

APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-382/84-30

Construction Permit: CPPR-103

Docket: 50-382

Licensee: Louisiana Power and Light Company (LP&L)
142 Delaronde Street
New Orleans, Louisiana 70174

Facility Name: Waterford Steam Electric Station, Unit 3

Inspection At: Taft, Louisiana

Inspection Conducted: June 18 through September 14, 1984

Inspector:

R. P. Mullikin

R. P. Mullikin, Reactor Inspector, Reactor Projects
Branch 2, Project Section A

10/17/84

Date

Participating in the inspection and contributing to the inspection report:

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Project Section B

10/19/84

Date

Inspection Summary

Inspection Conducted June 18 through September 14, 1984 (Report 50-382/84-30)

Areas Inspected: This inspection was the Region IV followup on Construction Appraisal Team Inspection Report 50-382/84-07. This inspection involved 124 inspector-hours onsite and 79 inspector-hours in-office for a total of 203 inspector-hours by seven NRC inspectors and three contractor personnel.

Results: Within the scope of this inspection, no new violations or deviations were identified. One unresolved item and one open item was identified in the Civil and Structural area involving masonry wall design deviations and cadweld testing discrepancies, respectively. One open item was identified in the Design Change Control area involving change to design documents without proper design change documents. One open item was identified in the Corrective Action Systems area involving lower tier corrective action reports not being upgraded to nonconformance report status. One unresolved item was identified in the Welding and Nondestructive Examination area involving missing time bases on post weld heat treatment charts.

DETAILS

1. Persons Contacted

Principal Licensee Employees

*R. S. Leddick, Senior Vice President-Nuclear Operations
*D. E. Dobson, Project Manager
*T. F. Gerrets, Corporate QA Manager
*L. L. Bass, Construction QA Manager
*R. G. Bennett, QA Representative
*J. Woods, Plant Quality Manager
*R. G. Pittman, QA Representative
*G. E. Wuller, Onsite Licensing Coordinator
*L. F. Storz, Assistant Plant Manager
*N. S. Carns, Assistant to Project Manager
*A. S. Lockhart, Consultant
R. I. James, QA Representative
W. M. Morgan, QA Operations Manager
B. M. Toups, QA Representative
R. S. Sandridge, QA Representative
G. F. Koehler, QA Representative
R. E. Sproles, Maintenance Supervisor
C. Wise, Maintenance Engineer

Ebasco

*J. Debruin, Project Engineer
*J. B. Hart, Licensing Supervisor
*M. K. Yates, Project Manager
*J. Houghtaling, ESSE Project Engineer

*Denotes those persons attending the exit interview.

The inspector also interviewed other licensee and Ebasco personnel during the course of the inspection.

2. Inspection Scope

This inspection was the NRC Region IV followup on findings identified during the Construction Appraisal Team's (CAT) inspection on February 13-25 and March 12-13, 1984, for Waterford Unit No. 3 and documented in NRC Inspection Report 50-382/84-07. Assisting Region IV in this followup inspection were personnel from the NRC Office of Inspection and Enforcement (Headquarters) and contractor personnel.

The scope of this inspection was to review, evaluate, and provide appropriate action or closure on the following:

- a. The 16 potential enforcement action (PEA) findings addressed in Appendix B of the CAT inspection report.
 - b. Other findings which were determined at the time of the CAT inspection to not be serious enough to warrant becoming potential enforcement action findings. This inspection reviewed those findings which were not closed out by the CAT inspector and a sampling of those CAT findings that were closed out.
3. NRC Region IV Followup to Construction Appraisal Team's (CAT) Potential Enforcement Action Findings

This inspection was the NRC Region IV followup on potential enforcement action (PEA) findings identified during the CAT inspection and documented in NRC Inspection Report 50-382/84-07 for Waterford Unit No. 3.

Examined below are the 16 PEA findings addressed in Appendix B of the CAT inspection report.

The specific items in this report are addressed by discipline and not in the same order as they appear in Appendix B of the CAT report.

a. Electrical and Instrumentation Construction

- 1) CAT PEA Finding 1.a - "Contrary to 10 CFR 50, Appendix B, Criterion III, and LP&L QA Manual Section 3, design control has not been maintained as the applicant has: . . . failed to perform the required review of significant design changes to safety-related structures. This is reflected in the high percentage of seismic supports examined which exhibit added loads not shown on original design documents or current as-built documents (Sections II.B.1 and III.B.3)."

There were 18 of 28 supports found with additional loads not shown on design documents.

Licensee Response

LP&L stated that the specific HVAC/cable tray seismic supports identified by the NRC to exhibit conditions of undocumented miscellaneous load attachments were as-built to document all miscellaneous attachments, and analyzed by Ebasco Site Support Engineering (ESSE) and found to be acceptable.

A full comprehensive walkdown and evaluation program of all 3110 HVAC/cable tray seismic supports was initiated.

The walkdown and evaluation was conducted by ESSE. Ebasco QA conducted a surveillance of the program. Walkdown personnel consisted of Ebasco structural engineers and designers.

The program was conducted in accordance with Ebasco Site Procedure ASP-IV-143. The program took into consideration the various concerns raised by the NRC CAT inspectors including the lack of accurate as-built records and conduit load attachments to tray rails. Design engineered load attachments which are documented on the structural design drawings were also considered.

The program results were as follows:

- a) Total number of HVAC/electrical seismic supports 3110
- b) Number of supports approved by Walkdown Group 2276
- c) Number of supports approved by Analysis Group 834
- d) Number of modifications issued for added loads NONE
- e) Number of configuration discrepancies found which required corrective action. 12

Ebasco Procedure ASP-IV-58 was reviewed so that all future attachments to HVAC/cable tray seismic supports would not compound the present concerns. The procedure revision requires that all future attachment requests initiate the complete review of the given seismic support to ensure that all additional loads are properly documented.

Based on the walkdown and evaluation results, LP&L confirmed that the HVAC/cable tray seismic supports are structurally capable of withstanding the design basis loading requirements, with the imposition of the additional miscellaneous attachments.

NRC Followup Inspection

This potential finding was reviewed by the NRC inspector and determined to be a violation. This violation will be identified in the NRC Task Force enforcement package to be issued later.

The licensee's response package was reviewed along with the physical inspection of seven field-installed seismic supports to assure that all loads for as-built supports had been incorporated into the seismic loading analysis.

The licensee's response was found to be comprehensive in that all of the 3,110 seismic supports installed to date were

re-examined to assure that as-built field loading conditions are documented and analyzed to demonstrate allowable support loading.

The field examination of seven seismic supports and associated documentation by NRC personnel indicates that the licensee's program has adequately identified and documented field loading conditions. Although minor discrepancies were observed relative to the recording of data for two supports, the review of the engineered loading analysis demonstrates that load values were within the allowable limit.

In summary, the licensee's program has effectively documented existing support loading conditions.

The corrective action taken by LP&L appears adequate to preclude recurrence of this noncompliance. This item is considered closed.

2) CAT PEA Finding 5.a

"Contrary to 10 CFR 50, Appendix B, Criterion X, and LP&L QA Manual Section 10, the applicant has not properly executed an inspection program in the following area[s]:

. . . The inspection of Class IE raceway installations relative to the requirements for physical separation, had not been accomplished in accordance with the criteria established in the inspection documents (Section II.B.1)."

Seventy-one instances were observed of inadequate separation between redundant safety trains and safety to non-safety installations.

Licensee Response

LP&L stated that as a result of the NRC CAT observations, LP&L issued Significant Construction Deficiency No. 105. The corrective action taken in order to restore conformance to design requirements was as follows:

Ebasco initiated a comprehensive walkdown of all Nuclear Plant Island areas in order to identify and resolve discrepant conditions either by engineering evaluation or physical modification. This walkdown was performed in accordance with Ebasco Site Procedure ASP-IV-141.

The comprehensive walkdown was performed by Ebasco Engineering personnel. Ebasco QA and LP&L QA performed surveillances relative to the effectiveness of the walkdowns. Weaknesses in the walkdown programs identified by the QA surveillances were resolved by retraining and/or rewalking plant areas where obvious program flaws were noted.

Approximately 2,630 separation violations were identified. These discrepancies were resolved in the following manner:

- (a) Approximately 560 were resolved by minor clamp and conduit adjustments.
- (b) Approximately 1210 were resolved by the installation of fire barriers.
- (c) Approximately 860 were resolved by design engineering evaluation for acceptance.

In addition, approximately 18,000 ft. of cable tray covers were installed, thus eliminating many more potential violations by virtue of reducing the required separation distances. No conduit required rerouting as a result of separation violations.

