Enclosure

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76011

MAY 24 1985

Docket: 50-382
EA 85-10

Louisiana Power & Light Company
ATTN: R. S. Leddick, Sr. Vice President
Nuclear Operations
142 Delaronde Street
New Orleans, Louisiana 70174

Gentlemen:

In 1983 the NRC began to receive allegations that related to the adequacy of the Louisiana Power and Light Company (LP&L) Quality Assurance Program at Waterford 3 Steam Electric Station. Several inspections were conducted by the NRC to review and evaluate the issues associated with these allegations. Other routine and special safety inspections were also conducted as part of the NRC Inspection Program. In June of 1983, the NRC Inquiry Team was formed to gather information relating to the allegations that were received (Reference NRC Inspection Report 50-382/84-34 and NUREG 0787, Supplement 7). In February and March of 1984, the NRC Construction Appraisal Team (CAT) conducted an inspection to evaluate the construction activities at the Waterford facility (Reference NRC Inspection Report 50-382/84-07). In April of 1984, the NRC Waterford Task Force began an on-site review of the issues that were relevant to the Quality Assurance Program (Reference NUREG 0787, Supplement 7 and NRC Inspection Reports 50-382/84-24 and 50-382/84-32). As a result of these efforts potential violations of NRC regulations were identified and forwarded to NRC Region IV for disposition. The review of the issues and potential violations is documented in NUREG 0787, Supplements 7 and 9 and in NRC Inspection Reports 50-382/84-30 and 50-382/84-43 and 50-382/84-45. As was discussed with you, we have not held an Enforcement Conference for these specific violations since the violations have been discussed with you in numerous oral and written communications and your views on the issues have been provided.

This enforcement package is unusual in that it encompasses violations identified during a major NRC effort involving more than fifty NRC personnel and contractors over nearly a year (approximately 20,000 manhours). It is also unusual in that it is being issued after the results of the NRC review, inspection, and evaluation of these allegations and related issues have been extensively documented. The NRC recognizes that the violations identified in the enclosed Notice of Violation and Proposed Imposition of Civil Penalties occurred at various times during the multi-year construction phase of your facility and that their correction has required aggressive action on your part. However, each of these violations illustrates weaknesses that existed in LP&L's implementation of its Quality Assurance program during construction. Although these violations do not appear to have led to an end-product of unacceptable quality, the violations are of concern to the NRC because your responsibility for quality assurance does not end with the receipt of an operating license. Rather, you are responsible for

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ensuring that an adequate quality assurance program continues to function now that Unit 3 is operating.

To emphasize the significance of the weaknesses in your quality assurance program that were discovered during these intensive inspections and investigations and to ensure that these weaknesses are not carried over to your operational quality assurance programs, and after consultation with the Director, Office of Inspection and Enforcement, I have been authorized to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalties in the amount of One Hundred Thirty Thousand Dollars ($130,000) for the violations described in the enclosed Notice. The violations have been categorized as a Severity Level III problem in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 49 FR 8583 (March 8, 1984). In determining the civil penalty amount we have considered when the violations occurred, the duration of the violations, the potential safety significance of the violations, the existence of prior notice of many of these violations, and the fact that many of the violations contain multiple examples. The cumulative civil penalties for all of the violations are distributed equally among the violations.

You are normally required to respond to the enclosed Notice within 30 days. However, because of the extensiveness of this package we are extending the period for response to 60 days. Your response should follow the instructions contained in the Notice and should be directed at the following three areas: first, you should confirm the completeness of the actions you have taken to correct the examples cited in the violations; second, you should address how you have changed or strengthened the implementation of your quality assurance program and implementing procedures so that there will not be similar violations in these subject areas during future modification or maintenance activities; and third, since the enforcement action deals with weaknesses in your program for assuring quality in the approved LP&L Quality Assurance program for construction, you should describe the steps you have taken to ensure that a similar process failure in the LP&L Quality Assurance program for operations will not occur, and that continuing attention by management will be provided to prevent recurrence of these failures. Your responses to these three areas may be submitted separately and you may reference previous submittals where appropriate. In addition, you are also requested to respond to the enclosed Notice of Deviation.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosure will be placed in the NRC's Public Document Room.

The responses directed by this letter and accompanying Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

Sincerely,

Robert D. Martin
Regional Administrator

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty

cc w/enclosure:
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NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTIES

Louisiana Power & Light Company
Waterford 3 Steam Electric Station

Docket 50-382
License NPF-38
EA 85-10

During 1983 and 1984, the NRC conducted numerous inspections and investigations at the Waterford 3 Steam Electric Station. As a result of these inspections and investigations, numerous violations of NRC requirements were identified. These findings have been grouped into thirteen distinct areas. Each of the violations illustrates weaknesses in LP&L's implementation of its quality assurance program. Although these violations do not appear to have led to an end product of unacceptable quality, the violations are of concern to the NRC. To emphasize the significance of the weaknesses in your quality assurance program that were discovered during these intensive inspections and investigations, and to ensure that these weaknesses are not carried over to your operational quality assurance programs, and after consultation with the Director, Office of Inspection and Enforcement, I have been authorized to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalties in the amount of One Hundred Thirty Thousand Dollars ($130,000). In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, as revised, 49 FR 8583 (March 8, 1984), and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2282, PL 96-295, and 10 CFR 2.205, the particular violations and associated civil penalties are set forth below. The detailed underlying documentation for each of the violations is contained in NUREG 0787, Supplement 7 and 9 and in NRC Inspection Reports 50-382/84-07, 84-24, 84-32, and 84-34 and the pertinent sections of these documents are referenced below.

I. Failure To Take Adequate Corrective Action

Criterion XVI of 10 CFR 50, Appendix B requires that measures be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition.

Louisiana Power and Light (LP&L) Quality Assurance (QA) Manual Section QR 16.0, Revision 2, "Corrective Action," paragraph 16.3, requires, in part, that LP&L and its major contractors implement procedures for correction of significant conditions adverse to quality which include determining the cause(s) of the significant adverse conditions,

taking prompt corrective action to prevent repetition of the adverse conditions, and documenting and reporting the adverse conditions along with their determined cause(s) and corrective actions to appropriate levels of management for review and assessment.

Contrary to the above:

A. LP&L failed to adequately determine the cause and extent of the partial QA breakdown between Ebasco and Mercury as described in NRC Inspection Report No. 50-382/82-14, issued December 6, 1982. Specifically, LP&L failed to implement comprehensive and periodic audits of the Mercury and Ebasco QA program after identifying the partial QA breakdown. This failure is illustrated by the the fact that LP&L did not identify the following Mercury and Ebasco Company QA audit deficiencies that existed prior to December 6, 1982, and continued until Mercury's departure from the site in 1984.

Mercury Company had not audited Mercury Quality Assurance Manual (QAM) Section 5 from 1978 through 1982; QAM Sections 12, 17, and 18 in 1980; and QAM Sections 12, 14, and 16 in 1981. Even though Ebasco identified these deficiencies in Audit No. SW-82-6-1, previous Ebasco Audits NB-78-9-5, NB-80-8-3, and NB-81-5-1 of Mercury did not identify these deficiencies. The NRC staff discovered that Mercury had not audited QAM Sections 5, 11, 12, 13, 14, 15, and 16 in 1983. Secondly, Mercury Company had not audited the following Mercury Company Procedures during the life of the project: MCP-2140, 2170, 2175; SP-650, 651, 652, 653, 654, 655, 656, 657, 658, 661, 662, 663, 668, 670, 672; WPS-B, P, G; B-1; and WPS-WE-4. Ebasco Audit SW-82-6-1 does document the finding that Mercury procedures had not been audited up through 1982.

