



Commonwealth Edison

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April 4, 1983

Mr. James G. Keppler, Regional Administrator
Directorate of Inspection and
Enforcement - Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

Subject: LaSalle County Station Units 1 and 2
Response to Inspection Report Nos.
50-373/82-40 and 50-374/82-10
NRC Docket Nos. 50-373 and 50-374

Reference (a): C. E. Norelius letter to Cordell Reed
dated February 14, 1983.

Dear Mr. Keppler:

This letter is in response to the inspection conducted by Messrs. F. W. Reimann and R. D. Lanksbury on August 4 through 27, 1982 of activities at LaSalle County Station. Reference (a) indicated that certain activities appeared to be in noncompliance with NRC requirements. On February 22, 1983, Mr. R. D. Walker of your office granted an extension of the due date for our response to April 8, 1983. The Commonwealth Edison Company response to the Notice of Violation is provided in the enclosure.

Reference (a) also stated:

"While we determined in the earlier inspection that the technical issues identified had been properly resolved, we are concerned that the records violations identified do not provide the added measure of assurance of construction quality that the program requires. Therefore, in addition to responding to the specific items of noncompliance, please describe the overall management controls which you have planned and taken to improve your record keeping practices for quality assurance. We also plan to conduct additional inspection activities to provide ourselves increased assurance that the quality assurance documentation adequately describes the as-built conditions at the facility."

A detailed discussion of this topic is also addressed in the attachment.

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J. G. Keppler

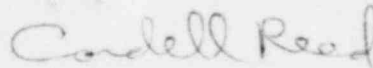
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April 4, 1983

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 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,



Cordell Reed
Vice President

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Attachment

cc: NRC Resident Inspector - LSCS

6187N

LaSalle County Station Units 1 and 2

Response to NRC Inspection Report

No. 50-373/82-40 and No. 50-374/82-10

NRC's Concern

In the February 15, 1983, letter from the NRC which transmitted the above referenced inspection report; the NRC requested that ... "in addition to responding to the specific items of noncompliance, please describe the overall management controls which you have planned and taken to improve your record keeping practices for quality assurance."

Response

In regards to concerns identified during the inspection, which deal with record keeping practices, Commonwealth Edison has done the following:

- 1) All Quality Assurance Department Lead Auditors were retrained in methods for examining quality records. Emphasis was placed on how to examine documents for alterations, repetition of data, duplication of signatures and validity of quality document review and approval. This training was completed on August 27, 1982.
- 2) Quality Assurance Department Memorandum No. 20, issued on October 12, 1982, established sample size requirements to be taken during Quality Assurance Department audits of quality records.
- 3) The General Office Quality Assurance Department conducted audits of site contractors at LaSalle, Byron and Braidwood examining quality records, using the techniques described in Steps (1) and (2) above.
- 4) The techniques described herein have been established as standard Quality Assurance Department practices which will be followed on future audits.

LASALLE COUNTY STATION UNITS 1 AND 2

RESPONSE TO INSPECTION REPORT NOS.

50-373/82-40 and 50-374/82-10

Item of Noncompliance

1. 10 CFR 50, Appendix B, Criterion XVIII "Audits", requires that a comprehensive system of audits be carried out to verify compliance with all aspects of the Q.A. program. Section 18 of the CECQ Q.A. Manual requires that audits be performed at specified periods to fulfill this requirement.

Contrary to the above, CECQ audits of Morrison Construction Company were inadequate in that the noncompliance identified by the NRC during this inspection were not identified by the CECQ audits for period ranging from two to seven years, depending upon the item. (For most items, audit periods were semiannual or yearly.)

373/82-40-13 and 374/82-10-13

Response:

Quality Assurance does not dispute that Edison's audit program did not discover the problems associated with the quality of MT&E documentation. The audit performed by Edison Quality Assurance June 29th thru July 8th, 1982, noted that the auditors were not attuned to looking for records alterations of the sort identified. Further, a close examination of objective evidence for Edison audits in the calibration area noted no cases where the altered records found by NRC were reviewed in any of the CECQ audits performed. In the same audit report Edison did acknowledge the need to train audit personnel in this area and increase the sample size when auditing large numbers of similar records.