The majority of the deviations recorded were, according to LP&L, the result of installation of non-safety related conduits where procedures did not require inspections for separation from safety related raceway. Ebasco Procedure CP-764 was revised to ensure QC inspection of non-safety related conduit with respect to separation requirements. In addition to the training of walkdown personnel, QC and engineering personnel training was performed.

FSAR Amendment No. 35 issued in May 1984, contained clarification with respect to engineering analysis as a means of accepting deviation from specified separation requirements, and clarification in the use of direct acting tray sprinklers as a means of protection in lieu of maintenance of required separation distances.

LP&L concluded that based on the completion of the corrective action described above, appropriate electrical separation consistent with FSAR commitments and Regulatory Guide 1.75 requirements, will be achieved.

NRC Followup Inspection

This potential finding was reviewed by the NRC inspector and determined to be a violation. This violation will be identified in the NRC Task Force enforcement package to be issued later.

The licensee's response package was reviewed including the results of engineering and QA walkthroughs. Field inspection of several raceway installations was also performed to determine compliance to requirements relative to deficiency identification, installation of tray covers and fire barriers, and required component modifications.

The review of results from engineering walkthroughs, Ebasco and LP&L surveillances, and the inspection of several raceway installations indicates that the licensee's program to assure adequate separation of raceway systems was not totally effective.

Initial engineering walkthroughs of plant areas performed in accordance with ASP-IV-141 were demonstrated to have been inadequate with regard to the identification of raceway separation deficiencies. Subsequent surveillances of these areas by Ebasco and LP&L QA personnel noted additional separation violations which had not been identified by the original walkthrough team. As an example, Ebasco surveillance report TK-1 identified 35 separation deficiencies, of these, only 15 had been identified by the ASP-IV-141 walkthrough. The combined results of Ebasco surveillances indicate that approximately 70% of existing deficiencies had not been identified during the performance of the initial walkthrough.

As a result of these surveillances, the licensee initiated a supplemental walkthrough of several plant areas using inspection teams that included QA personnel.

NRC personnel examined raceway installations in several plant areas and noted that the installation of required tray covers had been accomplished. Additionally, where components required the installation of a fire barrier or physical modification, work was in progress or had been completed.

Nineteen new separation violations were identified by NRC personnel and compared with walkthrough and inspection records to assure that the licensee's program had adequately identified these violations. The comparison revealed that only four of nineteen had been identified during previous inspection efforts. Sixteen of the violations identified by NRC personnel were observed in the cable spread room area. It should be noted that a supplemental walkthrough had not been performed for this area.

During a meeting on June 22, 1984, between the NRC and licensee representatives, LP&L stated that a comprehensive reinspection would be done for separation violations.

LP&L subsequently drafted, approved and released Procedure QASP 19.8, "QA Electrical Raceway Separation Inspection." QASP 19.8 delineated the methods used in inspection and reporting of violations. LP&L QA became the coordinator in the training of personnel and the inspection. LP&L and Ebasco personnel were trained to the QASP 19.8 procedure.

The electrical separation walkdown discovered approximately 5,000 separation violations. Of these about 4,700 were accepted as is or had tray wraps or fire barriers installed. The rest required minor work.

The NRC reinspected the cable spread room, HVAC equipment room, and the B switchgear room and found nine additional separation violations. The nine examples were compared against the list of identified violations compiled by LP&L. All nine examples were on that list.

The NRC inspector feels that the licensee has a grasp on the electrical separation problem. The walkdown effort was extensive which the NRC reinspection findings attest to. The action taken should preclude repetition of this problem.

The electrical separation problem has been reported to the NRC and became Significant Construction Deficiency (SCD) 105. SCD-105 will be closed when all rework necessary has been accomplished.

The CAT item is considered closed since SCD-105 will track this deficiency through completion of all corrective action.

b. Mechanical Construction

1) CAT PEA Finding 2.a

"Contrary to 10 CFR 50, Appendix B, Criteria V and X, and LP&L QA Manual Sections 5 and 10, the applicant has failed to perform activities as prescribed by documented instructions in the following area[s]:

. . . Some pipe supports/restraints have not been constructed in accordance with or properly inspected to design documents (Section III.B.2)."

The specific observations of pipe supports/restraints discrepancies are listed in Table III-4 of NRC Report 84-07.

Licensee Response

In light of the specific observations and concerns raised in the NRC CAT report with respect to support/restraints the following programs were implemented according to LP&L:

- a) A walkdown of 108 tube steel support/restraint members was conducted to determine the extent of concern relative to tube steel size differences versus the as-built redline support/restraint drawing requirements.
- b) A comprehensive walkdown of strut and snubber pipe restraints installed in the Nuclear Plant Island was conducted to identify and correct discrepancies from design installation requirements.
- c) The balance of the supports/restraints were surveyed for obvious discrepancies as part of the general area transfer closeout walkdown.

LP&L stated that area walkdowns were conducted by Ebasco Engineering in accordance with Site Procedure ASP-IV-141. Engineering Discrepancy Notices (EDNs) were generated for any item which could not be corrected during the walkdown and required further evaluation and significant rework. Approximately 56 EDNs were generated. Ebasco QC verified the completion of all identified corrective action. LP&L QA conducted a surveillance of the area walkdowns in order to ascertain the effectiveness of the program. The results of the walkdowns were as follows:

- a) The tube steel sample walkdown noted 8 out of 108 members inspected which deviated from the documented as-built condition. Three members were smaller and five were larger than the design. In all cases the deviations were minor. All deviations, when evaluated by ESSE, were found to be acceptable. NCR 7708 was issued to document the identification and resolution of these discrepancies. Based on the sample results, no further action was deemed necessary.
- b) The strut and snubber walkdown encompassed approximately 2,630 of the 2,873 strut and snubber support/restraints installed in the Nuclear Plant Island. The balance could

not be inspected due to accessibility. Approximately 644 deficiencies were identified, involving 541 supports.

- c) The balance of the support/restraints were surveyed in accordance with ASP-IV-141. Only those supports which were accessible for inspection or that were obviously damaged were documented.

Strut and snubber installations were carefully inspected and LP&L concluded that all identified discrepancies were corrected. All other support/restraint discrepancies noted in the area transfer walkdown program have been corrected. The pipe supports were submitted to plant staff for acceptance.

NRC Followup Inspection

This potential finding was reviewed by the NRC inspector and determined to be a violation. This violation will be identified in the NRC Task Force enforcement package to be issued later.

The inspector reviewed LP&L's response and discussed these findings and corrective actions taken with responsible personnel. Regarding the instance of undersized tube steel identified by the CAT, the licensee performed a reinspection of a random sample of 77 supports/restraints constructed with 108 pieces of tube steel. Three pieces were smaller and five pieces were larger than specified on the drawings. No rework was required. The NRC inspector reviewed the results of this inspection and the calculations/evaluations of the discrepant cases. The NRC inspector considers the actions taken with regard to undersize tube steel and to the specified discrepancies noted by the CAT to be adequate.

However, the concern with the adequacy of the comprehensive area walkdown was not resolved. Approximately 240 struts and snubbers were identified during the walkdown as not installed or inaccessible for inspection. Based on the high percentage (approximately 20%) of supports/restraints that were identified as having deficiencies, the licensee committed to make an additional effort to inspect the 240 uninspected supports/restraints or to evaluate on a case basis their technical acceptability if the typical deficiencies do exist and would not be identified or corrected.

The inspector examined Ebasco QA Surveillances TK-1 through TK-6, daily LP&L QA observation reports and LP&L Construction QA Surveillances 84-15S, 84-17S, 84-21S and 84-22S related to the area walkdown. The Ebasco QA surveillances related only to

electrical and interdiscipline separation, not pipe support/restraint inspections. The approximately 40 LP&L QA observation reports reviewed indicated, in general, that inspectors were following procedures and identifying all problems. However, when discrepancies were noted by the QA observers, there was no evidence/documentation of any corrective action. In one instance, the observation report indicated that there was: no clear definition of inspection areas; the inspectors were not looking at separation violations; and inspectors were unsure of inspection acceptance criteria. These observations were similar to those identified by the CAT. The LP&L Operations QA surveillances did not appear to identify the extensive problems with inadequate electrical separation inspections identified by the LP&L Construction QA group and the NRC reinspection effort described elsewhere in this report. Ebasco Construction QA Surveillances 84-155 and 84-175 were the only ones including support/restraint inspection verification and both noted discrepancies not detected by walkdown teams and deficiencies on reworked items. A Construction QA re-audit of reworked items from Audit W3S 84-65 also indicated a number of new discrepancies.

It was noted that Deficiency Notices (DN's) were not promptly initiated as required by procedures ASP-IV-141 for discrepancies where immediate corrective action was not possible. DN's were written after corrective action was completed when this problem was identified by LP&L Construction QA. This is another indication of a lack of attention to detail in this important final inspection process.