Ref: NUREG-0787, Supp. 7, "Safety Evaluation Report Related to the Operation of Waterford Steam Electric Station Unit No. 3," Allegation No.48 (SSER 7:A-48)

B. LP&L failed to take adequate actions to address concerns identified in the Notice of Violation issued on April 13, 1985 and described in NRC Inspection Report No. 50-382/83-13 which identified heating, ventilation, and air conditioning (HVAC) supports that had additional loads attached that were not shown on detail drawings. In addition, the allowable load capacity calculations were not performed for the additional loads. Even though LP&L responded to this violation on May 17, 1983, and corrective action was initiated, a subsequent inspection by the NRC revealed that 18 electrical cable trays and HVAC supports carried loads not shown on detail drawings. Six cable tray supports contained loads in excess of the stated allowable with no evidence of the required engineering analysis.

Ref: NRC Construction Appraisal Team (CAT) Report No. 50-382/84-07, Section VIII.B.4 (CAT: Section VIII.B.4)

C. LP&L failed to take adequate corrective actions to address concerns identified in the Notice of Violation issued on October 14, 1981 and described in NRC Inspection Report 50-382/81-23 which identified problems with the care and maintenance of station batteries and safety-related motors. Even though LP&L responded to this violation on November 13, 1981, and corrective action was initiated, a subsequent Notice of Violation was issued in NRC Inspection Report 50-382/82-05 on April 7, 1982 regarding the maintenance of safety-related motors. Notwithstanding, a subsequent inspection by the NRC identified that LP&L was still not maintaining electrical motors in accordance with the required preventative maintenance procedures for equipment transferred to plant operations.

Ref: CAT, Section VIII.B.4.

D. LP&L failed to take adequate actions to correct two Significant Construction Deficiencies (SCD) 73 and 78 which they issued on April 11, 1983, and April 28, 1983, respectively, to address welding deficiencies by American Bridge in the Reactor Containment Building and the Reactor Auxiliary Building. A comprehensive reinspection program was initiated by LP&L and rework has been completed. A subsequent inspection by the NRC of approximately 380 welds fabricated by Peden Steel Company, which was an American Bridge subcontractor, revealed several welds which did not meet the specified acceptance criteria.

Ref: CAT, Section VIII.B.4.

E. LP&L failed to take adequate corrective actions to address concerns identified in the Notice of Violation issued on April 13, 1983 and described in NRC Inspection Report 50-382/83-13, which identified the lack of acceptance criteria for potential clearance problems between piping and adjacent structures. Even though LP&L responded to this violation on May 17, 1983, and corrective action was initiated, a subsequent inspection by the NRC identified several instances where clearance between piping and adjacent structures did not meet the criteria specified in Design Change Notice (DCN) NY-MP-804. Twelve selected piping isometric drawings were reviewed for approximately 1000 feet of Class 2 and 3 piping and inspected for conformance to design requirements.

Ref: CAT, Section VIII.B.4.

F. Significant Construction Deficiency (SCD) 70 was issued on February 18, 1983, to address deficiencies with General Electric (GE) 480-V switchgear trip coils not dropping out after tripping. The licensee reported by letter to the NRC dated December 2, 1983 (W3K83-1881) that all corrective action and testing had been completed and NCR No. W3-5737 had been closed. The NRC inspector

reviewed NCR No. W3-5737 and determined that the breakers included in the NCR had in fact been rexamined and modified. However, the licensee failed to follow through on corrective action to modify three breakers that were not included in the above NCR. Thus, the wiring changes specified in DCN 1425R2 had not been incorporated. These breakers are as follows:

Cabinet	Cubicle
3B31	6C
3B31	7B
3A31	7B

Ref: NRC Inspection Report No. 59-382/84-24, paragraph 2.C.

G. LP&L failed to take adequate corrective actions in response to the Notice of Violation issued on August 13, 1984 and described in NRC Inspection Report 50-382/84-32 which identified that the licensee had not implemented the corrective actions as described in their January 4, 1983 response letters to the Notice of Violation and Proposed Imposition of Civil Penalty described in NRC Inspection Report 50-382/82-14 in that there was no documentation to demonstrate the performance of audits by Tompkins-Beckwith of hanger reinspection and/or hanger inspection on a monthly basis. There were no individual audit plans (Forms GP-723-28 and GP-723-29) or audit reports (Forms GP-723-30, GP-723-31, and GP-723-58) as prescribed by Tompkins-Beckwith QA Procedure TBP-8, "Quality Assurance Audit," Sections 6.2 and 6.4, respectively. In addition, the licensee could not demonstrate the surveillance of hanger installations by Tompkins-Beckwith that were to continue through the system release and turnover process.

Ref: NRC Inspection Report 50-382/84-32

II. Failure to Ensure Qualification of QA Personnel

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

LP&L QA Manual Section QR 10, Revision 2, "Inspection," paragraph 10.6, requires that inspections be performed by qualified individuals who are independent of the individuals or groups performing the activity being inspected. Inspectors shall be qualified through experience, education, and training to perform the assigned inspection tasks. Where required by code, inspectors shall be formally examined and certified. A current file shall be maintained of the credentials for each inspector.

A. Mercury Quality Control Procedure QCP-3050, "Qualification of Inspection, Examination, and Test Personnel," paragraph 5.I, describes the educational and experience requirements for the three levels of inspector qualification. These factors are not absolute when other factors provide reasonable assurance that a person can competently perform a particular task.

Contrary to Mercury QC Procedure QCP-3050, the following were instances identified where Mercury quality control (QC) inspectors did not meet the described requirements. In addition, documentation was not available to verify capability in a given job through previous performance or satisfactory completion of proficiency testing.

1. Twelve Mercury QC inspectors were incorrectly certified due to insufficient education or experience.

   Ref: SSER-7:A-01,02.

2. Three Mercury Company Level III QC inspection personnel lacked the necessary prior experience to qualify as candidates for Level III certification.

   Ref: SSER-7:A-57.

B. Tompkins-Beckwith (T-B) Procedure TBP-4, Indoctrination, Training, and Certification of QA/QC Personnel," paragraph 6.2, states that the level of certification for inspection personnel shall be as defined in ANSI N45.2.6-1973. Section 3 of this ANSI standard describes the educational and experience requirements for the three levels of inspector certification unless other factors demonstrate capability in a given job through previous performance or satisfactory completion of proficiency testing.

Contrary to ANSI N45.2.6, 1973, 14 T-B QC inspectors were certified to levels of capability for which they were not qualified. LP&L was unable to produce documentation that showed capability through previous performance or satisfactory completion of proficiency testing.

Ref: SSER-7:A-02,28.

C. Fegles QA Procedure QAP 303-21, "Qualification of Inspection Personnel," paragraph 6, describes the educational and experience requirements for the three levels of inspector qualifications.

Contrary to Fegles Procedure QAP 303-21, two Fegles QC inspectors did not meet the qualification requirements. The first Fegles QC inspector was certified as a Level III QC inspector without the necessary experience. The second Fegles QC inspector performed the duties of the project QA manager (PQAM) while certified as a Level II inspector. To serve as the PQAM, the Fegles requirement is that the individual must be a certified Level III inspector.

