receipt of the Reference (a) IE Inspection Report.

In general, we agree that certain types of document control deficiencies identified in IE Inspection Reports 456/82-08, 457/82-08, and 456/83-07, 457/83-07 and similar deficiencies identified by Commonwealth Edison Company Quality Assurance warranted a detailed review of the Phillips, Getschow Company document control procedures. The following listing describes the

actions taken to identify the extent of the problem and provide corrective action which includes minimizing the overstepping of drawings.

CORRECTIVE ACTION TAKEN AND TO BE TAKEN TO AVOID FURTHER
NONCOMPLIANCE

1. Phillips, Getschow Company performed an internal audit (83-BR15) to define the scope of the problem.
2. Phillips, Getschow Company revised their Quality Assurance Manual (QAM, Section 5.0 and 10.0) and Quality Control Procedures (QCP-B29 and PGCP-1) to implement a "Document Station Concept".
 - a. The "Document Station Concept" will consist of six (6) areas (Containment, Auxiliary, Turbine, Instrumentation, Fab Shop and a master set in the Engineering Office).
3. Establish and maintain a FCR/ECN Log to improve traceability.
4. Limit quantities of controlled drawings to Document Stations and supplement only as needed for field support and the use of uncontrolled drawings for non-production activities.
5. Perform a 100% check of all Document Stations and update any deficient drawings located in the field.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full implementation of the program for all Document Stations is expected to be completed by mid-October starting with:

1. Containment 1, Document Station by September 16, 1983.
2. Auxiliary Building Document Station by September 23, 1983.
3. Instrumentation Document Station by September 30, 1983.
4. Fab Shop Document Station by October 7, 1983.
5. Turbine Building Document Station by October 4, 1983.

VIOLATION NO. 2

10 CFR 50, Appendix B, Criterion XVI requires in part, "Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, ...are promptly identified and corrected."

Commonwealth Edison's Quality Assurance Manual, Quality Requirement 16, Paragraph 16.1, states in part, "A corrective action system will be used to assure that such items as failures, malfunctions, deficiencies, deviations, defective material and equipment and nonconformances which are adverse to quality and might affect the safe operation of a nuclear generating station are promptly identified and corrected. Corrective action measures for nonconformances are included in the design, source fabrication and on-site construction, erection and operations phases." Corrective action measures shall consist of a program for: (1) reporting nonconformances; (2) recording nonconformances; (3) prompt resolution and approval of corrective actions by Engineering; (4) assurance by Construction that the corrective action has been taken;...

Contrary to the above requirements, the licensee's quality assurance program failed to identify that discrepancies existed between the condition of the installed equipment and the completed inspection forms signed by the licensee's quality assurance department even though hold points were required to assure a dependable inspection program was being implemented by the contractor and that the installed condition for all safety related equipment would be promptly identified, documented and where necessary appropriate corrective action initiated.

RESPONSE TO VIOLATION NO. 2

DISCUSSION

Hold points were set by Commonwealth Edison Company's site Quality Assurance Department on a sampling basis of selected equipment installation activities as documented on the Phillips, Getschow Company Equipment Installation Record (EIR). Commonwealth Edison Company's site Quality Assurance Department's verification was not a 100% check of all installation activities for all safety related equipment. The sampling was intended to verify that Phillips, Getschow Company's procedure QCP-B22 was being implemented in an acceptable manner.

For the twenty-three (23) pieces of equipment listed, no mandatory hold points had been set by Commonwealth Edison Company's site Quality Assurance Department to verify thread engagement; except for one (1) piece (1CV04AB). For 1CV04AB, the Commonwealth Edison Company's Quality Assurance Department verified that a Phillips, Getschow Company NCR No. 827, dated September 28, 1982 had been written to address the one (1) anchor bolt that had insufficient thread engagement. Commonwealth Edison Company NCR No. 424, dated October 18, 1982 had been written to obtain corrective action from Commonwealth Edison Company Project Engineering Department. NCR 424 is currently under review at Commonwealth Edison Company Project Engineering Department.

However, in order to assure the accuracy of previously inspected equipment, and to affect corrective action, Project Construction and Phillips, Getschow Company's Quality Control personnel performed a second inspection for thread engagement on all safety related equipment.

As a result of the second inspection, it was determined that nine (9) bolts out of 1381 had insufficient thread engagement and these nine (9) bolts affected eight (8) pieces of equipment. This has been documented in PGCo NCR 1117.

CORRECTIVE ACTION TAKEN AND THE RESULTS ACHIEVED

Subsequent to the second thread engagement inspection, S & L reviewed the acceptability of the as-installed thread engagement for the nine (9) bolts. S & L accepted the installations as-is and the results were documented on CECO FCR's 10428, 10429, 10430, 10431, 10432, 10433, and 10434. All other bolts were either previously identified as deficient by Commonwealth Edison Company and/or Phillips, Getschow Company's NCR's, or properly documented by either FCR's or ECN's.

CORRECTIVE ACTION TAKEN TO AVOID FURTHER NONCOMPLIANCE AND DATE ACHIEVED

PGCo Q.C. personnel who perform equipment installation inspections were given additional training concerning thread engagement acceptance criteria.

Also the limitations of S & L ECN 3096 have been corrected and clarified by the issuance of S & L ECN 4874 to address the mechanical design drawing for "Equipment Foundation Anchor Bolts" (i.e. drawing M-1212).

The date of full compliance was September 6, 1983