The NRC inspector performed a field inspection of approximately 50 supports/restraints in the mechanical penetration area that had been through the complete area walkdown program. The strut paddle on CCRR-651 was binding in the clamp, locknuts were loose and backed off on CHRR-535 and CHRR-3061, and a cotter pin was broken on snubber CHSR-302.

The licensee's and contractor's QA surveillance/observation reports did not indicate an aggressive, thorough and controlling effort to assure that the comprehensive area walkdown was completely and properly executed. The examples of hardware deficiencies in "inspected areas" noted by the NRC inspector and the problems in electrical separation inspections described elsewhere in this report indicated that the inspection effort was not adequate. Although the technical significance of the problems identified in pipe supports/restraints during the walkdown inspection was relatively minor, the lack of QA oversight effectiveness and thoroughness of inspection was of continued

concern. Further inspection effort was deemed necessary to provide complete confidence in the area walkdown program effort.

LP&L QA subsequently initiated an extensive walkdown of pipe hangers according to LP&L Procedure QASP 19.7, "QA Inspection of Pipe Hanger." This walkdown inspected approximately 3,600 uniquely identified supports/restraints. Out of this amount about 400 required some kind of minor rework. None of the deficiencies were judged by LP&L to have any safety significance.

It appears that LP&L has adequately inspected the pipe supports for as-built discrepancies. The walkdown performed by LP&L gives a high degree of assurance that no safety concern exists in pipe supports. The involvement by QA personnel directly in the walkdown gives added assurance.

This item is considered closed.

2) CAT PEA Finding 5.c

"Contrary to 10 CFR 50, Appendix B, Criterion X, and LP&L QA Manual Section 10, the applicant has not properly executed an inspection program in the following area[s]:

. . . As-built drawings for HVAC seismic restraints do not accurately reflect the actual installation (Section III.B.3)."

The CAT inspector found that clip angles used to attach HVAC duct restraint members to embedded plates had in many instances been modified (shortened) from sizes specified on construction drawings because of interference. A similar problem was noted where the ends of angles were welded to plates on three sides (all that is specified on design drawing typical details), but are specified on The Waldinger Corp. installation drawings as welded on four sides.

Licensee Response

LP&L stated that all five HVAC seismic supports exhibiting clip to embedded plate connections deviating from installation drawing requirements were all partially or completely installed by Waldinger. The clip angle to embedded plate connections differed from the installation drawings; however, they were in conformance with design drawing alternate connection details. Although procedures required Waldinger's QA inspectors to inspect the installation drawing requirement, it is evident that modifications to the installation details were accepted based on design drawing requirements.

Installation detail drawings or "shop tickets" were defined on the drawing as supplemental to the design drawing, therefore, acceptance of the modified connection based on design drawing requirements was valid with regard to procedure requirements. Discussions with former Waldinger QC inspectors now employed with Ebasco, confirmed the described process of QC inspection. Procedurally, Waldinger was required to document all changes to installation details. However, minor trim changes to clip angles were not documented as a matter of practice.

NRC Followup Inspection

The inspector reviewed LP&L's response and discussed this concern with responsible engineering personnel. Based on the fact that the noted discrepancies did comply with design requirements, the inspector has no further questions or concerns on this issue.

This item is considered closed.

c. Welding and Nondestructive Examination

1) CAT PEA Finding 2.b

"Contrary to 10 CFR 50, Appendix B, Criteria V and X, and LP&L QA Manual Sections 5 and 10, the applicant has failed to perform activities as prescribed by documented instructions in the following area[s]:

. . . The performed welding inspections for structural welds were found to be deficient with respect to the acceptance criteria specified by the Architect-Engineer (Section IV.B.1)."

Seven of 1900 structural welds inspected, involving 141 pipe support/restraints, were found to be deficient with respect to the specified acceptance criteria. Some of the welds were undersized, had poor weld profile, or were seal welded instead of the required fillet weld. The supports/restraints that had deficient welds were: CCRR-561, CCRR-716, CCRR-1379, CCRR-1381, CSRR-356, SIRR-160, and SIRR-199.

Licensee Response

LP&L stated that Ebasco Engineering inspected the minor pipe support weld discrepancies identified during the NRC CAT Audit. In all cases, the weld joints were determined to be acceptable.

In July-August 1983, LP&L QA and Ebasco QA conducted a sample inspection of pipe support installations. This inspection also involved the identification and evaluation of welding discrepancies including undersized welds. All deviations from acceptance criteria, when evaluated by engineering, were found to be acceptable.

Based on the low number of weld discrepancies identified during the NRC CAT Audit, and the previous sampling conducted by LP&L and Ebasco, LP&L concluded that no further corrective action was deemed necessary.

NRC Followup Inspection

The NRC inspector reviewed the LP&L response to this PEA along with the nonconformance reports (NCRs) referencing the seven deficient welds, and agrees with the Ebasco dispositions of "accept-as-is." The following Ebasco NCRs were examined: NCR-W3-4010, NCR-W3-7600, NCR-W3-7614, NCR-W3-7623, and NCR-W3-7632.

The seven deficient welds represent only 0.4 percent of the total examined. None of the deficiencies represent any safety concern. The seven deficient welds are considered isolated cases.

This item is considered closed.

2) CAT PEA Finding 2.c

"Contrary to 10 CFR 50, Appendix B, Criteria V and X, and LP&L QA Manual Sections 5 and 10, the applicant has failed to perform activities as prescribed by documented instructions in the following area[s]:

. . . One weld on the main steam containment penetration was found to have an internal surface condition which was judged to be unsuitable for the proper interpretation of the required radiographic examination (Section IV.B.11)."

The rejected weld was main steam line containment penetration #1. The weld was identified by radiographic number D22872W3. This weld displayed evidence of root conditions such as melt-through and suck-back in several locations. A total of 98 welds involving 1150 radiographic film were reviewed.

Licensee Response

LP&L stated that due to inaccessibility of the weld, it was not feasible to visually inspect the weld surface and re-radiograph. Therefore, an engineering evaluation was completed to establish the acceptability of the questionable areas.

The engineering analysis was conducted as follows:

- a) Ebasco Materials Application and Mechanical Engineering reviewed the finite element stress analysis performed by Associated Piping to establish the stress levels and direction of loading at the points in question;
- b) Having established the possible physical nature of the questionable areas, a review of the stress levels was performed to determine the acceptability of the questionable areas;
- c) Based upon the stress levels, a fracture analysis was performed to verify the acceptability of the weld.

The analysis was performed according to LP&L to evaluate the critical crack depth and fatigue crack growth of the five observed areas of potential indications. The evaluation showed that under normal, emergency and faulted conditions, throughout the 40-year life of the plant, the fatigue crack growth of the potential indications would not exceed the component thickness and therefore not result in failure of the weld. The analysis was conducted in accordance with ASME Section XI requirements and met the acceptance criteria for flaw analysis of that section.

NRC Followup Inspection

The NRC inspector reviewed the LP&L response to this PEA which included the complete analysis performed by Ebasco and agrees with the results.

The one radiographic film in question should have been rejected and reshot at the time it was taken. However, the weld appears to be adequate. The one objectionable weld film represents only 0.09 percent of the total examined. This is considered an isolated case.

This item is considered closed.

d. Civil and Structural Construction

1) CAT PEA Finding 5.b

"Contrary to 10 CFR 50, Appendix B, Criterion X, and LP&L QA Manual Section 10, the applicant has not properly executed an inspection program in the following area[s]:

. . . the construction inspection of some masonry walls was not commensurate with the assumptions used in the design analysis (Section V.B.6)."

Four masonry walls were selected by NRC CAT inspectors and the inspection documentation requested. For only one of the four walls could an inspection record be provided.

Licensee Response

LP&L responded that in order to resolve the lack of inspection documentation, the following program was implemented:

The seismically supported block walls were visually surveyed and a sample of the walls was subjected to volumetric examination by NDE techniques, to ascertain their conformance to design drawings and specifications.

The visual survey covered the conformance to design requirements shown on the drawings, including type of block, thickness of wall, length and height, and boundary details.

A sample of the hollow block walls was examined by radiographic techniques to reveal the presence of vertical rebar, horizontal Dur-O-Wall (wire truss) and mortar core fill. Three-17 inch wide by 14-inch high film plates were made contiguously along a horizontal strip of each wall sampled, with two horizontal joints included within the height of the plates. In this way, the presence of horizontal Dur-O-Wall between every other course of block and vertical rebar patterns at 4 ft. centers, as required by design, could be established.

All but one of the solid block walls were surveyed on one or both faces by surface interface radar detector to reveal presence of Dur-O-Wall horizontal reinforcement in each of the bottom several courses and vertical diaphragm structural reinforcement at 10 ft. centers for the entire length. One solid block wall was surveyed by chipping into the face of wall.