LP&L could not produce documentation to show that either QC inspector was qualified to perform the assigned work, based on previous experience or completion of proficiency testing.

Ref: SSER-7:A-110.

D. J. A. Jones Procedure POP-N-702, "Personnel Training, Qualification, and Certification," paragraph 6.3.1, requires that all training and certification be in accordance with J. A. Jones Construction Company's QA personnel training and certification program. This program describes the educational and experience requirements for each level of inspector certification.

Contrary to the J. A. Jones QA Program, five J. A. Jones QC inspectors did not meet the certification requirements.

One J. A. Jones inspector was not properly certified as a Level I QC inspector; however, he was performing the duties of the PQAM while the original PQAM was absent from the site. J. A. Jones Company requires that the individual performing the duties of the PQAM be a certified Level III inspector.

Three of the five J. A. Jones QC inspectors were certified as Level I inspectors even though they lacked the required experience, while one of these inspectors had not completed the formal classroom training and passed the proficiency exam.

The fifth inspector who was certified as Level II did not have the required experience and there was no record of passing the proficiency exam.

Ref: SSER-7:A-110,160.

III. Failure To Adequately Disposition Conditions Adverse to Quality

Criterion XVI of 10 CFR 50, Appendix B requires that measures be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition.

LP&L QA Manual Section QR 16.0, "Corrective Action," paragraph 16.2, requires in part that the major contractors and their suppliers establish written procedures for identifying, for determining the cause of, for evaluating, and for correcting conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances.

A. Ebasco Procedure ASP-III-7, Issue K, "Processing of Nonconformances," paragraph 4.3, defines a nonconformance as a condition in characteristics, documentation, or procedure which renders the quality of the item or service unacceptable or indeterminate. Attachment 7.1, Item 15, requires that the recommended disposition provide specific resolution to correct the nonconforming condition, including program changes necessary, i.e., revision to specifications, procedures, retraining of personnel, etc. In addition, Item 20 requires that a separate individual evaluate the disposition to ensure that the recommended disposition provides justification as applicable to support and document compliance with applicable codes and standards or makes reference to the appropriate analysis reports.

Contrary to the above, the disposition for the following examples of Ebasco NCRs was not adequate to resolve the identified nonconformance.

NCR-7139 - Involved field inspections of horizontal seismic supports for radiation monitors RE-HV 5021S, and RE-HV D200.65. Only the data for the RE-HV 5021S support was the correct attachment.

NCR-3912 - Fit-up inspection for nine 23J-2 type supports was bypassed. The original NCR disposition failed to address the actions required to prevent the reuse of the items.

NCR-5563 - Identified that a J. A. Jones QA inspector trainee dispositioned NCR-W3-1728 regarding the fuel handling building crane for J. A. Jones QA department. The inspections in question were signed off on August 27, August 28, and November 6, 1979, and then by a co-signature on February 4, 1983, by a QA inspector who claimed to be present at the first inspection. This co-signature of the inspections in question eliminated the requirement for a reinspection called for in the recommended disposition.

NCR-6159 - Inspection of tubetrack welding identified that prior to July 1982, an unknown quantity of welding was performed using WPS-"B" procedure without backing plates. Traceability problems were not identified and addressed by the NCR-6159. In addition, the sample used for tensile testing the welds should have been representative of the weakest weld joint in lieu of the strongest (i.e., worst case example should have been used to conduct tests).

NCR-3919 - A tubing crack discovered during a system hydrostatic test of instrument line PT-RC-0173, system 52A2 (reactor coolant) resulted in significant construction deficiency (SCD) No. 61 being issued. The tubing failure was a result of a manufacturing defect (process, not metallurgical), and an attempt was made to ascertain that all tubing of this specific heat number was reinspected.

Corrective action was to reinspect all tubing installations to locate this heat of defective tubing. The reinspection reportedly located all installation locations. Review of this NCR revealed that operational control record (OCR) installation packages indicated that approximately 530 feet more tubing was installed than was received on site. This was also verified by a review of warehouse issuance records. The "Requisition on Warehouse" form had been changed using liquid paper and a subsequent entry had been crossed out with ink.

NCR-7547 - Noted discrepancies against OCR-1830 and Mercury NCR-0806. The disposition was based on passing hydrostatic test for acceptability of fitup discrepancy between the union and tubing. The disposition does not account for the effects of service conditions such as vibration and cyclic loads; and an engineering evaluation was not performed.

NCR-1650 - Identified that the pressure gauge on the anchor bolt tension tester was out of tolerance, reading +450 psi higher than actual. The NCR disposition was to retest all anchor bolts installed prior to the date the tension test gauge was determined to be out of calibration. However, the affected bolts cannot be identified since the torquing procedure, QCP-309, did not require the recording of the tester serial number.

NCR-6623 - Identified that a heat number and signature had been falsified. The tubing in question was removed and replaced in accordance with Mercury NCR 3696. The NCR's disposition did not address why the heat number and signature had been falsified.

NCR-5586 - Weld Testing Laboratory was not surveyed (audited) and placed on the Approved Vendors List by Mercury prior to welder performance qualification taking place. This item was not addressed in the NCR disposition. Also, the statement provided by the test lab that "a Mercury inspector reviewed all tests" is not adequate.

NCR-6165 - States ". . .welder R-1 is not qualified to this procedure. . ." The disposition states, ". . .Measures taken to preclude recurrence is required. . ." No indications of the actions taken could be located.

NCR-7099 - Identified improper weld on cabinets 48A and 48B. FCR-IC-P-416, Revision 1, Sk-1, called for a fillet weld where a flare bevel weld was required. Weld size and length were not adequately addressed. The evaluation of disposition by Ebasco states, "Evaluation indicates that the stresses are low." There is no documentation indicating what stresses were being referred to. In addition, the recommended disposition "that ESSE (Ebasco Site Support Engineering) evaluate the cabinet base metal cracks" was not addressed.

NCR-4137 - Identified material and weld problems on supports on SCR-238. This NCR was closed out but failed to have 3 of 4 required welds on "M" gusset plates completed.

NCR-4088 (Mercury-491) - This NCR identified numerous discrepancies found during a walkdown performed against drawing 160-T-035-A. No documentation was available that verified work had been accomplished or completed.

NCR-5974 - Identified a problem with loss of heat number traceability for safety and non-safety grade related materials. This NCR was used to disposition approximately 150 to 200 DNs with "Q" prefix. The disposition did not address the possibility that safety and non-safety grade materials could have become mixed.

NCR-6786 - Identified that many Mercury NCRs were issued concerning the lack of heat numbers. These NCRs were closed by referencing a generic series of Ebasco NCRs. The Ebasco disposition stated that the possible heat numbers will be documented on the Mercury as-built drawings. This data is not recorded on the as-built drawings. However, the Mercury Company NCRs have been closed. The disposition of this NCR does not address where the required heat numbers were recorded or how traceability was maintained.