In regards to the contractor audits asking the same audit questions consistently, Quality Assurance does not believe this problem exists for Edison QA audits. It has always been the practice of Edison Quality Assurance to develop audit checklists using current manuals and procedures, rather than duplicating audit questions from past audits. This practice tends to minimize repetitious reviews of certain activities, which is apparently the NRC's concern, but only when the audited activity is of a diverse nature. Some activities can be addressed by audit questions in only a limited number of ways.

The last item of concern in the subject report, is the Quality Assurance practice of notifying contractors in advance, of those portions of the contractors program which will be audited. It should be noted that most of the site contractors have QA/QC personnel monitoring specific activities. By notifying the contractor in advance of the general areas or activities to be audited, it's possible to avoid scheduled conflicts with personnel knowledgeable in the audited activity. It is highly unlikely that an advance notice of one or two weeks will allow the auditee to correct possible deficiencies in installations involving hundreds of manhours, or documentation compiled over many months or years. As such, we do not believe that any change is necessary in this area.

Corrective Action Taken and Results Achieved:

The following actions have been taken by Commonwealth Edison as a result of the concerns which surfaced as a result of the Morrison records problems:

- 1) Meetings and discussions, including documented training sessions, have been held between Quality Assurance General Office management and the departments lead auditors. These sessions reviewed the results of the NRC's investigation and emphasized the need to assure that audited items and activities are thoroughly reviewed.
- 2) General Office audits of all three construction sites (LaSalle, Byron and Braidwood) were conducted. These audits specifically focussed on the review of records and looked for any possible cases of records alteration or falsification. Only one case of possible records alteration was identified at the LaSalle site during these audits. The record involved a signature on a concrete inspector's qualification.

Thorough evaluation of inspectors activities indicated no safety related work performed in the area affected by this document. No similar circumstances were found on any other record. The QA records audits of all three construction sites are available for review.

- 3) Site Quality Assurance held a meeting with all on site QA/QC supervisors to review the requirements for calibration activities at the site and the importance of sample size to assure that any record anomalies are detected.
- 4) As an added check of on site calibration activities for torque wrenches, Edisons site QA has directed the independent testing agency to initiate a program of sampling calibrated wrenches on a weekly basis from each site contractor to further assure that torque wrench calibration activities are properly performed. This program has been in effect since September 1982.

Corrective Action Taken To Prevent Recurrence

See Items 1,3 and 4 above

Date of Full Compliance

Compliance has been achieved as of January 1, 1983.

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Item of Noncompliance

2. 10 CFR 50, Appendix B, Criterion XII, "Control of Measuring and Test Equipment," requires that measures be established to assure tools, gauges, instruments, and other measuring and test devices are properly controlled, calibrated and adjusted at specified periods to maintain accuracy within necessary limits. Criterion V requires that activities affecting quality be prescribed by documented instructions, procedures, or drawings. Section 10 of the MCCo QA Manual establishes procedural requirements to fulfill these regulatory requirements. MCCo Procedure PC-31 provides the instructions for performing such calibrations and adjustments at specified periods.

Contrary to the above, one or more of the following discrepancies were found to apply to ten different types of tools or measuring and test devices:

- Equipment not addressed in Procedure PC-31 (or other procedures).
- Equipment addressed but acceptance criteria for adjustments or calibrations either (1) not specified, or (2) improperly specified.
- Equipment addressed (for example, need to calibrate or calibration frequency) but no instructions supplied to perform work (or reference to instructions, such as manufacturer's manual).

Additionally, the individuals performing calibrations of torque wrenches and hydrostatic and test pressure gauges routinely deviated from the requirements of the approved procedures.

It appears that these discrepancies have existed since the program was implemented in 1974.

373/82-40-5 and 374/82-10-5

Response:

Corrective Action Taken and Results Achieved

A review of the NRC, Commonwealth Edison Company (CECo) and Morrison Construction Company (MCCo) audit results and field verifications of the work associated with MCCo M&TE indicated the exceptions from the specification requirements were a minor percentage of the total documentation population. For those exceptions noted in the field work, it was not evident that they were traceable to any calibration deficiencies.