There are, according to LP&L, 194 seismically supported masonry block walls, 31 of which are "removable" solid block shielding walls and 163 of which are hollow core block walls. A total of 161 walls were visually examined under this program, 30 solid block and 131 hollow block. The remaining walls were either inaccessible or, in one case, not installed due to access requirements during plant start-up. Thirty solid block walls were surveyed by radar and 46 hollow block walls were surveyed by radiography.

Out of the 76 walls subjected to volumetric examination, no repairs were required upon evaluation of the identified NDE discrepancies.

LP&L concluded that the NDE results confirmed that sufficient reinforcing exists such that the walls are capable of withstanding the design loads. The analysis on which this conclusion is based did not take credit for special inspection under the provision of the Uniform Building Code (UBC), and therefore, the lower allowable stresses were used.

The visual examination identified a requirement to repair one block wall by completing the grout installation at one end.

In addition, an acoustical barrier wall panel was found to have several missing nuts on the fasteners to the block wall and will also be repaired.

The two walls mentioned above are being repaired according to LP&L under LCIWA Nos. 008456 and 008457. The missing wall will be installed following plant startup.

NRC Followup Inspection

The NRC inspector has reviewed the response and feels that design matters are involved. Thus, this matter has been referred to the NRC Office of Nuclear Reactor Regulation (NRR) for evaluation. Pending the results of this evaluation this item is considered unresolved. (382/8430-01)

2) CAT PEA Finding 7

"Contrary to 10 CFR 50, Appendix B, Criterion XVII, and LP&L QA Manual Section 17, some inspection and test records were found to be deficient as a portion of the concrete in-process test records for two of the concrete placements sampled were missing (Section V.B.1)."

In two common foundation basemat pour packages (499-S02-6 and 499-S03-13B) a portion of the in-process test records were not available. These test records contain test results for concrete slump, air content, unit weight, and concrete temperature.

Licensee Response

LP&L stated that during the CAT inspection, it was identified that the documentation packages for placements 499-S02-6 and 499-S03-13B were each missing one pump summary sheet. These summary sheets were reconstructed utilizing information contained in the documentation packages.

NRC Followup Inspection

This potential finding was reviewed by the NRC inspector and determined to be a violation. This violation will be identified in the NRC Task Force enforcement package to be issued later.

e. Material Traceability

1) CAT PEA Finding 4

"Contrary to 10 CFR 50, Appendix B, Criterion VIII, and LP&L QA Manual Section 8, the material traceability and control of some fasteners have not been adequate to assure the use of correct parts or material (Section VI.B.1.)."

Of 35 safety-related equipment fastener installations inspected for correct fasteners, 18 were found to have discrepancies such as: a lack of required markings on installed fasteners, lack of required traceability documentation, and data on documentation did not match markings on materials. The following is a list of fastener installations found to have discrepancies:

Item 1: High-Pressure Safety Injection (HPSI) Pump B - traceability data not available for anchor bolts or for pump mounting bolts to base structure.

Item 2: Battery Rack, Room B - traceability records not available to confirm that bolts met requirements.

Item 3: Hydrogen Recombiner - base mounting bolts were marked 316 which conflicts with Westinghouse Drawing

7189019 Rev. 13 which specifies type 304 ASTM A-193 Grade B8.

- Item 4: CVC Charging Pump B, Inlet Flange Joint - different markings on nuts were not traceable.
- Item 5: HPSI Pump A/B, Stuffing Box Flange Joint (Inner) - studs sensitive to magnet and corroded, yet stainless steel is specified. Nuts had different markings and were not traceable.
- Item 6: HPSI Pump A/B, Mounting Bolts - no records available to check traceability of unmarked pump mounting bolts.
- Item 7: HPSI Pump A, Stuffing Box Flange Joint (Outer) - CMTR for nuts (Ht. 19747) does not match material specified on drawing or installed in the field.
- Item 8: HPSI Pump A, Top Flange Joint - different configuration of nuts (some with flat face, others not flat) and different markings on nuts. Not traceable.
- Item 9: HPSI Pump B, Stuffing Box Flange Joint (Outer) - CMTR for nuts does not match material specified on drawing or installed.
- Item 10: HPSI Pump B, Stuffing Box Flange Joint (Inner) - no traceable markings visible on studs. Markings on nuts do not match specified material.
- Item 11: Polar Crane Rail Clamp Bolts - markings on bolt heads were not traceable. Documentation was not found for traceability.
- Item 12: Pressurizer Relief Tank (Quench Tank) Mounting Bolts - markings and records were not available to provide for traceability of these fasteners, or confirm that they were procured from a certified vendor.

The following list of items did not have required code markings as specified on drawings and other documentation for bolts, nuts, and washers:

- Item 13: Safety Injection Tank 1A, Skirt to Ring Girder
- Item 14: Safety Injection Tank 1B, Ring Girder to Structure

- Item 15: Safety Injection Tank 2A, Skirt to Ring Girder
- Item 16: Safety Injection Tank 2A, Ring Girder to Structure
- Item 17: Safety Injection Tank 1B, Skirt to Ring Girder
- Item 18: Safety Injection Tank 1B, Ring Girder to Structure

Licensee Response

The licensee addressed the 18 discrepancies as follows:

- Item 1:
Traceability data for all HPSI Pump B anchor bolts was transmitted to the NRC.
- Item 2:
Battery Rack, Room B, bolts' certifications (certs) have been obtained from the vendor.
- Item 3:
DN-SQ-2349 accepted the Hydrogen Recombiner base mounting bolt installation as is.
- Item 4:
All CVC Charging Pump B, inlet flange joint nuts have the required markings.
- Item 5:
The HPSI Pump A/B stuffing box flange joint studs were accepted as is by NCR-W3-7643. All nuts had acceptable markings.
- Item 6:
The Cert for the pump assembly is available onsite.
- Item 7:
As recorded on NCR-W3-7643, the incorrect CMTR for HPSI Pump A staffing box flange joint was voided from the documentation package. The nuts are correct as installed.
- Item 8:
The one HPSI Pump A top flange joint nut which had no markings is being replaced with a nut of the correct grade.

Item 9:

Refer to Item 7.

Item 10:

The correct markings exist on the nuts as installed.

Item 11:

Certs of Compliance have been furnished to the NRC for the Polar Crane rail clamp bolts.

Item 12:

Replacement bolts have been requisitioned for the Pressurizer Relief Tank and will be installed upon their receipt.

Item 13, 15 and 17:

Upon proper paint removal the corrective markings were found on the large majority of bolts and nuts. This, coupled with the installation contractor's requirements in Procedure 775-67 to install the subject bolts and nuts, gave adequate assurance that the correct material was installed in Safety Injection Tanks 1A, 2A, and 1B.

Item 14, 16 and 18:

Upon proper paint removal, correct markings were found on 36 of the 49 studs which could be absolutely determined. This, coupled with the J. A. Jones procedural requirements for stud installation, gave adequate assurance that the correct material was installed in Safety Injection Tanks 1B, and 2A.

NRC Followup Inspection

The NRC inspector reviewed the data submitted by LP&L and is satisfied with the corrective action taken. The small number of actual material traceability deficiencies appear to be isolated cases.

This item is considered closed.

f. Design Change Control

1) CAT PEA Finding 1.b

"Contrary to 10 CFR 50, Appendix B, Criterion III, and LP&L QA Manual Section 3, design control has not been maintained as the applicant has:

. . . Failed to review design changes in a manner commensurate with the original design review. It was found that the engineering dispositions of four contractor information requests approved a change to the plant design without an approved design change document (Section VII.B.3)."

Licensee Response

The licensee addressed each item as follows:

Item 1 Fischbach & Moore Request for Information (RFI) 5088

Fischbach & Moore was directed by memorandum F-54412-AST, dated July 29, 1981, to replace unqualified valve position switches. This work was performed between August 1981 and March 1982.

RFI-5088 was issued on April 20, 1982, after the installation was completed and the response noted that the switches were already installed.

The design change required for this work consisted of the valve vendor revising their drawings to indicate the correct position switch model numbers. The vendor drawings were revised between June 3, 1981, and April 8, 1982, for all of the valves listed on memorandum F-54412-AST.

At the time of the response to RFI-5088, all required design changes were completed. LP&L does not believe the disposition to this RFI approved a change to plant design without the approved design change document.

They feel that directing the contractor to replace the position switches by memorandum was incorrect and has been addressed in NCR-7638.

Items 2&3 Mercury Information Requests (IRs) 47 and 63

These IR's did approve new support designs of seismic restraints issued by Mercury without the proper design review and approval by Ebasco Design Engineering.