NCR-7177 - Fischbach and Moore (F&M) violated Procedure QCP-309, 6.3.2.4, that is, they failed to test three additional expansion anchors for every anchor that failed. In addition an uncalibrated pressure gauge was used on the tension tester and tension tester serial numbers were not recorded. The NCR disposition stated that "QCP-309 did not require recording of serial numbers"; this violates ANSI N45.2, Section 13, that requires the traceability of measuring and test equipment to point of usage. F&M should have written an NCR. Inspection Report (IR) 311-06-70 and IR 310-36-43 identified bolt failure due to excessive slippage. Dispositions prescribed by these IRs were in violation of QCP 309, Section 6.3.2.2(d) and 6.4.3.

NCR W3-5564 - Involved lack of records to verify the inspection of bolting and welding by J. A. Jones on Seismic Category I stairs between elevations -34.75' and -8.0' in the fuel handling building. The recommended disposition included inspection of welds and bolted connections by Ebasco QC. Welding repairs for four welds were completed and inspected on July 26, 1983. Dispositioning of the NCR was not acceptable with regard to inspection of welds without removing the paint. The paint precludes adequate visual inspection of the welds.

NCR W3-5565 - Involves witnessing and acceptance of reeving of the FHB bridge crane by a QC inspector trainee who was not certified as a Level 1 inspector at the time of inspection. The recommended disposition was for Ebasco QC to reinspect the work by a certified inspector and process the required documentation. Records were not available to verify that the required reinspection had been performed by a qualified QC inspector.

NCR-7182, NCR-7180, NCR-7181, NCR-7184, NCR-6723 - These NCRs also involve a violation of ANSI N45.2, Section 13 requirements in that QCP 309 did not require the tension testing equipment's serial number, calibration date, and pressure gauge number to be recorded.

NCR-6514* - The problem of traceability for the weld being performed was still in question; not addressed. The NCR also questioned use of some Bergen-Patterson designed supports installed by Mercury without traceability. This problem was also not addressed by referenced attachment.

NCR-3941-RI* - Identified that support number one fitup inspection was bypassed and the support had been completely welded out with only the welder's ID.

NCR-6621 - Identified that weld control records were signed off by an individual who was not a certified Level II inspector. Sign-off was based on Letter of Designation. The NCR disposition referred to the T-B (April 1, 1980) Quality Manual that was not in effect at the time the Letter of Designation was written (January 8, 1979). Also, a reference given in the Letter of Designation did not allow designee sign-offs and was in effect as of March 15, 1983; the Letter of Designation also failed to meet the requirements of ANSI N45.2.6.

NCR 6511 (Mercury-3336) - Stated that "during final inspection of installed I-beam for support 1117-1114m weld to existing beam 1A was rejected." The NCR only addressed the fact that the maximum gap was violated, but the weld was rejected for: (1) undersize, (2) lack of fusion, (3) arc strikes, and (4) undercut. Mercury NCR 3336 recommended weld removal and rework. This recommendation was crossed out and only the nonconforming fitup gap was addressed. There were no records of rework or reinspection, and only copies of Mercury's NCR were attached to Ebasco's NCR.

NCR-4219 (Mercury-614) - Identified a violation of QCP 3110.4, paragraph 6. The sample system piping had been bent downward causing a low point in the piping. The piping was being forced down by support SLRR-188. QCP-3110.4 stated that "tubing must be properly routed." This disposition stated that ". . .tubing was reevaluated after support SLRR-188 and sample line were installed, after completion of Penetration 29 work." There were no records for rework or reinspection to indicate satisfactory reinstallation of supports and sample lines.

NCR-7432 - Identified a problem with concrete preplacement and post-placement documentation. The documentation could not be matched because the identification of the various placements were on different QC forms. Also, this NCR was dispositioned by stating ". . .this problem was addressed on other NCRs and therefore voided. . ." No specific references were used; therefore, this disposition is unacceptable. Also, a QA engineer approved the recommended disposition and then voided the NCR.

Ref: SSER-7:A-33 (applicable to all above NCRs).

NCR-7724 - Addressed problems with the qualification of Mercury welders. Ebasco's disposition of this NCR failed to determine if (1) welder M-109 had performed welds to WPS-Y for which he was not qualified; (2) welder M-101 had performed welds to WPS-Y for which he was not qualified; (3) welder M-85 had performed welds to WPS-D after his qualifications record had been voided.

Ref: SSER-7:A-215.

NCR-6234 - Identified problems with the sampling frequency of cadwelds for tensile testing for all positions and bar sizes after a cadweld was visually rejected. The data presented in the NCR was not sufficient to determine if the required tensil test sampling frequency was resumed after each visual reject.

Ref: SSER-7:A-146.

NCR-6719/R1 - Identified problems with Mercury hydrostatic test conditions. The Ebasco disposition of the NCR was based on analyzing the "worst case" hydrostatic test conditions; however, only one test was reviewed by Ebasco.

Ref: SSER-7:A-49.

NCR-5997 - Identified problems with the certification of personnel inspecting the clam shell filler blanket under the nuclear plant island. Ebasco's response to the NCR was that the J. A. Jones QC inspector cited was qualified when he performed the inspection although his employer certification did not exist. This response was determined to be incorrect because the J. A. Jones QC inspector had no testing or inspection experience prior to coming to Waterford 3.

Ref: SSER-7:A-114.

NCR-1579 - Documented the heat numbers, after paint was removed, for 1" to 1-1/2" adapters. The closure of the NCR documented heat numbers for 1-1/2" to 1" reducers on the same instrument installation. A visual inspection of the installation by the NRC inspectors did not reveal the heat numbers. The disposition of this NCR is questionable based on how the QC inspector was able to verify the heat numbers.

Ref: SSER-7:A-220.

*These NCRs were closed out by referring to Ebasco letter F-61147E. The problem is that this letter did not close out these or other NCRs.

B. Mercury Procedure SP-669, "Procedure for Handling of Nonconformances and Corrective Action," paragraph 4.2, defines a disposition as, "Those actions required to resolve a nonconformance."

Contrary to the above, the recommended disposition for the following examples of Mercury NCRs was not adequate to resolve the identified nonconformance.

NCRs 313, 322, and 337 - Identified seven ¾" stainless steel lines for P2 instruments that were damaged by weld spatter. The NCR stated that the lines were replaced and documented as such in operational control record (OCR) 995 and OCR 1020, but it could not be ascertained from these rework packages that the repair and reinspection was either started or completed. There was no documentation with these NCRs to prove that corrective action was completed.

NCR 363 - Indicated a problem with fitup of emergency diesel generator fuel oil tank "A". This was a safety-related system; therefore, an authorized nuclear inspector (ANI) review should have been performed, but was not.

NCR 554 - Noted numerous problems with supports during a walkdown. There was no proof of work being performed to correct these problems other than a memo (Form 211) stating that work was performed.

NCR 658 - Identified problems with OCR 1671 seismic Category I support, B-430-x23-J-42. The NCR stated "the disposition has been completed, all rework documented." There was no other documentation in the package other than the NCR W3-7317 acceptance letter.

NCR 572 - Noted that the weld on support location #26 was undersized. The NCR stated that the weld was reworked and weld metal added to bring weld to sufficient size. There was no reference as to what OCR was issued to perform this rework or traceability of weld metal used in the performance of this job. Also, there were no inspection reports identified or contained in the package.

NCRs 673-678 - These NCRs were closed out by the statement: "Administratively closed B31.1 to be tracked and resolved by Mercury Engineering Department." This resolution was unacceptable as the requirements of 10 CFR 50, Appendix B apply to safety-related installations as committed to by LP&L. (Also, all of these NCRs were reviewed by Ebasco under NCR W3-7317 and accepted "as-is.")

