

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-373/82-40(DETP); 50-374/82-10(DETP)

Docket Nos. 50-373; 50-374

Licenses No. NPF-11; CPPR-100

Licensee: Commonwealth Edison Company
P. O. Box 767
Chicago, IL 60690

Facility Name: LaSalle County Station, Unit 1

Inspection At: LaSalle Site, Marseilles, IL

Inspection Conducted: August 4-27, 1982 and Enforcement Conference held
on September 17, 1982

Inspectors: *Frank W. Reimann*
F. W. Reimann

R. D. Lanksbury
R. D. Lanksbury
(Paragraph 5.k)

Approved By: *I. N. Jackiw*
I. N. Jackiw, Chief
Test Programs Section

February 2, 1983

2/4/83

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Inspection Summary

Inspection on August 4-27, 1982 and Enforcement Conference held on September 17, 1982 (Reports No. 50-373/82-40(DETP); 50-374/82-10(DETP))

Areas Inspected: Reactive Inspection to follow up on programmatic and enforcement matters relating to issues identified in technical inspection report No. 50-373/82-35; including resolution of final concerns relating to torque wrench calibrations by Morrison Construction Company (MCCo), evaluation of licensee response to the NRC Confirmation of Action Letter dated July 8, 1982, and evaluation of the licensee's audit report of July 8, 1982 (which documents the licensee's audit of MCCo QA records). The inspection required a total of 127 inspector-hours onsite by two NRC inspectors, including 17 inspector-hours during off-shifts and six inspector-hours of inspection at the licensee's corporate office.

Results: Ten items of noncompliance with NRC requirements were identified in the three areas inspected (failure to conduct adequate audits, Paragraph 5.j; failure to develop adequate procedures for, or implement procedures for calibration of measuring and test equipment (M&TE), or both, Paragraph 5.c; failure to adequately control nonconforming M&TE, Paragraph 5.d; failure to produce and maintain adequate records for M&TE, including receipt inspections, Paragraph 5.e; failure to implement revisions to procedures controlling work which is quality related, Paragraph 5.g; failure to adequately implement

voltage/amperage welding surveillance procedure, Paragraph 5.h; failure to complete NDE required by design drawings prior to accepting work, Paragraph 5.i; failure to include certain rework items in NDE control procedures, Paragraph 5.i; failure to meet design torque requirements in installed equipment, Paragraph 5.k; failure to implement the requirements for Levels I, II, III inspections as delineated in ANSI N45.2.6, Paragraph 5.1). The noncompliances are discussed in Paragraph 5 of this report. The matter of possible falsification of QA documentation is being forwarded to the NRC Office of Investigation for resolution.

In addition to the above, several open and unresolved items were identified which require resolution by the licensee.

DETAILS

1. Persons Contacted

CECo

- +*B. B. Stephenson, Operations Manager
- +*D. J. Skoza, Construction Engineer
- +*T. E. Quaka, QA Superintendent
- *J. L. Woldridge, Site QA Supervisor
- +*D. L. Shamblin, Site Project Construction Superintendent
- +*R. Vine, QA Engineer
- +*B. J. McAndrew, PCD
- *R. A. Braum, QA Supervisor
- +*W. E. Valle, CEC Co PCD
- G. Marcus, Director, QA
- K. J. Hansing, CEC Co Lead Auditor
- A. M. Montalto, QA Inspector
- + M. J. Wendell, QA Engineer
- G. M. Maksimak, Auditor

MCCo

- *M. Wherry, QC Supervisor
- D. Kanakares, QC Inspector
- D. Kozlowsky, QC Inspector
- P. Granby, QC Inspector
- J. Bitner, QC Inspector
- K. Kranz, Welding Supervisor
- J. Walloghby, Millwright Supervisor
- +*J. A. Lubrant, QA Manager
- R. McCloskey, NDE Examiner
- +*W. Hamilton, QC Inspector
- K. J. Hamilton, QC Inspector
- +*L. J. Butler, Assistant QC Supervisor
- + J. Zappia, Project Engineer

+ Denotes those present during the pre-exit meeting conference of August 20, 1982.

* Denotes those present during the exit interview held on August 27, 1982.

Numerous other individuals representing licensee and contractor management, and licensee and contractor technical and craft personnel were observed and interviewed during the course of this inspection and inspection 50-373/82-35 (which also assessed the issues of concern addressed in this report).

Persons Attending the September 17, 1982 Enforcement Conference

- J. G. Keppler, Regional Administrator
- C. E. Norelius, Director, DETP

W. S. Little, Chief, Engineering Inspection Branch
I. N. Jackiw, Chief, Test Programs Section
F. W. Reimann, Inspector
R. D. Lanksbury, Inspector
R. D. Walker, Chief, Projects Section 2C
A. L. Madison, RI, LaSalle Station
W. G. Guldemond, SRI, LaSalle Station

CECo

C. Reed, Vice President
L. DelGeorge, Director, Nuclear Licensing
W. J. Shewski, Manager, QA
G. F. Marcus, Director, QA
B. B. Stephenson, Operations Manager
R. E. Jortberg, Director, Nuclear Safety
R. H. Holyoak, LSCS Project Management
D. L. Shamblin, Site Project Construction Superintendent
C. W. Schroeder, Nuclear Licensing
T. Quaka, Site QA Superintendent
F. J. Hansing, QA Supervisor
D. J. Skoza, PCD Engineering
W. E. Vahle, CECO
P. Steptoe, CECO

MCCo

D. O. Carlson, Vice President
K. J. Hamilton, Project Manager
M. F. Wherry, QC Supervisor

2. Torque Wrench Calibration Concerns

Section 10 of Inspection Report 50-373/82-35 identified a number of concerns surrounding the MCCo program for verifying and documenting the calibration of torque wrenches used in performing work which is important to safety. The report also documented the evaluations and studies which were performed by the licensee and the NRC which determined that the "worst case" identified out of calibration condition was not likely to result in an adverse safety impact. The report, however, did not specifically address an evaluation of the potential safety impact upon rotating equipment and mechanical snubber applications of the wrenches.

Finding: The inspector met with licensee representatives and reviewed the evaluations which were performed and documented in report 50-373/82-35. It is concluded that the usage of torque wrenches had been adequately addressed in the NRC and licensee evaluations. Therefore, no concerns exist in regard to rotating equipment and snubber application of MCCo torque wrenches.