This condition was detected and NCR-2333 was issued to document and correct the situation. As noted in the CAT report, a subsequent stop work order was also issued due to this problem.

LP&L feels there is no concern with regard to the two voided support details cited in the CAT report, having been used without the proper design review for the following reasons:

- a) All supports installed prior to the stop work order were identified by Mercury Engineering. These supports were addressed on NCR-2333;
- b) All seismic supports undergo QA review. They are required to be installed per a design engineering approved detail. If a support had been installed to an unapproved detail, it would have been discovered by this review. The quality assurance review ensures that all seismic supports are per approved details.

Item 4 Mercury Request for Engineering Information (REI) 1464

Deviations from design requirements such as the one-inch low point in the instrumentation impulse line noted in this REI were normally documented and approved by use of nonconformance reports according to LP&L.

REI 1464 incorrectly approved a design change after Mercury installed the tubing without the issue of a nonconformance report. The tubing was reworked to replace physically damaged sections, as noted in Mercury NCR's 436 and 3516, and in the process of this rework the existing low point was removed thereby nullifying the incorrect approval in REI-1464.

NRC Followup Inspection

The area of design changes being performed without an adequate design change document issued is an area that the Waterford 3 NRC Task Force reviewed. An assessment of the generic implications of this finding will be made by the licensee in response to Item No. 14, documented in NRC letter dated June 13, 1984.

This item is open pending resolution of the Task Force finding.
(382/8430-02)

2) CAT PEA Finding 3.a

"Contrary to 10 CFR 50, Appendix B, Criterion VI, and LP&L QA Manual Section 6, the applicant has failed to effectively perform the following document and design control activity[ies]:

. . . Design changes were not being incorporated into all affected design documents. It was found that three design change documents did not identify all of the documents affected by the respective changes (Section VII.B.2)."

It was found that DCN-MP-247 did not list seven piping isometric drawings that were affected by a design change. FCR-MP-1446, Revision 0, did not list one of the two affected piping isometric drawings. Also, FCR-CH-1101, Revisions 2 and 3, did not identify that Specification MC-1 was an affected document.

Licensee Response

LP&L stated that a sample review of approximately 100 Seismic Category I piping isometrics was conducted by Ebasco Site Support Engineering (ESSE). Fourteen isometrics contained minor inconsistencies. The inconsistencies were very minor and do not affect system function or stress analysis. Ebasco Engineering has concluded that field installation is in accordance with approved design.

Even though the inconsistencies were minor, according to the licensee, the following corrective action was being implemented to identify other inconsistencies, and to document in Ebasco procedures the present policies relative to piping isometrics:

- a) All Seismic Category I isometrics were reviewed for consistency with mechanical orthographic drawings; and the drawings or isometrics were revised where necessary. This review was conducted as part of the as-built update program.
- b) Orthographic piping drawings were transferred from the New York Engineering home office to ESSE in order to assure that one organization be responsible for revision of both type of drawings, thereby improving consistency.
- c) Engineers and designers were retrained relative to accuracy in updating design drawings, and to ensure that all affected drawings are listed on design change documents.
- d) Piping isometrics are now listed on FCR's and DCN's as an affected document. This policy has been in effect since

prior to the NRC CAT audit of Waterford. Site Procedure ASP-IV-71 was revised documenting design engineering approval of isometrics and requiring the lead discipline engineer to identify isometrics as an affected document on design change documents.

- e) The Ebasco Engineering Procedure E-65 listing of applicable engineering procedure relative to Waterford was updated to document the lead discipline engineers responsibilities relative to identifying all affected drawings on design change documents.

NRC Followup Inspection

The NRC inspector reviewed the LP&L response to this finding.

The failure to incorporate approved design changes into all affected design documents was due to a procedural breakdown. The applicable Ebasco procedures (E-69 and ASP-IV-71) were revised to clarify and emphasize requirements to identify all affected documents including piping isometrics, on the design change documents. Personnel were retrained to ensure that they understand the requirements that all significant changes are incorporated into the affected documents. The Ebasco review of 100 piping isometrics identified only minor unincorporated design changes, none of which affected system function or stress analyses.

The examples found appear to have no safety significance. Corrective action appears adequate to resolve the discrepancies.

This item is considered closed.

3) CAT PEA Finding 3.b

"Contrary to 10 CFR 50, Appendix B, Criterion VI, and LP&L QA Manual Section 6, the applicant has failed to effectively perform the following document and design control activity[ies]:

. . . Design changes were not being incorporated into a construction specification. It was found that a large number of design changes were posted against Specification MC-1 without revisions to the specification being performed (Section VII.B.2)."

Licensee Response

LP&L reported that Ebasco Construction Engineering generated installation specifications as an aid to the installing

contractors. These specifications were in addition to the design specifications (i.e. 1564.100) and were issued as a contract document.

The requirements that were contained in these specifications (MC-1, PC-1, etc.) were incorporated into the contractors procedures and travellers. No QC inspection was performed to these documents. In addition, no designs were issued due to these documents.

LP&L concurred, that with 16 FCR's outstanding, that a person would have difficulty in knowing the current requirements. The revision of these construction specifications was performed.

NRC Followup Inspection

The NRC inspector reviewed the LP&L response to this finding.

The corrective action taken by Ebasco appears to adequately resolve this CAT finding. Since no QC inspection was performed to MC-1, nor were any designs issued due to it, there appears to be no safety significance to this finding.

This item is considered closed.

4) CAT PEA Finding 3.c

"Contrary to 10 CFR 50, Appendix B, Criterion VI, and LP&L QA Manual Section 6, the applicant has failed to effectively perform the following document and design control activity[ies]:

. . . Design changes on design drawings and an installation specification were not being identified at the location of work activity. It was found that DCNs and FCRs were not being posted against drawings used by Ebasco design disciplines. In addition, it was found that Document Control was not auditing its files against Ebasco's Drawing Close-out Schedule (Section VII.B.1)."

Discrepancies found during the review of drawing stick files which contained controlled documents were:

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

Design Group	DWG #	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

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

Design Group	DWG #	Revision Found	Latest Revision
ESSE Mechanical	G432 sh8	7	8
ESSE Mechanical	EMDRAC	3	4
	4305 1893		
ESSE I&C Mech.	G161 sh2	6	14
ESSE I&C Mech.	G164 sh3	8	10
ESSE I&C Mech.	G164 sh4	Missing	2

During the review of Ebasco's Drawing Close-out Schedule, it was found that the list of outstanding FCRs and DCNs on various drawings were incorrect. The following are examples or errors in the Drawing Closeout Schedule of January 20, 1984.

Drawing	Improper FCR/DCN Listing	FCR/DCN Not Listed But Outstanding
G435 sh6 R3		FCR-IC-P-602
G190 sh3 R3		
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
G320 sh1 R8		FCR-E-1444

G320 sh1 R10
G432 sh5 R7

DCN-IC-1179 R2

FCR-E-1444
FCR-IC-P-37

Discrepancies found during the review of General Specification MC-1, "General Specification Covering Installation of Mechanical Equipment" were:

- a) A copy of Specification MC-1 did not have the correct posting upon receipt from field Document Control. Specifically, the revisions of FCR-CH-1101 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.

- b) 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.

Licensee Response

The CAT review identified concerns relative to the process by which drawings were posted with applicable design changes and drawing stick file maintenance in general. Additional concern was expressed over inconsistencies between the drawing closeout schedule and the document control drawing control cards. In response to the CAT concerns, the following actions have been taken according to LP&L:

- a) The number of Ebasco control numbers maintaining and receiving controlled drawings has been reduced to three. These three control numbers are 301, 302, and 303 and have been established as satellite drawing libraries;
- b) The personnel assigned the responsibility for posting and drawing file maintenance of the drawings distributed to the

satellite libraries are assigned to Ebasco Document Control. Ebasco Document Control is, therefore, directly responsible for assuring that the drawings are properly posted and maintained;

- c) Ebasco Document Control is now responsible for updating the New York Drawing Closeout Schedule (DCS) relative to outstanding FCR/DCN's and drawing revision numbers to assure that the DCS concurs with document control's records. The DCS was updated and sent to Ebasco New York for incorporation and reissue on an established monthly schedule;
- d) Ebasco designers in New York reviewed the updated DCS received from Ebasco Site Document Control for accuracy and conformance to their records. Additionally, as drawings are revised, either by Ebasco Site Support Engineering or Ebasco New York, copies of the site document control drawing control cards are obtained and any discrepancies between the drawing control cards and the drawing revisions relating to incorporation and/or still outstanding FCR/DCN's are corrected.

NRC Followup Inspection

This potential finding was reviewed by the NRC inspector and determined to be a violation. This violation will be identified in the NRC Task Force enforcement package to be issued later.