Relative to the procedural discrepancies, the following are now included in revised MCCo standard operating calibration procedures:

1. All M&TE used for final acceptance.

2. Realistic acceptance criteria and calibration frequencies based on manufacturers recommendations and specification requirements.
3. Revised forms allowing easier logging and reviewing of calibration document.
4. Q.C. acceptance review for completeness prior to filing each calibration document.

Corrective Action Taken to Prevent Recurrence

The changes stated above will prevent recurrence. Additionally, necessary Production and Quality Control personnel have been reinstructed in the subject procedures, the importance of adherence to established requirements, and the necessity of obtaining procedural changes prior to implementing deviations or improvements.

Date of Full Compliance

Full compliance was achieved as of August 6, 1982.

Item of Noncompliance

3. 10 CFR 50, Appendix B, Criterion XV, "Nonconforming Materials, Parts, or Components," requires that measures be established to control nonconforming items to prevent their use. Section QA-13 of the MCo QA Manual implements this requirement by requiring that nonconforming items be labeled and dispositioned using a Nonconformance Report (NCR).

Contrary to the above, on June 22, 1982, the inspector witnessed the identification of a nonconforming torque wrench, and no NCR was prepared. Moreover, the licensee confirmed that the requirements of QA-13 were not uniformly implemented for measuring and test equipment in his report of special audit, dated July 8, 1982.

373/82-40-6 and 50-374/82-10-6

Response:

Corrective Action Taken and Results Achieved

A review of the hold tag records indicates that more than 80% of the hold tags were dispositioned by nonconformance reports or were for instruments that were put on hold after calibration due dates. After it was possible to calibrate the instrument, the hold tags were removed.

A majority of the remaining 20% were for instruments that were put on hold due to a need for minor repairs. Disposition of these items indicated there was no basis to question the calibration of the subject instruments in the specified periods.

Corrective Action Taken to Prevent Recurrence

Morrison Construction Company (MCo) standard operating procedure PC-31 has been revised to clarify when nonconformance reports must be written for measuring and test equipment.

Date of Full Compliance

Full compliance was achieved as of August 6, 1982.

Item of Noncompliance

4. 10 CFR 50, Appendix B, Criterion XVII, "Quality Assurance Records," requires that sufficient records be maintained to furnish evidence of activities affecting quality, including, at least: operating logs; results of reviews, inspections, tests, and audits; monitoring of work performance; materials analyses; and closely related data such as identity of inspector, type of observation, results, acceptability, and actions taken in connection with noted deficiencies. MCo QA Manual, Chapter QA-11 and QA-6 implement program requirements for identifying, recording, and storing quality records, and for performing receipt inspection, respectively.

Contrary to the above, numerous instances of failure to perform adequate receipt inspection for measuring and test equipment, and failure to record accurate data in records of activities affecting quality were noted during the period of 1980 through 1982.

373/82-40-7 and 50-373/82-10-7

Response

Corrective Action Taken and Results Achieved

On October 22, 1982 a 100% audit of the Morrison Construction Company (MCo) measuring and test equipment documentation was completed. The content of the audit was as follows:

1. Verification that the the calibration certificates are complete.
2. Documentation accuracy and acceptance.
3. Verification of calibration frequency.
4. Physical inventory of all measuring and test equipment.

MCo's Quality Control Department completed the clarifications and/or corrective action to this audit on December 3, 1982. No additional field verifications beyond that specified in the July 8, 1982 Project Construction Report were required.

The calibration reports for the torque wrench calibration transfer standard have been accepted as is.

Corrective Action Taken to Prevent Recurrence

The industry standards relative to go/no go calibration tests is not uniform. As an example, ASME Code Interpretation III-2-79-25, does not establish specific requirements to include actual readings or measurements for items which are found within specified calibration tolerances. However, to maintain consistency between the various M&TE calibration forms, the forms have been changed to require actual readings to be recorded with acceptance limits/ranges listed.