3. Evaluation of CECo Audit Report

The licensee committed to perform an audit of Morrison Construction Company (MCCo) quality documentation during a meeting with Region III on July 2, 1982. The scope and content of the audit was agreed to in a July 1, 1982 telephone conversation between I. N. Jackiw of Region III and G. Marcus of CECo QA, and the July 2, 1982 meeting. On July 8, 1982 Region III issued a Confirmation of Action Letter (CAL) which documented the licensee's commitments regarding the scope and content of the audit (Attachment 1). On July 9, 1982 the licensee delivered his audit report to Region III. The licensee received the CAL from Region III on July 12, 1982. The report confirmed that the problems identified by the NRC in response to allegations of falsified torque wrench calibration records were limited to calibration records. The audit report was attached to Inspection Report 50-373/82-35. Section X of that report documents the preliminary finding that the licensee audit was deficient because it did not address the requirements of Item 3 of the CAL, which required that a 100% audit be performed of all work done by individuals that were involved in generating potentially false records. The licensee issued Supplement I to the audit report on August 4, 1982 (Attachment 2). Supplement I was identified as the result of an audit of 100% of the documents generated by suspect individual(s).

The inspector reviewed the audit report, the objective evidence collected to support the audit report, and conducted an independent spot check of MCCo records to verify the validity of the licensee's audit.

Findings

The CAL required a check of all areas audited by individuals who had audited deficient MCCo records and had found them satisfactory. The licensee, in the July 8 audit report, stated that the MCCo record deficiencies were not found by QA auditors because the QA auditors are not instructed in techniques for finding the deficiencies which existed, or directed to look for deficiencies such as false records. The licensee, did not however, reaudit all work performed by auditors who failed to detect deficiencies in MCCo records. Therefore, the requirement of CAL item 3 was not met. The licensee's response was limited to document deficiencies which could be construed as false (i.e., photocopied signatures, use of white out, etc.). Numerous examples of other deficient practices (see 3.b.4 and 5.a below) were also found, and not addressed by the licensee because, in their view, they did not involve falsified records.

The licensee has verbally committed to conduct an audit of all other LaSalle project contractors by the end of October 1982, and contractors at other construction sites by the end of 1982. The auditors performing these efforts are to be trained in looking for the types of deficiencies found by the NRC. The licensee stated that the LaSalle project contractor audits had started at the time of the August 24, 1982 exit meeting.

The CAL and the licensee's verbal agreements required that all types of MCCo quality documentation be audited. The sample size for different

Types was to be determined by the likelihood of finding deficiencies, that is, records worked on by individuals who generated records already found suspect were to be 100% audited, and records which were not suspect were to have audit samples of 75 to 100 documents, or 100% if the total population is less than 75 to 100 documents.

The licensee identified the list of documents numbered (a) through (g) on page 8 of his audit report as those which were to be 100% audited because they were prepared by individuals who prepared suspect calibration records. The list identified as (a) through (q) on pages 7 and 8 of the audit report were identified as those document types which were to be audited on a 75-100 population basis. The two lists, then, were submitted as representing all types of documentation generated by MCCo.

- a. The licensee did not have an up to date list of document types generated by MCCo for the LaSalle project (Unresolved Item 373/82-40-01; 374/82-10-01). The MCCo QA Manual for LaSalle contains an extensive list of document types, but many of the types listed are not utilized on the LaSalle project. Neither the audit report nor the objective audit evidence utilize a consistent nomenclature for identifying types of documents, and the nomenclature used in the MCCo document system disagrees with both the audit report and the objective evidence. In addition to the nomenclature problems, different sample sizes of various documents were used to evaluate different groupings of audit questions. In some cases sample sizes were not recorded. It could not therefore, be determined whether or not the licensee complied with the audit sample requirements for types of records to be audited.

In the enforcement conference held on September 17, 1982, the licensee took the position that he was committed to audit four broad categories of MCCo QA records, and that items (a) through (q) on pages 7 and 8 of his July 8 report were erroneously identified as document types audited. (a) through (q) were redefined as the types of documents which were considered for audit (and it was stated that most of these types were audited). The licensee further explained that the audit report does not contain a list of the types of documents audited, but that the additional information submitted at the meeting would clarify the content and conduct of the audit. The list of record types audited by the licensee is set forth in Attachment 3.

- b. In regard to items (a) through (g) on page 8 of the audit report (for which 100% of the population was to be audited), the licensee concurred that a total population of 63 documents were audited (combined for all seven document types). The licensee elected to perform a re-audit of all records required to meet this commitment because of the difficulty in interpreting the objective evidence to identify what work was already audited. Supplement #1 to the July 8 audit report was issued by the licensee on August 4, 1982 to summarize the results of the re-audit. The inspector notes that the nomenclature has changed for the document types audited in the August 4 report and that one item originally included in the July 8 audit report has either been combined with another item or omitted from the re-audit.

Additionally, a list of 7 types of documents is listed in Supplement #1 as "Sampled for further assurance." Several of these 7 types of documents had not been previously identified.

- c. Items (a) through (q) identified on pages 7 and 8 of the licensee's audit report as the list of non-suspect documents to be audited at a sample size of 75-100 of each type (or 100% for total populations less than 75-100). The inspector requested further information regarding sample sizes during a July 14, 1982 telephone conversation with the head of the licensee's construction QA organization. The licensee confirmed that a sample of 75-100 of each document type was audited with the following exceptions:

- *. Item c - was not done separately, but as part of item b.
- *. Item d - was not done separately, but as part of item b.
- . Item e - was not included in the document list which controlled the audit. 75 documents were probably not sampled. The total number sampled could not be determined.
- . Item g - there is only 1 NCR log. The number of items checked in total is not known.
- . Item h - was not on the list which controlled the audit. Total number of documents audited is not known but probably less than 75.
- . Item i - was not on the list which controlled the audit. Total number of documents audited is not known but probably less than 75.
- . Item j - no documents audited. Item was included on list by error; MCCo has no input to these documents.

*These items, however, do not represent the total number of document types which could be included in a given item b. package.

In regard to Item (j), "ASME Code Data Reports," (and/or N-5 Data Reports) the inspector determined after the July 14 telecon that MCCo does in fact have input to item (j) documents in cases where MCCo is responsible for Mechanical Revision Directives (MRD) to equipment or design for the effected Code Data Report. In response to this finding, the licensee stated that he is taking credit for other audits of these documents performed prior to the discovery of the deficient documents which caused the audit to be performed. The licensee considers these documents acceptable on this basis. The inspector notes that the licensee has stated in his audit report that his QA organization did not discover the deficient documents because his inspectors were not trained or requested to look for the types of deficiencies discovered.

In addition to the above findings, the inspector determined that the total population of documents identified as item (q) "Calibration Personnel Certifications" was six documents. The licensee was asked to clarify his statement that 75 of these documents were audited. The licensee's response was that item (q) was not separately audited, but that item (q) was included with item (p), and that the total population audited for (p) plus (q) was at least 75 documents. Also, in the additional information submitted on September 17, 1982, the licensee stated that the six records represented all the calibration personnel.