NCR 673 - Identified problems with instrument tubing installed by OCR #723.

NCR 674 - Identified problems with the electromagnetic control panel worked by OCR #1246.

NCR 675 - Identified problems with instrument tubing installed by OCR #720.

NCR 675 - Identified problems with instrument tubing installed by OCR #720.

NCR 677 - Identified problems with instrument tubing installed by OCR #1332.

NCR 678 - Identified problems with instrument tubing installed by OCR #723.

NCR 888 - Indicated problems with personnel qualifications; e.g., "Several QC type personnel have been certified Level II without documented indications of qualification requirements per QCP 3110, paragraph 1.4 and ANSI N45.2.6." Recommended disposition was marked "N/A" yet the recommended disposition as completed stated "This NCR not processed:

(1) Initiator not a Mercury employee at time of writing; (2) QCP 3110-...does not apply to W3; (3) ANSI N45.2.6 previously incorporated by QCP 3050 is approved. All M Co. QC techs are trained and tested per QCP 3050 prior to performing inspection or tests."

NCR 889 - Indicated problems dealing with piping supports installed by Mercury in that the installed hangers were different than those noted in Mercury's QC support installation documentation. As with NCR 888, the recommended disposition was marked "N/A" and the recommended disposition was completed by saying "This NCR not processed:

(1) Initiator not a Mercury employee at time of writing; (2) QCP 3110-...does not apply to W3; (3) ANSI N45.2.6 previously incorporated by QCP 3050 is approved. All M Co. QC techs are trained and tested per QCP 3050 prior to performing inspection or tests."

NCR 3149 - Indicated that there was no documented indications that welder M-343 was qualified to welding procedure specification D (WPS-D). Disposition of this problem was by use of a weld test coupon subsequently found on April 27, 1983, but no longer available. No documentation existed on the qualification of this welder or on his retest. Thus, all welds made by this welder were suspect.

Ref: SSER-7:A-232.

C. Ebasco Procedure ASP-IV-70, "Handling of Engineering Discrepancy Notices," in paragraph 4.1 defines a discrepancy as "A deviation from the specified requirements (including procedures) than can be readily corrected in accordance with standard approved operating procedures or specifications based on good engineering practices. Discrepancies do not require an elaborate engineering evaluation or disposition for correction. They are deviations from good engineering practice and procedures."

Contrary to the above, LP&L and its contractor Ebasco demonstrated a pattern of dispositioning EDNs "accept as is" or "use as is" when Ebasco Procedure ASP-IV-70, "Handling of Engineering Discrepancy Notices," did not allow this disposition. The correct disposition of an EDN is to bring the subject item into conformance or generate a nonconformance for disposition.

Examples of EDNs dispositioned "accept as is" are:

1. EDN-EC-1648 Arc strikes and undercut

2. EDN-EC-1618 Procedural violations on rework of emergency diesel generator component

3. EDN-EC-1476 MT or PT on the weld root pass was bypassed.

Ref: SSER-7:A-302.

IV. Failure to Establish QA Program for Application of Nuclear Protective Coatings

Criterion II of 10 CFR 50, Appendix B requires that the applicant establish at the earliest practicable time, consistent with the schedule for accomplishing the activities, a QA 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 those policies, procedures, or instructions. The QA program shall provide control over activities affecting the quality of the identified structures, systems, and components to an extent consistent with their importance to safety.

LP&L committed to meet ANSI N101.2-1972, "Protective Coating (Paints) for Light Water Nuclear Reactor Containment Facilities," in their Preliminary Safety Analysis Report (PSAR) and Final Safety Analysis Report (FSAR) for coatings application to the interior of the containment vessel until September 1983, when the FSAR was revised to include only parts of ANSI N101.2-1972. Paragraph 7.5 (utilization) of this standard requires that the application of a given coatings system, including surface preparation, will be specified to meet the QA program established for the nuclear project utilizing this coating system.

Contrary to the above, LP&L did not require Chicago Bridge and Iron (CB&I) to establish a QA program for the application of nuclear protective coatings to the interior of the containment vessel. As a result, CB&I did not maintain documentation on the basic materials which would support the acceptability of the coatings material or its application. The only documentation available for coatings applied to the containment vessel were the Ebasco QC surveillance inspection reports. There was no established method of documenting the coating work until flaking and delamination of Carbo Fine 11 (primer) occurred after postweld heat treatment was completed by CB&I.

Ref: SSER-7:A-256,271.

V. Failure To Maintain Quality Assurance Records

Criterion XVII of 10 CFR 50, Appendix B requires that sufficient records be maintained to furnish evidence of activities affecting quality. The records shall include at least the following: operating logs and the results of reviews, inspections, tests, audits, monitoring of work performance and material analyses. The records shall also include closely related data such as qualifications of personnel, procedures, and equipment. Inspection and test records shall as a minimum, identify the inspector or data records, the type of observation, the results, the acceptability, and the action taken in connection with any deficiencies noted. Records shall be identifiable and retrievable. Consistent with applicable regulatory requirements, the applicant shall establish requirements concerning record retention, such as duration, location, and assigned responsibility.

LP&L QA Manual Section QR-2.0, "Quality Assurance Program," Table 2.1, states that LP&L is committed to guidance document ANSI N45.2.9, "Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Plants," draft 11, Revision 0, January 1, 1973. This ANSI standard requires that the licensee retain QA records in accordance with the retention periods listed in Appendix A of this standard. The following is a sample list of types of records with the retention periods indicated.

Record Type	Permanent	Years After Commercial Operation
Concrete Placement Records	x	
Soil Compaction Test Reports	x	
Field Inspection Report and Release	x	
Material Properties Reports	x	
Performance Test Procedures and Results Records	x	
Nonconformance Reports	x	
Welding Personnel Qualifications		2
Welding Procedures	x	
Welding Inspection Reports (Magnetic, Liquid Penetrant, Radiographic, Ultrasonic)	x	
Welding Filler Metal Material Reports	x	

Contrary to the above, the NRC inspectors noted that the following QA documents had not been maintained as required by ANSI N45.2.9.

A. Mercury Construction Company did not maintain proper accountability of all Mercury Nonconformance Reports (NCRs) to demonstrate NCR retention requirements of ANSI N45.2.9 were satisfied prior to 1982.

Ref: SSER-7:A-232

B. Ebasco did not maintain the following voided NCRs as part of their QA records: W3-27, W3-814, W3-859, W3-981, W3-1053, W3-1102, W3-1109, W3-1228, W-1349, and W3-1438.

Ref: SSER-7:A-18.

C. Chicago Bridge and Iron did not maintain records of coating materials purchased from Carboline for applications to the inside of the containment vessel.

Ref: SSER-7:A-256.

D. GEO Construction Testing Company did not maintain quality assurance records for the qualification of construction materials testing personnel prior to 1982.

Ref: Inquiry Team [IT] Report, Sections II.A.1.e and III.A.3.d.

E. Concrete placement package 593-S01-16 is missing sheet 3 of 5 of the concrete test records.

Ref: SSER-7:A-109.

F. Concrete placement package 593-S01-UZ4FHAA does not contain the original concrete curing log.

Ref: SSER-7:A-112.