A review of all MCCo M&TE calibration records indicated that approximately 7% contained minor errors or deviations from specific requirements. To improve on the existing MCCo documentation review system, the following measures have been taken:

1. MCCo procedure PC-31 requires that manufacturer/vendor calibrated instruments be receipt inspected.
2. A Quality Control (QC) technical instruction has been written to specify the requirements for the Q.C. final review of documentation.
3. A work instruction has been written for correction of errors in permanent documentation and replacement of lost or destroyed documentation. This instruction controls and documents correction and replacement activities.

Quality Control files will be periodically audited to assure completeness by MCCo Quality Assurance Department.

Date of Full Compliance

Full compliance was achieved as of December 3, 1982.

Item of Noncompliance

5. 10 CFR 50, Appendix B, Criterion VI, "Document Control", requires that measures be established to control the issuance of documents (instructions, procedures, drawings) including changes thereto.

Contrary to the above, MCCo Welding Procedure P8-18LS, Revision 4 was issued on November 21, 1980. The revision was not included in the procedure for welding grid Volt/Amp surveillance as of June 1982. Additionally, Drawing No. 21N-48, Revision B was approved and issued for construction February 23, 1982 requiring Revision 3 of P8-18LS for the control of welding.

373/82-40-9 and 374/82-10-9

Response

Corrective Action Taken and Results Achieved

The controlled copy of weld procedure P8-18LS, Revision 3 was received by the Morrison Construction Company (MCCo) Engineering Department on October 12, 1977. Isometric drawing 21N-48, Revision B was issued for production on February 24, 1982, approximately three months before the controlled copy of Revision 4 was received by the Engineering Department on June 5, 1982.

Both revisions of procedure P8-18LS received the proper approvals and the one weld specified on Revision B of ISO 21N-48, Revision B was completed per the correct welding procedure issued for specific period. In other words, either Revision 3 or Revision 4 of P8-18LS was acceptable.

Relative to the time period between the procedure approval given to MCCo in 2/81 and the formal issuance by the contractor in 6/82, an audit by MCCo has been recently completed to assure that all the required weld procedures that have been approved are formally issued. The audit determined that all the required weld procedures were issued.

Action Taken to Prevent Recurrence

MCCo Welding Department personnel have been instructed to issue approved procedures in a more timely manner.

Date of Full Compliance

Full compliance was achieved as of March 28, 1983.

Item of Noncompliance

6. 10 CFR 50, Appendix B, Criterion IX, "Control of Special Processes," requires that measures be established to ensure the adequacy of special processes. As a portion of the program to comply with this requirement, MCCo implemented procedure PC-41, Revision 0 which requires that a weekly surveillance of welding grid volts/amps be conducted, and that results be recorded on Form PC-84.

Contrary to the above, the surveillances were not adequately implemented in that approximately 350 records of consecutive weekly surveillances contained 199 examples of accepted out of tolerance data, missing data and signatures, use of wrong acceptance criteria, and improper weld procedure references.

373/82-40-10 and 374/82-10-10

Response

Corrective Action Taken and Results Achieved

A reanalysis of the Morrison Construction Company (MCCo) voltage/ amperage surveillances indicated that approximately 15% of the 1862 inspections contained errors in the logging of voltage/amperage ranges or procedure revisions. Three cases were identified where the readings were not within the weld procedure ranges. These have been subsequently dispositioned.

On September 22, 1982 an audit was completed of a sampling of other documents which required verifications by the Q.C. inspectors involved with the voltage/amperage surveillances. No general error trend relating to these individuals was noted.

Corrective Action Taken to Prevent Recurrence

MCCo Procedure PC-41 has been revised to include:

1. Revised form to obtain better control of production and inspection activities, including a Q.C. acceptance or rejection signature.
2. Disposition of voltage/amperage readings found outside the parameters of the procedures.

Personnel have been trained in the subject procedure.

Date of Full Compliance

Full compliance was achieved as of September 22, 1982.

Items of Noncompliance

7. 10 CFR 50, Appendix B, Criterion IX, "Control of Special Processes," and Criterion X, "Inspection", require that measures be established to ensure the adequacy of special processes. As a portion of the program to meet these requirements, the licensee requires Nondestructive Examination of welding activities on components which are important to safety.