- d. The minimum sample size requirements of the CAL (75-100 documents of each type or 100% for populations less than 75-100) was chosen on the basis that if a sample of this size is found to be free of deficiencies, then it is reasonable to accept the entire population.

Both the audit report of July 8, 1982 and the supplemental report of August 4, 1982 concluded that the types of deficiencies identified by the NRC were limited to MCCo calibration documentation. It was further stated that only the calibration documentation was prepared in a manner (repetitive use of the same form for the same equipment) conducive to photocopied pre-approval of documents or photocopying of data.

- . The inspector noted that the objective audit evidence documented a sample of 21 Weld Data Reports which were chosen for an additional evaluation of an unspecified number of similar documents. Of the sample of 21, 10 were found to contain photocopied QC inspector signatures on pre-weld fitup inspections. This finding was omitted from the audit report, and no explanation of the significance of this observation was offered. However, during discussion with licensee representatives on September 17, 1982, they stated that the NRC was not informed about this matter because these documents were not a part of the calibration program and also that no falsification of records was involved. Also, during the September 17, 1982 enforcement conference, the licensee stated that for the particular form in question, the QC approval is affixed to the form before it is sent to the field for inclusion of inspection data. This QC approval is for the checklist only and not the acceptance of the inspection data. The explanation for photocopied QC acceptance on about half of the sample was that QC sometimes copied the form (with approval) prior to sending it to the field, and apparently the copy (not the original) became completed. This matter is being referred to OI for further review. (Unresolved Item 373/82-40-04; 374/82-10-04)

- . Prior to the onset of the licensee audit the inspector determined that the weekly welding grid volt/amp surveillance records contained numerous deficiencies. This is an item of noncompliance and is discussed in paragraph 5.h.

MCCo representatives have stated that the volt/amp surveillance requirement requires "a few hours of work per week." Approximately ten QC inspectors have done this work for the past 350 weeks. No attempt was made by the licensee to check other QC work performed by these individuals since no falsification or alteration of records was involved. Furthermore, the surveillances are not a portion of the calibration program, and the finding was omitted from the audit summary results but included in Attachment A of the audit report.

The inspector asked the licensee to provide a list of work assignments accomplished by the QC inspectors involved in volt/amp surveillances. The licensee and MCCo supervision stated that records of such assignments were not kept, and that such a check would be time consuming. The inspector elected to check records of weld examinations using the dye penetrant method (PT) when he discovered that PT tests were recorded in a log which identified the QC inspector that performed each test. Several record discrepancies were identified. The details regarding the findings of this review are set forth in Paragraph 5.i.

The report of the licensee's audit dated July 8, 1982 did not identify such discrepancies in this type of documentation.

Based upon the above findings, the inspector noted that the objective of assurance based upon sample populations of 75 to 100 for each document type is not provided. During the September 17, 1982 meeting, the licensee supplied the NRC with information indicating the basis for their selection of record types and sample sizes. This information is shown in Attachments 3 and 4.

- e. The licensee was committed in item 7 of the CAL, to contact Region III immediately if problems were found as a result of the audit of the test and measurement equipments records (item 1) or the Morrison generated safety related QA/QC record types (item 4). The licensee stated to the inspector that the discrepancies noted were not reported to the NRC because the CAL refers to "false" QA/QC records, and that in their interpretation the problems described do not constitute false (that is, falsified) records. The inspector notes that the Weld Data Record photocopied QC approvals are identical to the concern which opened the MCCo QA document issue and was not reported to the NRC. The inspector also notes that the licensee had not notified the NRC of discrepancies in the audit report. The licensee has taken the position that compliance to the CAL of July 8, 1982 is lacking because the CAL was not received until after the audit was completed. Also, no response to the CAL was submitted because no response date was specified in the CAL. The inspector notes that (1) the CAL was reviewed with the licensee by telephone on July 1, 1982, and (2) was read to the licensee by the Deputy Regional Administrator in a meeting on July 2, 1982. It is also noted that the licensee has taken credit for wording in the CAL for not reporting findings to the NRC, and that, in some areas, CAL requirements are clearly reflected in the audit

report objective evidence. The inspection found that the licensee did not fully meet the requirements of the CAL and that the objective evidence did not fully support the audit report conclusion.

During the enforcement conference on September 17, 1982, the licensee presented information which indicates that, based on their interpretation, the requirements of the CAL had been met (Attachment 4). The licensee also presented information which indicates that while the information on discrepancies in the Weld Data records was not specifically addressed in the audit report summary, it was contained in the objective evidence of the audit.

Conclusions

The matter of traveler package documentation, particularly hanger travelers, has received extensive review by NRC mechanical experts over the past two years. However, with the questions raised during this inspection, these matters will be further pursued (Open Item 373/82-40-02; 374/82-10-02).

Following the receipt of the audit report from the licensee on July 9, 1982, Region III inspectors were sent to the site to perform an independent sampling audit of Morrison's QC records and to review some of the detailed data which supported the report findings. During this review the technical issues related to Morrison's activities were identified and resolved. However, during a followup review of the Morrison QA/QC records, concerns were raised regarding the quality of these records. In view of the discrepancies between the intent of the CAL and the CECO audit report, it was concluded that the audit report did not confirm the quality of the MCo QA/QC records. Therefore, additional inspections are planned to ensure that the quality assurance documentation adequately describes the as-built conditions at the LaSalle plant.

4. Assessment of Findings Described in Paragraph 3

The inspector evaluated results of inspection activities conducted for inspection report 50-373/82-35, licensee and AE studies of the engineering significance of volt/amp surveillance record discrepancies, the results of numerous inspections by the NRC in the construction area, and parallel quality assurance activities outside of the scope of work controlled by MCo (including QC work by CONAM, an independent Nondestructive Examination Contractor); the licensee's program resulting from Inspection and Enforcement Bulletin (IEB) 79-14, the engineering study performed by Teledyne, Inc., and licensee programs to verify that adequate "as-built" piping and support documentation is inputted to the AE for final stress analyses. The inspector also met with regional mechanical construction specialists to evaluate his findings with their previous observations. As a result of these evaluations, it was concluded that the overall quality of construction at the station is adequate, and that the observed quality deficiencies in the MCo documentation probably resulted from inability of the MCo documentation system to track the work accomplished by them. The demonstrated inability of the QA documentation to resist suspicion

of record fidelity, and to portray an accurate record of activities important to quality, will be pursued by the region during subsequent inspection (Open Item 373/82-40-03; 374/82-10-03).