A random sample of 20 drawings and specifications in satellite drawing library 301 were examined by the NRC inspector for revision number and design change postings against the drawing control cards. Two of the drawing control cards were unavailable for review, as they were part of packages being transferred from Ebasco to LP&L. The information on the remaining 18 was consistent with the documents reviewed.

The corrective action taken appears adequate to preclude recurrence of this noncompliance.

This item is considered closed.

5) CAT PEA Finding 3.d

"Contrary to 10 CFR 50, Appendix B, Criterion VI, and LP&L QA Manual Section 6, the applicant has failed to effectively perform the following document and design control activity[ies]:

. . . Changes to a construction installation specification were reviewed and approved by an organization different than the organization that performed the original review and approval. It was found that FCRs affecting Specification MC-1 were reviewed and approved by engineering rather than the construction organization that originally reviewed and approved it (Section VII.B.2)."

Licensee Response

The CAT report states that changes to Specification MC-1 were approved by field engineering when it was originally prepared by construction engineering with review by quality assurance and the construction manager.

LP&L stated that all changes to MC-1 were reviewed and approved by the senior resident engineer (construction engineering), the project superintendent, the lead ESSE discipline engineer and the supervising engineer (field engineer) including the specific FCR's referenced in the CAT report. The above approval signatures demonstrated that the control measures for the changes were commensurate with and exceeded those applied to the original document.

NRC Followup Inspection

The NRC inspector reviewed the LP&L response to this finding and met with LP&L and Ebasco personnel to discuss the corrective action. They confirmed that the senior resident engineer is in construction engineering and the project superintendent is in the construction department reporting to the construction manager.

It was also determined that QA review and approval on design changes are not required when the changes are determined by the construction and engineering to have no quality assurance implications.

The corrective action appears adequate and since the design change review was equal or greater than the original documents, no noncompliance exists.

This item is considered closed.

g. Corrective Action Systems

1) CAT PEA Finding 6.a

"Contrary to 10 CFR 50, Appendix B, Criterion XVI, and LP&L QA Manual Section 16, the applicant has failed to effectively perform the following corrective action activity[ies].

. . . Adequate corrective action has not been taken for Region IV identified discrepancies regarding the identification and evaluation of potential pipe to structure clearance problems, additional loads placed on HVAC and electric cable tray seismic supports, the conduct of electrical maintenance, and deficient shopwelds in American Bridge structures (Section VIII.B.4)."

Also included as an example, but not listed in Appendix B, is supports/restraints as-built configuration discrepancies.

Licensee Response

LP&L stated that a documentation review was performed for NRC identified violations for Waterford 3 from 1971 to present. This included approximately 128 items.

LP&L site procedures have been revised and created to take the following action on NRC identified violations/deviations:

- a) Track response time limit.
- b) Coordinate development of corrective action steps and state results achieved.
 - Verify scope of corrective action is adequate for specific problems.
 - Scope must be specific and documented.
 - Review to determine possible generic implications related to the specific problem.

- c) Coordinate development of corrective steps to avoid further violations.
 - Review to insure generic corrective action is taken if necessary.
- d) State full compliance commitment date.
 - Track and audit to ensure full compliance has been achieved by stated date.
- e) Perform review to verify overall response addresses identified problems.
- f) Perform field verification when possible.
- g) Review for trends (collective generic check)
 - Review to determine if problems similar in nature were identified by NRC or other organizations.
- h) Verify continued compliance with commitment.
 - Perform two followup audits.
- i) Perform verification of response during past 3½ years to ensure commitments are still in force.

In addition, the NRC expressed concern about the proper handling by LP&L of other regulatory commitments and requirements and this response presents LP&L's plan of action to resolve this concern.

LP&L has implemented a commitment management program as partially described in Procedures NSP-101, "Handling of Incoming and Outgoing NRC Correspondence", and NSP-106, "Licensing Commitment Tracking System". [Note: Regarding the recent effective dates, these procedures were originally Nuclear Administrative Procedures (NAP's) and have been recently changed to Nuclear Services Procedures (NSP's)]. Numerous other departmental procedures are being used to assure that questions and problems are being resolved and corrective actions tracked until fully implemented. One example of these procedures is UNT-4-029, "Handling of Plant Action Items," which incorporates a computer system with the flexibility to record, track and monitor any type of commitment, requirement or action item.

The Licensing Commitment Tracking Program has been in place since the end of 1982 with improvements implemented as the need

became evident. One recently implemented program improvement has been the formalization of the commitment closure verification process. A closure form is used that requires the specific inclusion of applicable documentation substantiating the closure, and review/approval by the cognizant individual, the supervisor/manager, and the responsible licensing engineer. An active commitment is tracked from initiation to final approval of the closure form and then until the NRC has closed the issue, if applicable.

The major deficiency of the present program is the possible failure to maintain a commitment active for followup verification to ensure it continues to be properly implemented until it is formally voided, regardless of the duration. The QA/Corrective Action response adequately provides this follow-through for NRC identified violations and deviations but requires additional scope to cover other types of commitments. Commitments of a continuing nature, requiring implementation in procedures and programs, are of concern here. LP&L has expended considerable efforts toward researching existing documents for commitments and disseminating the information for use in procedural/program development. A bridge between this front-end effort and the continued followup efforts is what is needed to complete the continuity of the Commitment Management Program.

To this end, LP&L has initiated a Commitment Management Task Force to fully analyze the adequacy of LP&L's current commitment management activities and to recommend actions to meet the present and long-term needs. Special attention is being given to assurance that all current commitments are known and will remain in effect as long as necessary.

The issue is generic to other areas where commitments are made to NRC for nonconforming conditions, I.E., LERs, I&E Bulletins, Construction Deficiency Reports, etc.

NRC Followup Inspection

This potential finding was reviewed by the NRC inspector and determined to be a violation. This violation will be identified in the NRC Task Force enforcement package to be issued later.

The NRC inspector reviewed the licensee's submittal and examined the five examples of inadequate corrective action in greater detail. The five examples are listed below with the applicable section of this report where each is described and analyzed in greater detail:

- Additional loads placed on HVAC and electric cable tray seismic supports (Section 3.a).
- Discrepancies in supports/restraints as-built configuration (Section 3.b).
- Inadequate care and maintenance (Section 4.a).
- Peden Steel deficient shop welds (Section 4.c).
- Piping to structure clearance problems (Section 4.b).

It appears that Peden Steel was erroneously listed as a subcontractor of American Bridge (AB). According to a letter dated June 22, 1984, from AB to LP&L, American Bridge had no responsibility for Peden Steel's shopwelding activities. Thus, this item will not be included as an example of inadequate corrective action taken by American Bridge.

The corrective action appears adequate to prevent this finding from recurring.

This item is considered closed.

2) CAT PEA Finding 6.b

"Contrary to 10 CFR 50, Appendix B, Criterion XVI, and LP&L QA Manual Section 16, the applicant has failed to effectively perform the following corrective action activity[ies]:

. . . Some nonconforming conditions are not being properly documented and evaluated through the Corrective Action Program (Section VIII.B.2)."

Five Ebasco Discrepancy Notices (C-0365, C-0367, C-0383, C-0388, C-0393) and two Ebasco Engineering Discrepancy Notices (EC-1502, EC-1519) should have been upgraded to NCR status but were not.

Licensee Response

LP&L stated that memo W3QA-27995 dated March 26, 1984 was issued to all appropriate QA and QC personnel directing them to be more observant on the review of the contents of discrepancy notices as well as the corrective action. In addition, a training class was held on May 10, 1984, with QC and QA personnel to ensure an understanding of what constitutes a nonconformance.

NRC Followup Inspection

The area of lower tier corrective actions not being upgraded to NCR status is an area that the Waterford 3 NRC Task Force reviewed. An assessment of the generic implications of this finding will be made by the licensee in response to Item No. 4, documented in NRC letter dated June 13, 1984.

This item is open pending resolution to the Task Force finding. (382/8430-03)

4. NRC Region IV Followup To Construction Appraisal Team's (CAT) Non Potential Enforcement Action Findings

The NRC CAT made several findings that were deemed at that time to not be significant enough to warrant becoming a potential enforcement action finding, and were not closed out by the CAT inspector during the inspection. In addition, this inspection reviewed a sampling of those CAT findings that were previously closed out.

The specific items in this report are addressed by discipline and the specific page of NRC Inspection Report 50-382/84-07 where the finding appears will be referenced.

a. Electrical and Instrumentation Construction

1) CAT Finding (Pages II-2 and II-3)

A number of Fischbach and Moore quality control checklists had the electrical separation attribute "accepted" even though fire barriers had not yet been installed.

NRC Followup Inspection

This item is addressed as part of the overall electrical separation problem described in PEA 5.a (Section 3.a).