G. Backfill records for the seven placement fills surrounding the foundation walls do not contain the in-place testing frequency records for the first 3 feet of backfill in fill area #7 or the first 5 feet of backfill in area #5.

Ref: SSER-7:A-138.

H. Inspection documentation does not exist for several bolted connections on the east and west main steam line framing (elevation +46 and above).

Ref: SSER-7:A-30.

I. Two common foundation pour packages (499-S02-6 and 499-S03-13B) are missing approximately 5 pages of the in-process test records.

J. CCW system structure (cooling tower) pour package (499-804-8A1). The top of the wall pour was identified as not being covered with water for one day during that airing period. Discrepancy Notice (DN) L308 specified that the normal curing period be extended two extra days. Curing information for the final day was not in the package.

Ref: CAT, Section V.B.1.

VI. Failure to Adequately Review Quality Assurance Records

Criterion XVII of 10 CFR 50, Appendix B requires that sufficient records be maintained to furnish evidence of activities affecting quality. The records shall include at least the following: operating logs and the results of reviews, inspections, tests, audits, monitoring of work performance, and material analyses. The records shall also include closely related data such as qualifications of personnel, procedures, and equipment. Inspection and test records shall, as a minimum, identify the inspector or data records, the type of observation, the results, the acceptability, and the action taken in connection with any deficiencies noted. Criterion V of 10 CFR 50, Appendix B requires that activities be accomplished in accordance with procedures appropriate to the circumstances.

Ebasco QA Instruction QAI-9, "Review and Handling of Construction - Installation Records," describes the requirements that QA records must be reviewed for to verify their acceptability.

Contrary to the above, the following QA record deficiencies should have been identified and corrected during Ebasco's QA document reviews that were performed to verify their acceptability.

A. Deficiencies existed in N1 instrument records of installation and inspection in zones classified under ANSI B31.1 prior to April 7, 1982. The record deficiencies included weld reports, welder identification, weld filler material, base material, and weld inspection reports.

Ref: SSER-7:A-197.

B. QC inspection weld records for the instrument cabinet support structures inside the containment building do not indicate if the welds were accomplished by welders working in positions for which they were qualified.

Ref: SSER-7:A-160.

C. Component cooling water (CCW) system structure (cooling tower) pour package (499-S04-1A3 and 1A4), test values slightly exceeding specification was recorded but not identified as being nonconforming conditions.

Ref: CAT, Section V.B.1

VII. Improper Welder Certification

Criterion XVI of 10 CFR 50, Appendix B requires that measures be established to assure that special processes, including welding, heat treating, and nondestructive testing, are controlled and accomplished by qualified procedures in accordance with applicable codes, standards, specifications, criteria, and other special requirements.

LP&L QA Manual Section QR 9.0, Revision 2, "Control of Special Processes," requires that "Special process control records shall provide objective evidence that special processes were performed in compliance with approved special process control procedures by qualified personnel. Results of nondestructive examinations, inspections and tests shall be recorded in accordance with applicable codes, standards and specifications. Special process control shall be retained by the vendor and/or supplied to LP&L as required by contract or purchase order. Qualifications records of procedures, equipment, and personnel associated with special processes shall be established, filed, and kept up-to-date."

Contrary to the above, the following examples of Mercury welder certification records indicated the welders were certified to welding procedures for which they were not qualified.

A. Welder M-44 - Was originally qualified to WPS-B but the record had been retyped and incorrectly indicated the welder was qualified to WPS-Y. The NRC staff reviewed the welder's qualifications record, but could find no qualification to WPS-Y.

B. Welder M-109 - The NRC staff found that the welder's WPS-Y qualifications record was dated November 26, 1982, and voided October 22, 1983; however, the welder qualification status record did not show qualification or welding performed to WPS-Y.

C. Welder M-9 - This welder's qualification status record reflected dates different than those recorded on the welder qualifications record for WPS-E. This record had been revised to change the qualification test date form December 18, 1979 to December 18, 1978. However, the welder qualification status record indicated the test was performed on December 18, 1979, as originally dated.

D. Welder M-101 - This welder was originally qualified to WPS-B but the welder's qualification test record had been revised and the qualification changed to WPS-Y. The NRC staff reviewed the welder's qualification record, but could find no qualification to WPS-Y.

Ref: SSER-7:A-215.

VIII. Failure to Properly Identify Conditions Adverse to Quality

Criterion XVI of 10 CFR 50, Appendix B, requires that measures be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material, and equipment, and nonconformances are properly identified and corrected.

LP&L QA Manual Section 16.0, "Corrective Action," paragraph 16.2, requires, in part, that the major contractors and their suppliers establish written procedures for identifying, for determining the cause of, for evaluating, and for correcting conditions adverse to quality such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances.

A. Mercury Procedure SP-664, "Procedure for Handling of Nonconformances and Corrective Action," paragraph 5.0, requires that the individual or department that identifies a nonconforming condition initiate an NCR.

Contrary to the above, drawing 172-L-012-C, Revision 4, had a handwritten note which identified two lines, DPT-RC-9116 SMB (HP) and DPT-RC-9116 SMA (HP), where the line separation criteria had been violated for startup system (SUS) 52A. This condition was not addressed on an NCR until discussed with the licensee.

Ref: SSER-7:A-279.

B. EBASCO Procedure ASP-III-7, "Corrective Action," Paragraph 6.2.1, requires, in part, that a nonconformance report be issued if the condition cannot be corrected within the scope of approved engineering drawings, specifications, or procedures, or if elaborate engineering evaluation is required, or involves items designed ASME Section III. Paragraph 4.3 of this procedure defines a nonconformance as "a condition in characteristic, documentation, or procedure which renders the quality of an item or service unacceptable or indeterminate. Examples of nonconformances include: physical defects, test failures, incorrect or inadequate documentation, or deviation from prescribed inspection or test procedures."

Contrary to the above, the following deficiencies were identified during performance of EBASCO Quality Assurance Instruction QAI 9, "Review and Handling of Construction - Installation Records:"

1. Q3-CC-1C-16 - *9.2 dated May 5, 1983, reviewed Item 1 - Torque wrench CT-339 was designated by field instructions for torqueing of bolts to 90 ft/lbs. This wrench, designated for work between 0-600 ft/lbs. had not been calibrated for use in the lower range. Resolution was "use as is" since the bolts are evenly torqued, but resolution did not address the problem with the calibration of the torque wrench. An NCR should have been issued.

2. Q2-ST-1C 89 - *9.2 dated March 24, 1983, reviewed Item 17 - Dravo certified material test report (CMTR) which indicated the piping material specified was 376TP304. The bill of material specified the material as 358TP304. An NCR should have been issued.

3. Q2-W3-SI-10-F/E - *9.2 reviewed Item 11 - Supplemental data was added to quality assurance records. The additions were neither initialed or dated, as required by ANSI N4.5.2.9, paragraph 3.2.6. An NCR should have been issued.

4. QMC-HYPO P11E - *9.2 reviewed Items 43, 78, 81 - Penetration test reports were generated as a result of the work required by CIWA 820914 and FCR 1490 R1 for the installation of seal rings in penetrations. The work performed was not inspected or documented. An NCR should have been issued.

*Refers to Quality Assurance Instruction QA1-9, Attachment 9.2, "Construction - Installation Records Deficiency Report."

Ref: SSER-7:A-05.