5. Inspection of Potential Enforcement Findings Resulting From Inspection 50-373/82-35 (and Additional Findings Resulting From This Inspection)

a. Alleged Falsification of QA Documentation by MCCo

The matter of records containing photocopied approval signatures and data, data which does not represent actual data obtained, and altered data discovered during inspection 50-373/82-35 and this inspection has been forwarded to the NRC Office of Investigation for possible investigation. (Unresolved Item 373/82-40-04; 374-82-10-04).

b. Failure to Prepare and Implement an Adequate Program For Control of Measuring and Test Equipment (M&TE) For a Site Contractor (MCCc)

The inspector reviewed deficiencies identified during technical inspection 50-373/82-35, the confirmation of these adverse findings in the licensee audit report of July 8, 1982, and conducted an extensive appraisal of that portion of the MCCo and licensee organizations responsible for the QA areas in which M&TE discrepancies were observed.

It was found that MCCo had an organization chart which, when compared to the overall interpretation of regulatory requirements, including 10 CFR 50, Appendix B and ASME B&PV Code, Section III, 1974 met minimum acceptability levels. However, the entire MCCo quality organization consists of approximately 70 QC inspectors who report functionally to a single supervisor. Beyond this formal program, the QC organization is informally structured to contain assistants to the supervisor, lower tier supervisors, specialized QC functions, and auditors. The MCCo QA Manual assigns audit responsibilities to this QC group, but does not apply normally expected requirements for separation, independence, etc., to these audits. Instances were found when individuals audited their own supervisor, and any audit findings made within the site organization would be critical of the single site QC supervisor to whom all auditors report. The contractor's QA function exists entirely at the corporate level, and consists of one manager and one or two auditors. Instances were identified where individuals were borrowed from the site QC organization to assist in conducting audits of quality activities for which the same site QC organization is responsible. It is noted that although the program appears to meet the minimum QA organization requirements, the discrepancies noted above, indicate a weakness in the implementation of the contractor's QA organizational functions.

It was also noted that for three of four semiannual MCCo QA audits of the M&TE area:

- (1) Two of the audits consisted of six narrowly defined questions which were identical.
- (2) The third audit consisted of nine questions, six of which were identical with (1) above.

Although no criterion exists to define the number and scope of audit questions, it does not appear that the "comprehensive" requirement of Criterion XVIII of 10 CFR 50, Appendix B, is met by this approach.

Both the licensee and the contractors corporate QA organization conducted scheduled audits of the MCCo scope of work, including the M&TE area. Records of QA audits by MCCo indicate that, in some cases, records found to be deficient were included. It is concluded, therefore, that the licensee's assumption that the deficiencies went undetected for two or more years because auditors were not trained or directed to look for deficiencies such as missing data, missing review and approval signatures, arithmetic errors, out of tolerance values, and photocopied data and review/approval signatures is correct. The failure of the approved licensee and contractor QC and QA audit programs to detect inadequacies in the calibration program for torque wrenches, hydrostatic test pressure gauges, the torque wrench calibration transfer standard, the deadweight tester for calibration of hydrostatic test pressure gauges, the film densitometer for radiograph reading, gauge blocks, multi-point recorder, micrometers, linear measuring devices, verniers, levels, and ammeter, appears to be in noncompliance with 10 CFR 50, Appendix B, Criterion XVIII (see Paragraph j. below).

- c. Criterion XII of 10 CFR 50, Appendix B requires that measures be established to assure tools, gauges, instruments, and other measuring and test devices used in activities affecting quality 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 be implemented by their site QC organization to provide for these regulatory requirements. MCCo Procedure PC-31 provides the instructions for routine calibrations, calibration verification, periodic time requirements, record keeping requirements, and acceptance criteria for M&TE. The scope and content of Chapter 10 of the MCCo QA Manual and of Procedure PC-31 (and specific documents referenced by PC-31) were compared to official logs of M&TE in use. These requirements were also compared to the list of M&TE developed by the inspector by reviewing samples of documentation of work performed using the M&TE, and M&TE identified by observing actual work activities in the field. One or more of the following discrepancies were found to apply to ten different types of M&TE (including transfer calibration standards for torque wrenches, pressure gauges, and linear measuring devices; pressure gauges, levels, and micrometers).

. Equipment not addressed in procedures.

- . Equipment addressed but acceptance criteria either (1) not specified, or (2) improperly specified.
- . Equipment addressed (for example, need to calibrate and calibration frequency specified) but no instructions or reference to instructions (i.e., manufacturer recommendations) provided.

In addition to this finding it was determined by interviewing individuals who actually performed calibration activities that adherence to the procedures for performing calibrations was not uniform. It appears that in some cases individuals acted upon recommendations of manufacturers without causing the procedures to be changed to reflect the recommendations; and individuals improvised changes to certain procedures because, in their assessment, the procedures did not work; and individuals ignored certain requirements on the basis that they were cumbersome, time consuming, or more stringent than required to accomplish their intended purpose.

In many cases (especially torque wrench calibration) analyses by the licensee, his consultants, the NRC, and NRC consultants have confirmed that many of these arguments were correct. However, the practice of allowing individuals to arbitrarily disregard QA program procedures is contrary to the "defense in depth" principle resulting from following established procedures, which provide for input and evaluation by multiple individuals qualified in applicable technical and engineering concepts.

The observed procedural inadequacies, and the failure of the organization to use, revise, and evaluate the actual work is considered a non-compliance with the above regulatory requirements.
(373/82-40-05; 374/82-10-05)

- d. 10 CFR 50, Appendix B, Criterion XV requires that measures be established to control nonconforming materials or components to prevent inadvertent use or installation. Section QA-13 of the MCCo QA Manual, "Nonconformity Control and Corrective Action" implements the requirements of Criterion XV by instituting a system for labeling nonconforming materials and components and documenting the disposition of each case using Nonconformance Reports (NCRs). The above requirements were not referenced in procedure PC-31. As a result, NCR's were prepared for many items of M&TE found to be nonconforming, but numerous instances were identified where nonconforming items were hold tagged but NCRs were not issued. The inspector also noted that, in at least one instance, an item of M&TE was found nonconforming when calibrated in his presence, and an NCR was not completed. The matter was questioned and an NCR was prepared. Failure to include M&TE in the NCR program is considered to be in noncompliance with 10 CFR 50, Appendix B, Criterion XV. It is also considered a failure to comply with Criterion XVI "Corrective Action" because failure to implement the NCR program removes the assurance that adequate corrective action will be taken. The licensee confirms this finding in his audit report of July 8, 1982 (373/82-40-06; 374/82-10-06).