2) CAT Finding (Page II-3)

Five Ebasco QA surveillance reports initiated between July 1983 and the present indicated that no deficiencies of electrical separation criteria were found even though many of these areas had deficiencies identified by the CAT inspectors.

NRC Followup Inspection

This item is addressed as part of the overall electrical separation problem described in PEA 5.a (Section 3.a).

3) CAT Finding (Page II-14)

Auxiliary component cooling water (CCW) pump motor 3B5S was installed using hold down bolts which were of indeterminate material.

Licensee Response

The licensee had all five CCW and Aux. CCW pumps inspected for motor capscrew identification marks. Three had no marks, nine were marked "B7", and eight were marked "A325". All of these capscrews are 7/8" x 2 $\frac{1}{2}$ " long. The manufacturer did not specify a material grade for these capscrews on any drawing or other documentation available onsite. These are not pressure-retaining bolting materials, and are not governed by the ASME Code in effect. All of these capscrews were torqued to 280-300 ft-lbs as required by the installation manual, without failure.

A325 and B7 bolts were considered adequate for the intended service. The three with no visible marks were chemically analyzed and found to be A307 bolting. The three bolts had been replaced with A193 and B7 bolts which were of a higher strength than A307. Thus, they were left as hold down bolts.

NRC Followup Inspection

A review of LP&L's response shows that only three bolts were indeterminate. The three were found to be also adequate for their intended application. This finding appears to have no safety significance.

This item is considered closed.

4) CAT Finding (Pages II-14 and II-15)

The inspectors observed that six safety related motors had not been maintained in accordance with procedures. Specifically, the maintenance records indicated that insulation resistance checks (meggers) had not been performed at intervals required. The CCW pump motor 3AB4S received its last megger in October 1982, the auxiliary CCW pump motor 3B6S had been meggered only once (December 1982) between September 1982 and February 1984, and none of the six motors had been meggered later than April 1983.

Although the current revision of Maintenance Procedure ME-4-702 dated October 1982, does not specify a frequency for the insulation resistance test, the NRC CAT inspectors were shown concurrent memorandums with frequencies ranging from monthly to quarterly to once every 18 months. None of these test

frequencies, however, were consistent with the maintenance records or with procedure ME-4-703 which replaced ME-4-702 in January 1984. ME-4-703 requires a megger to be performed on motors out of service longer than one month. It also states that the service status of the motors is to be verified with the control room "Out of Service" log, which the NRC CAT inspectors were verbally informed does not exist.

In connection with this issue, electrical maintenance records covering a four month period from September through December 1983, could not be located by the applicant. These records document the electrical maintenance activities for three plant areas and involve over 200 components.

Discussions with the applicant concerning this matter revealed that electrical maintenance activities had not been performed during reorganization of their maintenance group. However, mechanical maintenance records during the period were available for the six motors.

Licensee Response

The licensee stated that the resolution to the problem was as follows:

- a) ME-4-702 was deleted and replaced in full by ME-4-703.
- b) ME-4-703 was revised to clarify the procedure with respect to the frequency for meggering and conditions for which meggering should not be performed.
- c) Maintenance personnel in the electrical department were counseled and trained on the appropriate methods for documenting the results of preventative maintenance to include these cases where maintenance is not performed or rescheduled.

NRC Followup Inspection

The NRC inspector reviewed the LP&L response to this CAT finding. It appears that the lack of meggering was a conscientious decision made by the maintenance department which was acceptable under both procedures (ME-4-702 and ME-4-703). However, these procedures require documentation and justification for this action, which was not done in all cases. There does not seem to be a safety concern to this finding since the maintenance on the motors was not neglected but instead a minor procedural violation in not documenting the decision not to megger.

This item is considered closed.

This finding by itself is not significant but a similar finding identified by NRC Region IV in Inspection Report 50-382/82-05 dated April 7, 1982, raises concern over LP&L's ability to take adequate corrective action. This area is discussed further in the response to PEA 6.a (Section 3.g).

5) CAT Finding (Page II-15)

A review of electrical penetration documentation revealed that the review signature of an Ebasco Vendor QA representative on a Conax test data sheet was dated two weeks before they were signed by the Conax technician and the QA supervisor.

Licensee Response

The licensee reviewed 56 documentation packages and found 11 with dates of Vendor QA review prior to the dates on the Conax records.

LP&L responded that Conax procedure IPS-150 states that the data will be recorded as the test is performed. There is no procedural requirement to obtain all Conax signatures prior to submittal to Ebasco QA for review of test data results.

NRC Followup Inspection

The NRC inspector reviewed the documentation submitted by LP&L. The signing of the test sheets by vendor personnel after the Ebasco QA representation appears odd but has no safety significance. The actual tests were witnessed by Ebasco and since procedures do not require vendor signatures at the time of the tests there was no procedural violation.

This item is considered closed.

6) CAT Finding (Page II-15)

The NRC CAT inspectors observed two 4160V breakers which appeared to have been installed in the wrong cubicles of switchgear 3B3-S. Cubicle 1S contained a circuit breaker labeled as the isolation breaker for containment spray (CS) pump motor B while the switchgear identification for cubicle 4S was low pressure safety injection breaker.

Licensee Response

The licensee review of the 4160 switchgear breakers in question revealed that one of the UNID identifier tags was missing and the other was placed on the wrong breaker. As a precaution 234 other switchgear cubicles were inspected for proper breaker identification.

They found no instances where any breakers were incorrectly installed with respect to their intended function. Several instances of missing UNID numbers were noted (23 in all) and a tag request has been initiated to add the UNID numbers to the items without numbers.

LP&L stated that tagging and identification and the removal or damaging of tags has in the past been previously identified as a generic concern. Experience has shown that this problem will diminish significantly as commercial operation approaches so there is not sufficient cause for a special corrective action effort. Operators routinely report missing labeling for correction as a function of normal operating procedure and therefore provide reasonable assurance of a minimum amount of recurrence in the future.

NRC Followup Inspection

The licensee's response package was reviewed and a physical inspection of 4160V breakers for the containment spray and low pressure safety injection systems was performed.

The licensee's response details the results of an inspection of 234 switchgear cubicles. The inspection found that in each case the cubicle breakers had been installed correctly.

The inspection also identified 23 breakers which did not have UNID tags. Although not required by operational procedures the applicant has initiated a tag request to replace missing UNID numbers.

The examination of 4160V containment spray and low pressure safety injection breakers by NRC personnel found that these are now properly labeled. The mislabeling of the breaker is considered an isolated case.

This item is considered closed.

7) CAT Finding (Page II-16)

During the examination of flow control valve 2SI-V1547B-3 NRC CAT inspectors noted approximately 1/4 inch of water in the Limitorque compartment of the valve. At the time of inspection this compartment was sealed and dry on the outside. As a result of this observation, the applicant issued Potential Problem Report 0019 to evaluate and correct this condition.

Licensee Response

Potential Problem Report (PPR) 19 identified that some cable strands were not terminated for the space heater power cable to

operator 2S1-V1556, and that condensate was forming in valve operator 2S1-V1547. The startup engineer issued CIWA 841439 to correct the problems. The cable was reterminated. However, the condensation was found only on the outside of the operator, not the inside. The CIWA is now closed.

LP&L electrical maintenance also inspected ten safety related motor operated valves chosen at random. One had a heater missing and one had a heater not working. No water was found in any. From this result LP&L initiated an inspection of all safety-related valves for operable heaters.

NRC Followup Inspection

The NRC inspectors examined valve operator 2S1-V1547 and found no moisture whatsoever. In addition, it appeared that the only way moisture, to the extent discovered during the CAT inspection, could have entered the valve operator was through an open electrical conduit during construction. This finding appears to be an isolated case. However, the inoperable and missing space heaters discovered in LP&L's limited sample was of concern.

A subsequent inspection of all Limitorque operator space heaters, documented in CIWA-9388, showed numerous heaters either missing or inoperable. In addition it was found that the limit switch and motor space heaters are not fully qualified in accordance with IEEE-323 criteria, but are energized from Class IE power supply.

This item was reported to the NRC on August 21, 1984, pursuant to 10 CFR Part 21. The licensee has made this finding Significant Construction Deficiency (SCD) No. 117.

The original CAT finding concerning water in the valve operator compartment appears to be an isolated case caused by construction activities before all electrical conduits were installed. This item is considered closed.

The qualification of space heaters will be handled through the closure process for SCD-117.

8) CAT Finding (Page II-18)

Tube coupling welds in lines from flow transmitter CC-5570AS were not staggered per requirements. The applicant issued Potential Problem Report 0091 to document this condition.