C. T-B Procedure TPB-12, "Nonconformance and Discrepancies," states in Section 6.2, "DNs are required to be upgraded to Ebasco NCRs when the following criteria applies . . " (as defined in Section 4.1)

"Nonconformance - A deficiency in characteristic, documentation or procedures which renders the quality of an item or service unacceptable or indeterminate. Examples of a nonconformance include: physical defects; test failure, incorrect or inadequate documentation or deviation from prescribed inspection or test procedures, drawings, code and contract equirements."

Contrary to the above, T-B failed to upgrade DNs into Ebasco NCRs as required. The following DNs are examples that should have been upgraded:

1. T-B DN-5047 documented a welder using the wrong procedure to complete a weld. The procedure used was judged by a welding engineer to be metallurgically compatible with the correct procedure. Consequently, the weld record was revised after the completion of the weld to require either the originally required procedure or the procedure used. This DN was never upgraded to an NCR.

2. T-B DN-W-728 documents a missed ANI witness hold point to a PT inspection. The inspection was redone with the ANI present. This incident was not upgraded to an NCR.

3. T-B DN-W-4112 documents 3000# couplings being installed where 6000# couplings were required. Engineering evaluated the installed material and determined its acceptability, but the nonconforming material was never upgraded to a nonconformance.

Ref: SSER-7:A-302.

IX. Inadequate Procedures to Control Activities Affecting Quality

Criterion V of 10 CFR 50, Appendix B requires that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings.

LP&L QA Manual Section QP-5.0, Revision 2, "Instructions, Procedures and Drawings," required that "Safety-related activities of LP&L and its major contractors shall be described in documented instructions, procedures, drawings, specifications, checklists, or manuals appropriate to the circumstances. Activities such as design, procurement, manufacturing, construction, installation, testing, inspection and auditing shall be accomplished in accordance with these documents."

Contrary to the above, review of the following procedures revealed that the instructions were inadequate to ensure that activities affecting quality were correctly executed.

A. Ebasco Procedure ASP-IV-18, Issue Q, "Receiving, Storage, Issuing and Control of Welding Electrodes and Filler Materials," does not meet the storage and rebake requirements for storage of AWS A5.1 (7018), electrodes, as described by AWS D1.1-1980, to which Ebasco is committed. American Welding Society AWS D1.1-1980 requires that low hydrogen electrodes conforming to AWS A5.1 be purchased in hermetically sealed containers or be dried for at least 2 hours between 450°F and 500°F before they can be used. Electrodes shall be dried prior to use if the hermetically sealed container shows evidence of damage. Immediately after opening of the hermetically sealed container or removal of the electrodes from drying ovens, electrodes shall be stored in ovens held at a temperature of at least 250°F (120°C). After the opening of hermetically sealed containers or removal from drying or storage ovens, electrode exposure to the atmosphere shall not exceed 4 hours prior to being returned to the storage area. In the case that electrodes are exposed for a period greater than 4 hours, the electrodes are required to be redried.

Ebasco Procedure ASP-IV-18 requires that electrodes be stored in ovens of a temperature between 200-300°F for approximately 8 hours following removal from the hermetically sealed container and prior to use. Covered electrodes are not to be exposed to ambient temperatures for more than 4 hours and if unused are to be returned to the storage ovens for 8 hours prior to reissuance. No instructions are given for electrodes exposed for a period greater than 4 hours.

Ref: SSER-7:A-215.

B. LP&L Construction QA transferred systems to LP&L Operations without using approved procedures for conducting reviews prior to the transfer on or before March 22, 1984. An approved procedure was issued on March 22, 1984 for conducting these reviews.

Ref: IT:Sections II.A.1.m and III.A.5.c.

X. Failure to Control Conditionally Released Equipment

Criterion XVII of 10 CFR 50, Appendix B requires that sufficient records be maintained to furnish evidence of activities affecting quality. . . The records shall also include closely-related data such as qualifications of personnel, procedures, and equipment.

EBASCO Procedure ASP-IV-86, "Conditional Release of Nonconforming or Deficient Items," Section 6.1, requires, in part, that nonconforming or deficient items released on a conditional release basis be approved by the QC supervisor and assigned a QC log number.

Contrary to the above, a list of deficiencies associated with the conditional certification of equipment was found for equipment supplied by Combustion Engineering, Inc. (C-E). One conditional certification of equipment involved the reactor vessel and internals. This certification was issued because as-built drawings, material certifications, and the fabrication plans had not been forwarded when equipment was delivered to LP&L in 1976. This condition existed since July 25, 1976 until it was identified in April or May of 1984, indicating that the system used to control conditional releases was not adequate to ensure that all releases were appropriately approved and assigned. Furthermore, records were not sufficient to verify that all conditional releases have been identified.

Ref: SSER-7:A-165.

XI. Failure to Maintain Design Control

Criterion III of 10 CFR 50, Appendix B requires that measures be established for the identification and control of design interfaces and for coordination among participating design organizations for review, approval, release, distribution, and revision of documents involving design interfaces.

EBASCO Procedure ASP-IV-58, Revision E, "Attachment to Seismic Supports," requires added loads be reported to engineering for inclusion into the "Seismic Allowable Load Chart."

Contrary to the above, the NRC CAT examination of 28 seismic cable tray and HVAC supports revealed that 18 exhibited loads were not shown on design documents and were not reported to engineering included in the "Sesmic Allowable Load Chart."

The following cable tray supports exhibited this condition:

C-459	C-1406	C-1435
C-512	C-1407	C-1989
C-517	C-1418	C-8031
C-874	C-1428	C-2318
C-744	C-1429	33E838

Additionally, NRC CAT observed that six of the 15 supports listed above contained loads in excess of the stated allowable and should have been individually analyzed by engineering. These supports are:

C-1407	317% of allowable
C-1418	161% of allowable
C-1420	249% of allowable
C-1429	162% of allowable
C-1435	164% of allowable
C-2031	151% of allowable

Ref: CAT:Section VIII.B.4

XII. Failure to Adequately Perform Document and Design Control Reviews

Criterion VI of CFR 50, Appendix B requires that measures be established to control the issuance of documents such as instructions, procedures and drawings including changes thereto, which prescribe all activities affecting quality. These measures shall assure that documents, including changes, are reviewed for adequacy and approved for release by authorized personnel and are distributed to and used at the location where the prescribed activity is being performed.

LP&L Quality Assurance Manual, Section QR 6.0, Revision 2, "Document Control" paragraph 6.1 requires that "LP&L and its major contractors shall establish document control programs to control the review, approval, and issuance of documents, such as instructions. procedures, and drawings, including changes thereto, to assure that the documents are adequate and that the quality requirements are stated. . ."

Contrary to the above, discrepancies were identified with controlled documents as described in the following examples:

A. Drawing Stick Files

1. Drawings within the following design groups of Ebasco Site Services Engineering (ESSE) were not properly posted with the applicable Field Change Request (FCR) and Design Change Notice (DCN) numbers.

Design Group	Dwg. No.	Rev.	FCR/DCN Not Posted
ESSE Electrical	G310 sh4	3	DCN-E-1193
ESSE Electrical	G314	8	FCR-E-3192 R3 DCN-E-825 R4
ESSE Mechanical	G435 sh6	3	FCR-IC-P-602 DCN-IC-1247 R1

2. Drawing stick files which contained controlled drawings within the following design groups of ESSE were not kept current with respect to the latest drawing revisions.