Contrary to the above, final QC acceptance of the piping support controlled by traveler RH63-2895C (Drawing M939-2) was accomplished on June 23, 1982 without fulfilling the requirement for weld dye penetrant or magnetic particle testing required by Drawing M939-2.

373/82-40-11 and 374/83-10-11

8. 10 CFR 50, Appendix B, Criterion XV, "Nonconforming Materials, Parts, or Components," requires that measures be established to control items which do not conform to requirements in order to prevent their inadvertent use or installation. Measures shall include, as appropriate, procedures for identification, documentation, segregation, disposition, and notification of affected organizations. Section QA-13 of the MCCo QA Manual implements the MCCo requirements for control of nonconforming items, including repair or rework.

Contrary to the above, the requirements for control of nonconforming items were not applied to controlling certain nondestructive examination (NDE) requirements, in that no method was implemented for tracking NDE requirements for base metal following rework (such as the removal of weldments).

373/82-40-12 and 374/82-10-12

Response

Corrective Action Taken and Results Achieved

The controlled system to assure NDE is performed on supports/restraints is described in Morrison Construction Company (MCCo) Work Instruction WI-17-3. As indicated by MCCo Q.C. to the NRC inspector, this verification system is not performed in the field, but is done by Q.C. office personnel. Some confusion might have existed as to what information the NRC inspector requested.

WI-17-3 requires the following steps to assure NDE completion:

1. The Q.C. Traveller Group indicates NDE requirements on Form PC-113, Item 3A and in the Component Support Progress and Q.C. Review Form PC-63, Column 5.

2. Q.C. Record Group reviews the completed NDE activities and signs PC-113, Item 3D, when the documents are found acceptable and complete.
3. Q.C. Record Group indicates on Form PC-63, Column 5 that the NDE is complete.

Relative to drawing RH03-2895C, Revision C and PT Report #9657, the following discrepancies were noted:

1. The PT requirement was incorrectly marked on the drawing. This owner requirement is for containment liner attachments and not for embed plates in the sacrificial steel. It was not corrected when Q.C. signed Item 3D on the PC-113 Form. The PC-63 entry was left open.
2. When snubber RH03-2844S near support RH03-2895C was removed the incorrect support number was referenced on PT Report #9657 and logged as complete in the PC-63 review log. Similarly, a PT of the embed plat removal area was not required, but was meant to apply to containment liner temporary attachment removals.

Subsequently, PT Report #9657 and PC-63 log were corrected to reference the correct snubber number of RH03-2844S. Drawing RH03-2895C, Revision C was corrected to indicate a PT was not required.

Corrective Action Taken to Prevent Recurrence

The Q.C. Record Group has been reinstructed not to sign Item 3D on the PC-113 Form until the NDE requirements listed above are either corrected or completed as required.

It is felt the error made on PT Report #9657 is an isolated case. This is supported by the audit results as stated for Item 373/82-40-10 and 374/82-10-10.

In addition to the above, the discrepancies noted did not result in any violation of specification or code requirements.

Relative to the procedural requirements on containment liner removals, specifically, the requirement is to document the work after the full liner inspection prior to the containment Integrated Leak Rate Test (ILRT). This has been accomplished per MCCo work instruction WI-18 in Unit #1 and will be similarly performed in Unit 2.

Date of Full Compliance

Full compliance was achieved as of August 30, 1982.

Item of Noncompliance

9. 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," requires that activities affecting quality shall be accomplished in accordance with appropriate instructions, procedures, or drawings.

10 CFR 50, Appendix B, Criterion X, "Inspection," requires that examinations shall be performed before each work operation where necessary to assure quality.

Contrary to the above, two of the four bolts securing the motor operator to the yoke of an inboard main steam line drain isolation valve were found loose (not even hand tight). The mechanical joint checklist for this boltup indicated that these bolts had been torqued to 50 ft.-lbs. by two MCCo mechanics, verified by their supervisor and verified by an MCCo QC inspector.