- e. 10 CFR 50, Appendix B, Criterion XVII, "Quality Assurance Records" requires that sufficient records shall be maintained to furnish evidence of activities affecting quality, including, at least, operating logs, results of reviews, inspections, tests, audits, monitoring of work performance, and materials analyses. The records shall also include closely related data such as, as a minimum, identity of the inspector or data recorded, the type of observation, the results, the acceptability, and the actions taken in connection with any deficiencies noted. Section QA-6 of the MCCo QA Manual provides requirements for receipt inspections which, if properly implemented, will provide records of the acceptability of materials and equipment received from outside of MCCo are acceptable. MCCo QA Manual QA-11 implements a program for identifying, recording, and storing quality related records. Contrary to these requirements, numerous instances were noted, where, for periods exceeding two years (from 1980 through 1982) data, signatures of performing individuals, and signatures of reviewing/approving individuals were either missing, inaccurate, or (for data) not representative of actual data, in that perfect data was recorded in lieu of actual data. Devices which were not adequately addressed in calibration procedure PC-31 (described above) consistently did not receive proper documentation of calibration activities performed. Inadequate procedures for receipt inspection resulted in records of calibration of the torque wrench calibration transfer standard which were not acceptable, because the calibration data was not within acceptable limits, for at least six records of semi-annual calibration. Additionally, no provisions existed for replacing or repairing lost or deficient records. The MCCo QA program also did not provide, nor was action taken, to assess the completeness of quality records. The licensee confirmed these findings in his audit report of July 8, 1982. These deficiencies appear to be in non-compliance with the QA requirements described above. (373/82-40-11; 374/82-10-11).
- f. Section 1 of the MCCo QA Manual was observed to commit MCCo to the quality requirements of Section III of the ASME Code, 1974 edition. A commitment was never explicitly made in this manual to comply with 10 CFR 50, Appendix B. The licensee, however, is committed to comply with Appendix B for the entire scope of safety related work at the project. A review of the licensee's records demonstrated that the method of meeting this commitment was to perform a series of periodic QA audits of MCCo, and to then ascertain compliance with Appendix B requirements, and take corrective actions when discrepancies were noted. The review revealed that the standard audit checklist for demonstrating conformity with Appendix B was not implemented until approximately 1978. From 1978 until present a continuing audit process has been applied to increase conformity to Appendix B requirements as implemented by the licensee's QA Manual.

Following the inspection, the inspector compared the inspection findings to the 1974 edition of Section III, ASME B&PV code (for those activities addressed by the inspection). The comparison identified a sufficient number of deviations from code requirements. These deviations will be discussed with the LaSalle County Station Authorized Inspector (AI) and the appropriate actions will be taken. (Open Item 373/82-40-08; 374/82-10-08).

- g. 10 CFR 50, Appendix B, Criterion VI, "Document Control" requires that measures be established to control the issuance of documents, such as instructions, procedures, and drawings, including changes thereto. Contrary to the above MCCo Welding Procedure P8-18LS was revised on November 21, 1980 (Revision 4), and the revision was not included in the acceptance criteria of MCCo Procedure for welding Volt/Amp Surveillance (MCCo Form PC-84) as late as June, 1982. Additionally, Drawing #21N-48, revision B was approved and issued for construction on February 23, 1982, and still required revision 3 for the control of welding. This appears to be in non-compliance with 10 CFR 50, Appendix B (373/82-40-09; 374/82-10-09).

Successful NDE records of the welding performed, and a technical evaluation of the differences between revisions 3 and 4 support the licensee's assessment that the welding is of acceptable quality.

- h. 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 MCCo program to comply with these requirements, procedure PC-41, Revision 0 was issued. Procedure PC-41, Revision 0 requires that a surveillance of the voltage and amperage applied in the placement of welds in safety related items be within the prescribed limits of the applicable welding procedure. The NRC sampled approximately seven random weekly surveillance records (of a total population of approximately 350 records).

Examples of improper data including missing data out of tolerance data which was reviewed and accepted, use of wrong acceptance criteria, improper procedure references (or revision references) and missing signatures were identified. The licensee reinspected 100% of these document and identified 199 examples of such improper data in the total population of 350. This appears to be an item of noncompliance. Instances where the deficient data raised a concern of weld quality were analyzed by the licensee and reviewed by the inspector. The results of the analyses in addition to adequate results of records of weld NDE support the licensee's assessment that the quality of the welds is acceptable (373/82-40-10; 374/82-10-10).

- i. As a part of the program for compliance with the regulatory requirement identified in h. above, the licensee had implemented a program for the NDE of welds which are important to safety. Portions of the program (visual examination, VT, and dye penetrant test, PT) are implemented by MCCo. Portions of the VT and PT are implemented by an independent contractor, in addition to all RT (Radiographic Examination), UT (Ultrasonic Testing, and MT (Magnetic Particle Testing). During the evaluation of the conduct of three PT tests it was found that MCCo QC had performed their final installation acceptance of piping support RH03-2895C (Drawing M939-2) on June 23, 1982. The installation drawings required that a weld in the assembly be evaluated by PT or MT. The requirement was not completed at the time of final acceptance, nor had the omission been detected prior to the inspection finding on August 24, 1982. Additionally, the PT test being evaluated (Test #9657) was not conducted until August 24,

1982 (after final installation acceptance), and the requirement for it was not documented in the installation or design documents. Further evaluation identified the fact that the missed NDE testing could be omitted without violating accepted industry practice. Although this fact supports the contention that the constructed adequacy of the support is probably acceptable, the program for assuring constructed adequacy did not function as intended. This appears to be a noncompliance with the above regulatory requirements. (373/82-40-11; 374/82-10-11).

The matter of final quality control acceptance of the hanger assembly 2 months prior to the conduct of PT test #9657 was resolved when the licensee determined that the PT was performed to demonstrate the adequacy of the base metal in the area where the hanger was installed prior to relocating it to its present position. The licensee's position is that the PT test was not required to specifically verify the adequacy of the hanger in its new location. MCCo QC informed the inspector that no formal tracking or verification technique exists to assure that such "after the fact" testing requirements are performed (as opposed to get misplaced, etc.).

During the enforcement conference held on September 17, 1982, the licensee informed the inspector that a further evaluation of the circumstances surrounding PT test #9657 was conducted, and that it now appears that the test was tracked and recorded for the wrong pipe support. This corroborates the need for a tracking system for rework PT requirements.

The above appears to be in noncompliance with 10 CFR 50, Appendix B, Criterion XV which requires that nonconforming items shall be reviewed and accepted, rejected, repaired, or reworked in accordance with documented procedures (373/82-40-12; 374/82-10-12).

Six other randomly selected PT requests were checked to ascertain whether or not testing was accomplished in a timely manner. All appeared timely except one test for traveler W-RI-1027, which was conducted as a result of NCR #1071 (which was written as a result of a finding surfaced by the Teledyne study). Although the test was timely, the documentation contained no reference to NCR #1071 or the Teledyne study, and verification of the circumstances could be established only by memory of the construction personnel involved.