Design Group	Dwg. No.	Revision Found	Latest Revision
ESSE Mechanical	G432 sh8	7	8
ESSE Mechanical 4305 1893	EMDRAC	3	4
ESSE I&C Mech.	G161 sh2	6	14
ESSE I&C Mech.	G164 sh3	8	10
ESSE I&C Mech.	G164 sh4	Missing	2

3. The following errors were identified in the Drawing Closeout Schedule of January 20, 1984.

Drawing	Improper FCR/DCN Listing	FCR/DCN Not Listed But Outstanding
G435 sh5 R3		FCR-IC-P-602
G190 sh3 R3	DCN-MP-704 R1	
G162 sh2 R11		FCR-MP-2474
G162 sh4 R1	FCR-MP-2474	FCR-MP-2589
G310 sh2 R2	FCR-E-850	
G310 sh3 R3	DCN-E-1444	
G311 sh1 R8	DCN-E-1023	
G315 R6	FCR-E-533 FCR-E-988 R3 FCR-E-1089 FCR-E-1188 DCN-E-463 R2 FCR-E-2567	DCN-E-1345 R2
G319 sh1 R8		
G320 sh1 R8		FCR-E-1444
G320 sh1 R10		FCR-E-1444
G432 sh5 R7	DCN-IC-1179 R2	FCR-IC-P-37

B. General Specification MC-1, "General Specification Covering Installation of Mechanical Equipment."

1. A copy of specification MC-1 did not have the correct posting upon receipt from field Document Control. Specifically, the revisions to FCR-CH-110 were not posted.

The missed posting in Document Control occurred because the originating and reviewing organizations of FCR-CH-1101 Rev. 2 and Rev. 3 did not correctly identify that specification MC-1 was an affected document. As a consequence, Document Control could not properly post these two revisions against the document.

2. ESSE Mechanical's controlled copy of specification MC-1 did not have the following applicable FCRs posted:

FCR-M-13	FCR-M-110	FCR-M-118	FCR-M-123
FCR-M-129	FCR-M-196	FCR-CH-1237R1	FCR-M-1101R3

From a review of the dates of approval of these FCRs, it can be concluded that posting of applicable FCRs against specification MC-1 was not performed after April 4, 1981.

Ref: CAT, Section VII.B.1.

XIII. Failure to Implement an Adequate Inspection Program

Criterion X of 10 CFR 50, Appendix B requires that a program for inspection of activities affecting quality be established for and executed by or for the organization performing the activity to verify conformance with the documented instructions, procedures, and drawings for accomplishing the activity.

LP&L QA Manual Section 10, "Inspection," paragraph 10.1 requires, in part, that LP&L's major contractors establish programs for inspection during manufacturing and construction to assure conformance with applicable instructions, procedures, drawings, specifications, and contract requirements.

Contrary to the above, the licensee did not ensure that an adequate inspection program was implemented by their contractors:

A. For the verification of electrical raceway separations. This is established by the number of observed raceway cable trays and conduits, listed in Table I-1, which do not maintain the required separation between divisions.

TABLE I-1

SEPARATION VIOLATIONS

This Raceway	Violates Separation	With This Raceway	This Raceway	Violates Separation	With This Raceway
C205B-NA		C202-SA	35073B-NB		C202-SB
C206K-NA		L202-SB	3001D-PA		34324-NA
C106-SA		C114-NB	3H051BA-SB		3H051AA-SA
L202B-SB		C206M-NB	3H051AB-SA		3914B-NA
L201B-SA		C205B-NA	37855-SMB		36231-NB
31551H-SA		31551T-SB	37666-SMB		36379-SMA
P104-SB		30285-NA	32596B9-SA		3112981-SB
P-104-SB		30285C-NA	31246A-SB		31243A-SA
P104-SB		32087E-NA	31246B-SB		L208-NB
P104-SB		30287C-NA	31243B-SA		31246A-SB
C106D-NB		C102-SB	31243B-SA		35223-NB
L201B-SA		C205M-NA	31246A-SB		35D51A2-NA
C205M-NA		C201B-SA	32661D-SB		37709-NB
C205M-NA		P201B-SA	39956-SB		36225-NB
L203B-NA		C201B-SA	39956-SB		36226-NB
C205L-NA		L201-SA	L201D-SA		30203L-NB
C201A-SA		C205E-NA	L201D-SA		35210H-NA
C201A-SA		P204B-NA	39559-SA		3[illegible]004-NAB
C201A-SA		L204-NA	39787-SA		398228-NB
C201A-SA		37798-NA	C202E-SB		3100X-NB
C201A-SA		31172K-NB	C202D-SB		311004-NB
C202-SA		P204B-NA	C202D-SB		C201C-SAB
35261-SB		C102-SA	39578-SA		39821-SB
C102-SA		C103-SB	38743-SMC		L203-NB
C102-SA		32807R-NA	38743-SMC		L203D-NA
C102-SA		32807S-NA	35369-SB		L203D-NA
C102-SA		32810X-NA	37963-NA		C201-SAB
C102-SA		32810Y-NA	39851-SAB		3CPR005-NA
C102-SA		32810H-NA	3952L-SMA		39516A-SMD
C102-SA		32810S-NA	37243-SMD		37691-NB
C102-SA		32812N-NA	37172-SMA		30199M-NA
C105M-NA		C101C-SA	C204A-SA		36941-NA
C205-NA		C202-SA	C204A-SA		36942-NA
C203-SB		C202-SA	37666-SMB		37901-NA
32847F-NA		C202-SB			
3FD30A-NA		31509K-SB			

Ref: CAT, Section II.B.1.

B. To ensure that piping supports/restraints were constructed in accordance with design requirements.

Ref: CAT, Section III.B.2.

C. To ensure that HAVC restraints were inspected to the actual as-built configuration.

Ref: CAT, Section III.B.3.

These violations have been categorized in the aggregate as a Severity Level III problem (Supplement II).
(Cumulative Civil Penalties - $130,000 assessed equally among the violations.)

Pursuant to the provisions of 10 CFR 2.201 Louisiana Power and Light Company is hereby required to submit to the Director, Office of Inspection and Enforcement, USNRC, Washington, DC 20555, with a copy to this office, within 60 days of the date of this Notice, a written statement or explanation in reply, including for each alleged violation: (1) admission or denial of the alleged violation; (2) the reasons for the violation, if admitted; (3) the corrective steps that will be taken and the results achieved; (4) the corrective steps that will be taken to avoid further violations; and (5) the date when full compliance will be achieved. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, Louisiana Power and Light Company may pay the civil penalties in the amount of $130,000 or may protest imposition of the civil penalties in whole or in part by a written answer. Should Louisiana Power and Light Company fail to answer within the time specified, the Director, Office of Inspection and Enforcement, will issue an order imposing the civil penalties in the amount proposed above. Should Louisiana Power and Light Company elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalties, such answer may: (1) deny the violations listed in the Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalties should not be imposed. In addition to protesting the civil penalties in whole or in part, such answer may request remission or mitigation of the penalties. In requesting mitigation of the proposed penalties, the five factors contained in section V.B of 10 CFR Part 2, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of Louisiana Power and Light Company is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalties due which have been subsequently determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalties, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert D. Martin
Regional Administrator

Dated at Arlington, Texas
this 24 day of May 1985