373/82-40-16

Response:

Corrective Action Taken and Results Achieved

The last bolt-up on valve 1821-F016 motor operator to yoke connection was number RE BU 3103. Morrison Construction Company (MCCo) Q.C. signed a hold point on November 27, 1981, verifying the connection was tightened. Subsequent to this work, on April 14, 1982, the limitorque operator was inspected and the internal lock nut staked per IE-Circular 79-04. The exact reason the operator to yoke connection bolts were found loose on June 18, 1982 is not known.

A program has been completed in Unit 1 to verify the tightness of accessible safety-related air and motor operator bolted connections inside and outside the containment. Pressure boundary bolting was not included.

Corrective Action Taken to Prevent Recurrence

A similar program will be performed in Unit 2 prior to fuel load.

Date of Full Compliance

Unit 1 is in full compliance. Unit 2 will be completed prior to fuel load.

Item of Noncompliance

10. 10 CFR 50, Appendix B, Criterion II, "Quality Assurance Program," requires that the applicant shall establish at the earliest practical time, consistent with the schedule for accomplishing the activities, a quality assurance program which complies with the requirements of this appendix. This program shall be documented by written policies, procedures, or instructions and shall be carried out throughout plant life in accordance with these policies, procedures, and instructions.

Commonwealth Edison Company states in part in their Quality Assurance Program Topical Report CE-1-A, Revision 15, Section 2, "Certification records will be maintained by the Quality Assurance Department as well as the department wherein the employee performs his activities. Qualification and certifications will be maintained in a current status and will be established to meet the applicable requirements of ASME Code and ANSI Standard N45.2.6." Additionally, Section 2, commits to ANSI N18.7-1976 which endorses ANSI N45.2.6-1973 in Paragraph 5.2.7.

Contrary to the above, four Morrison Construction Company QC inspectors interviewed during the inspection were not aware of their responsibilities as Level I and II inspectors as required by ANSI N45.2.6 nor did they meet these requirements when performing duties as Level I and II inspectors.

373/82-40-15 and 374/82-10-15

Response:

Corrective Action Taken and Results Achieved

The different explanations provided by Morrison Construction Company (MCCo) Q.C. Inspectors were not in violation of MCCo procedures or Q.A. Manual requirements. When a Q.C. Inspector (office) signs acceptance of documents which already reflect signatures of individuals who performed accept/reject functions or Q.C. witnesses, he is only accepting the document for record.

All MCCo Q.C. personnel who accept/reject through actual performance or witnessing of examinations are strictly Level II personnel qualified to procedure PQC-1 or PQC-3 based on SNT-TC-1A and N45.2.6, respectively. A Level III is reserved for specific management of personnel, certification of personnel and procedure approvals. No Level I personnel of any type have been used.

Specific documented training exists per approved procedures and the Q.A. program which define responsibility for sign-offs and approval/acceptance requirements of which all Q.A./Q.C. personnel are trained and certified. Q.A./Q.C. training records reflect that personnel were trained in all applicable procedures and instructions relating to their duties.

MCCo developed and submitted PQC-3, Revision 0, based on ANSI N45.2.6 and received approval and implemented requalification in 1978. Previously Q.C. personnel were trained, qualified and certified to a written practice based on SNT-TC-1A. Prior to these dates, ANSI N45.2.6, did not apply to the MCCo 1974 contract since ANSI N45.2.6, 1973 was only a draft document at the time. Approved Q.A. program, procedures, training, and certification procedures, etc., were considered more than adequate during that time of the construction phase.

Corrective Action Taken to Prevent Recurrence

To eliminate any possible confusion, the following measures are now included in MCCo standard operating procedures or work instructions.

1. A Q.C. Level II Inspector shall witness all calibration of tools/instruments performed by MCCo personnel.
2. A Q.C. Level II Inspector, different from the one that accepted the initial calibration process or work activity, shall review and accept the completed documentation for completeness, originality, or acceptable duplicate original.
3. This additional review shall be performed by a member of a Q.C. Traveller Group trained in his area of review with the record types to be reviewed included in a work instruction.

Date of Full Compliance

Full compliance was achieved as of August 6, 1982.