- j. 10 CFR 50, Appendix B, Criterion XVIII requires that a comprehensive system of audits be carried out to verify compliance with all aspects of the quality assurance program. The inspector evaluated the existing quality assurance audit programs (including the audit requirements of Chapter QA-14 of the MCCo QA Manual) as it pertains to the types of findings uncovered during inspections 80-35 and this inspection. This evaluation is considered important in evaluating the cause of identified problems because the poor record keeping practices observed often persisted for periods of two to three or more years without being detected or corrected. It was noted that, particularly for contractor audits, the same audit questions were consistently asked during semi-annual audits of the M&TE programs. Although

regulatory requirements do not specifically require how many or what type of questions to ask during an audit, the inspector did point out to the licensee that the audit questions were often identical for M&TE audits, and that the audits appeared to focus more upon whether or not paperwork existed (as opposed to quality of documentation, and the ability of documentation to interface with other portions of the work accomplished and provide a record of action taken).

The failure of the audit program to identify the types of record deficiencies identified appears to be a violation of the requirements of Appendix B, Criterion XVIII (373/82-40-13; 374/82-10-13).

The inspector also notes that it is common practice for the licensee to notify contractors a week or more in advance of scheduled QA audits of their activities. Such notifications often identify the precise portions of the contractors program which are to be audited. The concern exists that this practice may detract from the ability to provide "assurance through evaluation of random samples," which is the stated basis upon which the licensee's audit program functions (Open Item 373/82-40-14; 374/82-10-14).

- k. On June 18, 1982, while investigating an allegation of MCCo torque wrench calibration record falsification (Section X of Inspection Report No. 50-373/82-35), an inspector found two of the four bolts securing the motor operator to the yoke loose (not even hand tight) on a Main Steam Line Drain Isolation Valve (1B21-F016) located inside containment. The mechanical joint checklist provided by MCCo (BU-3103) indicated that these bolts had been torqued to 50 ft.-lbs. by two mechanics and verified by their supervisor. The mechanical joint checklist also indicated that the bolts were verified to be torqued to the required value by a MCCo QC inspector on the same day.

The inspector checked with the CECO maintenance group and verified that no work requiring removal of the motor operator had been performed since the date on the MCCo mechanical joint checklist. Subsequent to this finding, the licensee was requested to perform a check of all easily accessible (i.e., no insulation removal required) safety related valves both inside and outside containment. A total of fifty valves were checked. In addition, as a result of this finding, the licensee was required to verify the integrity of all bolted joints relating to the operability of safety-related air and motor operated valves. Further details on this are contained in Inspection Report No. 50-373/82-35, Section X.

The failure to accomplish the installation of the valve operator in accordance with a written and approved instruction is considered to be an item of noncompliance with 10 CFR 50, Appendix B, Criterion V and the failure of the MCCo QC inspector to detect this deviation from a requirement specifying quality is considered to be an item of noncompliance with 10 CFR 50, Appendix B, Criterion X (373/82-40-16).

1. In interviewing selected personnel responsible for preparing, reviewing, observing, implementing and approving the actual QC procedures, activities, and documentation the inspector noted that the majority of them provided different explanations of the significance or purpose for signing a record when acting in the capacity of a Level I, II, or III inspector (as defined in ANSI N45.2.6). The licensee is committed to maintain a qualification inspection program which meets the requirements of N45.2.6 for individuals performing QC activities of the type discussed in this report. A sample of training and certification records was checked. It was determined that training in regard to the requirements was formally implemented after about 1979. No specific documentation of training in regard to certifying a document by signing as a Level I, II or III inspector was available.

Further interviews with QC inspectors resulted in statements which gave conflicting criteria for signing as a Level I, II or III from the same individual. For example, one individual felt that his review and approval of a calibration data sheet for the torque wrench calibrator or a hydrostatic test pressure gauge as a Level II signified only that a record had been completed. However, he felt that, when a volt/amp surveillance was signed by a Level II, it meant that the document was reviewed and accepted for technical and administrative requirements, and approved. The failure to implement the responsibility and authority requirements of N45.2.6 appear to be an item of noncompliance with 10 CFR 50, Appendix B, Criterion II (373/82-40-15; 374/82-10-15).

No additional items of noncompliance were noted.

6. Corrective Actions Taken by the Licensee Prior to Exit Interview

The licensee has taken additional steps to remedy the causes of the identified adverse findings in addition to the corrective actions taken by the licensee and described in paragraphs 1 through 5 of this report.

- a. Page 11 of the licensee's audit report of July 8, 1982 requires that MCCo respond, in writing, to the audit findings by July 23, 1982. Several corrective actions to observed deficiencies were taken or planned (pending NRC concurrence for implementation) by that date. MCCo additionally responded to numerous NRC concerns passed on to them by the licensee in a letter dated August 27, 1982.
- b. MCCo Procedure PC-31 (for calibration of M&TE) was revised, and procedures were prepared and reviewed to provide for improved document control, including repair of lost or deficient documents. Implementation of these procedures was delayed as a result of the Region III requirements to preserve the MCCo documents in their "as is" condition until inspection of these records is completed. On August 13, 1982 the Region III reviewed the need for the licensee to continue posting a guard on the MCCo file room to guarantee the conditions of the records.

The licensee was authorized to remove the guard on August 16, 1982, and Region III granted authorization to the licensee to implement the new procedures.

- c. MCCo purchased a new digital torque wrench calibration device, and additionally re-evaluated torque wrench calibration acceptance criteria and revised them to values which were compatible with physical limitations of the calibration process.
- d. The licensee informed the inspector that a team of QA auditors was trained and briefed in the type of deficiencies noted by Region III, and that audits of other site contractors were begun to ascertain whether or not similar problems exist with documentation supplied by other site contractors. The licensee has committed to audit all contractors at all nuclear construction plants by the end of 1982.

The inspector concurs that these corrective actions by the licensee will provide added assurance of an adequately implemented quality assurance program. However, considering the shortcomings discovered in the July 8, 1982 report of MCCo audit, the concern exists that documentation problems may still exist (either within MCCo or with other contractors) that will escape identification by the QA audits. In response to this concern, additional inspection effort will be performed to determine the adequacy of QA records at the site.

7. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of non-compliance or deviations. Unresolved items disclosed during this inspection are discussed throughout this report.

8. Exit Meetings

a. Meeting of August 20, 1982

A preliminary exit meeting was held on August 20, 1982 to discuss the inspection findings as they appeared at that time. The majority of the findings described above were described in general details.

b. Meeting of August 27, 1982

A final exit meeting was held on July 27, 1982. The licensee acknowledged the inspection findings with the exception of the findings relating to NDE results and weld and pipe support traveler packages, which the inspector identified as matters which were to be discussed with Regional Specialists before being dispositioned. The inspector informed the licensee that the NRC would be pursuing the matter of apparent document falsification through its Office of Investigation. The inspector also informed the licensee that the facts surrounding differences between the July 8, 1982 CAL and his audit report of July 8, 1982, and inspector findings which

differed from the conclusions stated in the July 8 audit report, would be referred to Regional Management for dispositioning. The licensee was furthermore informed that the inspector's recommendation to Regional Management was that these matters be the subject of an enforcement conference to be held in the near future.

c. Enforcement Conference of September 17, 1982

The licensee presented his response to the inspection findings discussed in the exit meeting, and additional discussions of findings in regard to the July 8, 1982 audit report, and the licensee's actions in response to the July 8, 1982 CAL, which occurred during telephone calls with Regional management. Individual responses to findings are addressed with the discussion of each finding in the body of this report. During this meeting the licensee presented the basis for the record types that were selected for their audit. The list of these record types is set forth in attachment 3. The licensee also presented information as to how their audit met the requirements of the CAL. This information is contained in attachment 4. Region III has reviewed this information and has no further question with regard to the record types and sample sizes audited. However, because of the concerns raised regarding the quality of the MCCo construction records, the Region plans to conduct additional inspections in this area.

Attachments:

1. Confirmatory Action Letter
dtd 7/8/82
2. Supplement 1 of CECo Audit
of MCCo dtd 8/4/82
3. Record Types Reviewed as part
of CECo Audit
4. CECo Compliance w/Confirmatory
Action ltr dtd 7/8/82



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

JUL 8 1982

Docket No. 50-373
Docket No. 50-374

Commonwealth Edison Company
ATTN: Mr. Cordell Read
Vice President
Post Office Box 767
Chicago, IL 60690

Gentlemen:

This refers to the telephone discussion between Mr. G. Marcus and others of your staff and Mr. I. N. Jackiw of this office on July 1, 1982, regarding the Commonwealth Edison Company audit of the Morrison Company. Based on this discussion our understanding is that you will:

1. Conduct an audit of 100% of the Morrison Company QA/QC records for test and measurement equipment. The audit shall be conducted by auditors who did not perform previous licensee audits in this area.
2. For any potential false QA/QC records found in Step 1, determine the QA/QC inspectors involved and determine all areas inspected by these QA/QC inspectors.
3. Perform a 100% audit of all work done by the QA/QC inspectors identified in Step 2.
4. Perform an audit of all Morrison generated safety related QA/QC record types. The sample size for each record type shall be 75 to 100 individual records and shall be representative of the record population.
5. Determine the individuals from the Commonwealth Edison Company QA department who have audited the Morrison Company measuring and test equipment QA/QC records, and determine what they looked at specifically and why they did not identify problems that exist with the Morrison Company QA/QC records.

ATTACHMENT 1

8207130430

CONFIRMATORY ACTION LETTER

Commonwealth Edison
Company

- 2 -

JUL 8 1982

6. Based on the findings in Item 5 above, perform an indepth audit of any areas inspected by personnel who did not detect the Morrison problems.
7. Notify NRC Region III immediately if problems are found as a result of Items 1 and 4. Also, take the appropriate corrective actions to resolve these problems. For example, if it is determined that an uncalibrated torque wrench was used, all bolts affected by this wrench shall be retorqued.

Please let me know immediately if your understanding differs from that set forth above.

Sincerely,

Original signed by
A. Bert Davis

James G. Keppler
Regional Administrator

cc: Louis O. DelGeorge, Director
of Nuclear Licensing
R. Cosaro, Site Construction
Superintendent
T. E. Quaka, Quality
Assurance Supervisor
R. H. Holyoak, Station
Superintendent
B. B. Stephenson
Project Manager
DMB/Document Control Desk (RIDS)
Resident Inspector, RIII
Mary Jo Murray, Office of
Assistant Attorney General

1/24-111
12/10/81

QUALITY ASSURANCE MANUAL

AUDIT REPORT

Supplement #1

G.O. Audit of Morrison Construction Company
LaSalle Project

Type Audit: Program Audit Product Inspection Point
 Records Special

To: J. Hamilton, Morrison Construction Company - Project

Project LaSalle Visit Date 8/2-4/82 Report Date 8/4/82

System N/A Component Identification N/A

Material Description N/A

Vendor Morrison Construction Co. Location LaSalle

Subcontractor N/A Location N/A

Contacts See Report

P.O. No. 181110 Spec. No. J-2530

Recommended Inspections: ~~6 mos~~ ~~3 mos~~ ~~1 mo~~
Other: As Scheduled

Notes: This supplement is being issued to document additional records review pursuant to NRC Confirmatory Action Letter (Item #3) dated 7/8/82, J. Keppler to C. Reed.

Auditor RA Bran for K.J. HANSING Date 8/9/82

Reviewed Tom (Cable) Date 8/9/82

cc: Manager of QA
~~Exec. VP~~
~~VP Engineering~~
~~VP (Manufacturing)~~
~~VP (Construction)~~
Manager of Projects
~~Director of QA~~

Director of QA (Engr-Constr)
Site Constr. Supt. ~~VP~~
~~VP~~
Site Quality Assurance
Project Manager
Project Engineering Mgr.
~~(Site Construction)~~
Auditee Lead Auditor

August 4, 1982

GENERAL OFFICE QUALITY ASSURANCE DEPARTMENT

AUDIT OF MORRISON CONSTRUCTION COMPANY CALIBRATION ACTIVITIES

(SUPPLEMENTARY OBJECTIVE EVIDENCE)

As a result of the NRC Inspection report dated July 19, 1982, regarding allegations at LaSalle, a review was performed on 100% of MCCo Unit #1 and common quality records identified as being generated by the individual who generated records which were previously found to be suspect. This review included approximately 1800 records from the following record types:

1. Receiving inspection reports
2. NCR's
3. Equipment installation records
4. Heat treatment records
5. Purchase requisitions
6. Pipe Test Memos

This extended review supported the conclusion stated in the original audit report that the generic documentation problems identified in the calibration area are isolated to that record type, (i.e. photocopied signatures on forms & repetitive data), as these problems were not evident in this review.

This review identified, as in the original audit, that changes to information on records was made by use of white-out and also by crossing out information and rewriting. Since no specific guidelines were established at the site regarding changes to documents until February 1982, this practice was considered acceptable. Isolated instances were observed where information was omitted or incomplete, but this problem was not wide spread.

To gain a high confidence level that all records generated by the suspect individual were reviewed, samples of the following record types were examined for involvement by the suspect individual:

1. Mechanical Revision Directives
2. Mini-Spec's
3. ANI Hold point reports
4. Certified Engineering Organization Drawings
5. Ferrite Test Results
6. Forming & Bending Procedure Qualifications
7. Inspection Reports for stored items.

This review identified no instances where the suspect individual had involvement in the generation of any of these documents. A few instances were noted where he did sign approval on items #3 & 4 but had no input in the generation of the documents. Item #3 is filled out by the ANI and the MCCo signature signifies concurrence. Item #4 is generated by the Architect/Engineer and the MCCo signature signifies issuance for construction.

Based upon this review, no problems were identified involving records generated by the suspect individual that were deemed to have adverse impact on plant construction.

Personnel Contacted:

M. Wherry	MCCo	QC Supervisor
D. Kanakares	MCCo	QC Inspector
D. Kozlowsky	MCCo	QC Inspector
P. Granby	MCCo	QC Inspector
J. Bitner	MCCo	QC Inspector

Auditors :

K. J. Hansing	Byron	QA Supervisor - Lead Auditor
S. M. Jaquez	Braidwood	QA Engineer - Auditor
E. A. Kram	Braidwood	QA Engineer - Auditor - Data Taker
G. M. Maksimuk	LaSalle	QA Engineer - Auditor - Data Taker
A. M. Montalto	LaSalle	QA Inspector - Auditor - Data Taker
R. C. Bare	LaSalle	QA Inspector - Auditor - Data Taker
D. A. Sible	LaSalle	QA Engineer - Observer
R. F. Smeets	LaSalle	QA Engineer - Observer

0111A

Areas of QA/QC Morrison Records to be reviewed as part of CECO G.O. Audit.

1. Calibration
 - a. Pressure gauges
 - b. Temperature Indicators
 - c. Micrometers
 - d. Linear Measuring devices
 - e. Dial Indicators
 - f. Torque Wrenches
 - g. Precision Level

2. QC Inspection Reports
 - a. Travelers and work packages
 - b. NDE reports
 - c. QC surveillances
 - d. On Site Audits
 - e. Nonconformance and Deficiency reports

3. Procurement Documents
 - a. Purchase Requisitions
 - b. Receipt Inspection

4. Qualification of Personnel
 - a. Welder qualifications
 - b. QC Inspectors
 - c. Calibration personnel

0047L

9/17

Commonwealth Edison Compliance
N.R.C. Confirmatory Action Letter Dated 7/8/82

CAL

1-A) 100% Review of Morrison Calibration Records

See Audit Report, page 7, paragraph 3, "Assessment of Audit Questions 17-22. Also, Attachment "A," page 4, Finding 6 and Audit objective evidence, pages 224-243, 253-263 and 336-418, which demonstrates that an audit was conducted of 100% of the available Morrison Co. Q.A./QC records for test and measurement equipment.

1-B) Audit by Independent Auditors

See Audit Report, page 2, "Audit Team" which shows how independent auditors were used to perform this audit

2) Identify Q.A./QC Inspectors and Areas Work if Indications of Potential False Records Exits

See Audit Report, page 8 & 9 and Audit Supplement #1 dated August 4, 1982, which concludes that only one Morrison person was associated with potential falsification of records.

3) Perform 100% Audit of all Work Done by Inspector in Item (2) Above

See Audit Report, page 8 and Audit Supplement #1, dated August 4, 1982, which together show that 100% of records work done by this identified inspector was audited.

4) Audit All Morrison Q.A./QC Records Types

See Memo of July 1, 1982 Conference Call and Memo dated 7/2/82 describing four areas of Morrison QC Records to be audited. These documents identify the areas of QA/QC Morrison Records to be reviewed as part of CECO G.O. audit and was agreed to by NRC at the 7/2/82 NRC meeting.

See Memo Titled "G.O. Audit of MCCo Q.A./QC Records," dated 9/16/82 which identifies the pages in the audit objective evidence where all of the records listed in the 7/2/82 memo above were audited.

5 & 6 Identify Edison Auditors Who Previously Audited the Morrison Records and Failed to Find the Problems and then Re-audit Their Work.

See Audit Report, page 6 for general explanation and Audit objective evidence pages 3-9.

This information identifies the Edison auditors who performed previous audits of Morrison calibration activities and also explains Edison's position regarding this type audit function not being tuned to identifying these specific documentation type problems. The specific identification of individuals by name was discussed on 7/2/82 during the general meeting and again after the meeting between Messrs. Shewski & Davis and we were told that it was not the intent to specifically identify the auditors by name to NRC.

7) Notify NRC of Problems found in (1) and (4) above.

On July 2, 1982, a meeting was held at Region III where G. Marcus gave a preliminary report of all items found during the audit.

On July 9, 1982, the CE Audit Report was given to the NRC identifying all problems found during the audit.

On July 12, 1982, the CAL was given to CECO.

On July 13, 1982, Edison informed the NRC by telephone of progress in evaluating work performed with equipment found to be out of calibration.

During the Supplemental Audit of 8/2-8/4, no new items requiring field work were identified.

9/16/82

G.O. Audit of MCCo QA/QC Records

Verification of sample size on record types:

1) Calibration records - 100% review of all MCCo calibration records on file. Objective evidence on pages 224-243, 253-263 & 336-418.

2) QC Inspection Records

(a) Travelers & work packages - 120 reviewed and documented in objective evidence on pages 264-275 & 282-284, 293-295. Additionally approximately 135 were reviewed and documented in objective evidence to Supplement 1 of audit report.

These correspond to items b, c, d, and h of audit report, pages 7 and 8.

(b) NDE reports - 89 reviewed and documented in objective evidence on pages 315-318 and 273-275.

This corresponds to item k of audit, page 8.

(c) QC surveillances - 75 reviewed and documented in objective evidence on pages 301-305.

This corresponds to item l of audit, page 8.

(d) On-site audits - 75 reviewed and documented in objective evidence on pages 310-313.

This corresponds to item m of audit, page 8.

(e) Nonconformances and Deficiency Reports - 81 reviewed and documented in objective evidence on pages 287-291. Additionally, approximately 100 were reviewed and documented in objective evidence to Supplement 1 of audit report.

This corresponds to item f of audit, page 8.

3) Procurement Documents

(a) Purchase Requisitions 75 reviewed and documented in objective evidence on pages 306-309. Additionally, approximately 200 were reviewed and documented in objective evidence to Supplement 1 of Audit report.

This corresponds to Item n of audit, page 8.

- (b) Receipt Inspections - 88 reviewed and documented in objective evidence on pages 276-281. Additionally, approximately 450 were reviewed and documented in objective evidence to Supplement 1 of audit report.

This corresponds to item a of audit, page 7.

4) Qualification of Personnel

- (a) Welder qualifications - 75 reviewed and documented in objective evidence on pages 319-322.

This corresponds to item o of audit, page 8.

- (b) QC Inspectors - 98 certifications for 44 QC personnel were reviewed and is documented in objective evidence on pages 323-329. This represented all QC personnel certifications.

This corresponds to item p of audit, page 8.

- (c) Calibration personnel - 6 reviewed and documented in objective evidence on pages 330 and 421-424. This represented all calibration personnel.

This corresponds to item q of audit, page 8.