Tubing lines PT-SI-0311 and PT-SI-0313 were found to have coupling welds which were not staggered in accordance with requirements and tubing clamps missing in the reactor containment building (RCB) between elevations +46 feet and +80 feet near the safety injection tank. The applicant had previously issued DN SQ-1617 to document missing clamps but had failed to identify the unstaggered coupling welds. As a result of this observation, Potential Problem Report 0023 was issued to document these welds.

Licensee Response

LP&L stated that the requirement for staggering couplings in instrument sensing lines contained in Instrumentation and Control Design Document LOU-1564, B-430 is as follows:

"Tubing joints shall be staggered, one from the other, inside the tube track and placed as close to a support as possible."

This requirement was imposed so that welds or compression fittings could be inspected with minimal effort, thereby minimizing construction costs. The staggering of tubing couplings has no effect on the physical integrity of the installation.

The tube welds for CC-5570AS were inspected and accepted as documented on Mercury QA OCR-1880. The tubing welds for PT-SI-0311 and PT-SI-0313 were inspected and accepted on Mercury QA OCR-1724.

Since documentation exists which certifies that all welds were inspected where required, and since the requirement for staggering welds was to facilitate inspection, this finding is not a violation of design requirements or design intent.

NRC Followup Inspection

The NRC inspectors reviewed LP&L's response and determined that this finding has no safety significance.

This item is considered closed.

b. Mechanical Construction

1) CAT Finding (Pages III-2)

Discrepancies were noted where three valve weights specified on stress isometrics were less than actual weights. Errors on

stress isometrics had been noted by the licensee's contractors during previous walkdown inspections. Approximately 100 out of the total of 403 stress problems identified had been modified by site engineering without updating home office stress isometrics on minor items. These facts indicated that LP&L should verify the accuracy and adequacy of information on Ebasco stress isometrics and the interface between site and home office stress analysis organizations.

Licensee Response

LP&L stated that stress isometric CC-185-84 was revised to correct the three valve weight discrepancies identified during the CAT inspection. The discrepancies stemmed from not indicating the associated flange weights for the wafer type butterfly valves. In all three cases the weight of the associated flanges were already considered in the support/restraint design.

The minor changes that were accepted by ESSE stress analysis personnel on the approximately 100 of the 403 calculations were sent to the home office. This will avoid the concern that any future analyses might miss the incorporation of these minor changes. As a result, all field identified changes accumulated from the as-built review programs will be available to both the home office and the site during any future piping revisions.

In addition, Engineering & Nuclear Safety verified the accuracy and adequacy of information on Ebasco stress isometrics and the interface between site and home office stress analysis organization.

NRC Followup Finding

The inspector reviewed LP&L's response to this item, the actions taken by Ebasco and the review efforts in progress. Minor changes made by site personnel have been forwarded to the Ebasco home office and, thus, all as-built information will be consistent and up to date for future calculations/evaluations.

All 403 Seismic Category I pipe stress analysis calculations have been re-reviewed to assure that correct valve weights were used in the analysis. This re-review was a combination of continuing as-built reviews and efforts initiated as a result of the CAT findings. The results indicated 27 calculations affected by valve weight discrepancies which subsequently required the review of 113 pipe supports/restraints. No modifications were required.

In addition, Ebasco reviewed approximately 100 stress isometrics for consistency with mechanical orthographic drawings and identified 14 minor inconsistencies. The NRC inspector reviewed five of these inconsistencies and affirmed their significance as minor. Regardless, LP&L has committed to a review for consistency of all Seismic Category I isometrics. Other program changes are also being implemented to improve revision of drawings and incorporation of change documents.

Based on the improvements in the Ebasco site/home office interface regarding stress isometrics and the results of the complete review of stress isometrics for proper valve weights, the NRC inspector has no further questions or concerns on this issue. This finding appears to have no safety significance.

This item is considered closed.

2) CAT Finding (Page III-3)

The CAT inspector found several hydrostatic/pneumatic test packages which contained numerous identified concerns and open items. Each of the deficiency reports had been closed out, and the test packages found acceptable and complete based upon the referencing of Ebasco Memorandum W3-QAIRG-1191. This internal Ebasco memorandum was actually a summary of unresolved deficiencies identified in the deficiency reports of various test packages. This memorandum also contained brief, handwritten nondescript closures for some deficiencies. Other unresolved deficiencies were not addressed. Further, many deficiencies and even hydrostatic/pneumatic test packages which were not identified in Ebasco QAIRG-1191 were, nonetheless, closed out by referencing the memorandum. Thus, it could not be assumed that the memorandum was inclusive of all deficiencies of all test packages. A number of identified deficiencies referred to ESSE memorandums for additional information. These ESSE memorandums, in actuality, were speed letters (non QA documents) which contained requests for information and responses that required engineering dispositions or changes to QA documents.

Overall, the dispositioning of deficiencies was in a manner which resulted in a fragmented documentation trail.

Licensee Response

The licensee stated that all discrepancies relative to hydrostatic test packages have been re-reviewed. Each

discrepancy will be dispositioned on an individual basis rather than rely on the generic resolutions defined in QAIRG-1191.

NRC Followup Inspection

The NRC inspector reviewed the information submitted by LP&L. The response appears adequate to assure that all deficiencies are properly dispositioned on an individual basis. This finding appears to have no safety significance.

This item is considered closed.

3) CAT Finding (Pages III-2 & III-3)

Several instances were noted during the piping walkdown and support/restraint inspections where the clearance between piping and adjacent structures did not meet the criteria specified in Design Change Notice (DCN) NY-MP-804. Most of these instances had been previously identified by various walkdown activities and resolved by engineering. Region IV inspectors had issued a Notice of Violation in April 1983, citing the lack of acceptance criteria for potential clearance problems. The applicant, in the response to the violation, stated in May 1983 that DCNs had been issued to preclude recurrence of clearance problems in future installations. These DCNs required that contractors notify and obtain approval from Ebasco engineering prior to installing anything that violated specific clearance criteria. However, when requested by the NRC CAT inspectors, no evidence could be provided of any occurrence where prior approval had been requested or obtained since the issuance of the DCNs in early May 1983. A review of walkdown documentation which identified clearance concerns revealed that the concerns had been dispositioned in a reasonable engineering manner. However, it did not appear that contractors were following procedures for prior identification and approval of interferences, nor were commitments to the NRC met to assure that all post-walkdown interferences were properly identified and evaluated.

Licensee Response

As a result of Ebasco QA Surveillance No. 1 and the concerns raised by the NRC during the CAT Audit, supplemental walkdowns for interdisciplinary clearance were conducted as part of the Ebasco Area Transfer Walkdown Program in accordance with Ebasco Site Procedure ASP-IV-143. In addition, a walkdown targeted specifically at Seismic Category 1 piping to structural clearance was initiated by ESSE in accordance with Ebasco Site

Procedure ASP-IV-82. As a result of these two recent programs, approximately 1060 potential interactions were evaluated. Only six required minor rework of the adjacent structures. Five interferences involved the coping of platform grating, and one pipe support/restraint modification was required.

New installations will be checked for clearances in accordance with the latest design criteria. A signoff sheet will be inserted in each construction work package. In addition, training of construction engineering and supervisory personnel has been conducted in order to ensure understanding of the criteria.

NRC Followup Inspection

The inspector reviewed LP&L's response and discussed corrective actions with responsible engineering personnel. A reinspection of Seismic Category I piping was performed during the Comprehensive Area Walkdown. This inspection was performed by the same engineers involved in the earlier interference walkdown and was in accordance with the same procedure. Approximately 1060 potential interferences were identified with six requiring rework. The NRC inspector reviewed these six cases to establish significance of the interferences, adequacy of corrective action and the extent of rework required. The rework required was limited both in number and extent.

With regard to the broader, basic programmatic concern of the failure to follow procedures and commitments to the NRC, the site program now requires a signoff sheet for new installations. This sheet requires all disciplines to verify that clearance requirements have been met.

Based on the reinspection/reevaluation performed by the licensee, the NRC inspector has no further questions or concerns with the technical aspects of this issue. However, the concern over LP&L's ability to take adequate corrective on NRC identified problems is discussed in the response to PEA 6.a (Section 3.g).

This item is considered closed.

4) CAT Finding (Pages III-7 & III-8)

Minor discrepancies were noted in three of the five support/restraint documentation packages reviewed. On CSRR-259, there were no ESSE signatures for redlines, no final ESSE review signature, and redlines that were not initiated and dated. On

CCRR-1175, it was noted that a Tompkins-Beckwith engineer had apparently redlined the drawing to delete pipe side welds from a box restraint without the use of design change documents. On CCRR-20, the redline for weld W1 had two weld segments reversed from the position shown on the ESSE disposition of NCR-4010.

Licensee Response

LP&L responded with information on the following support/restraints:

CSRR-259 - The discrepancies noted were included as part of NCR-2847 initiated on July 22, 1981.

CCRR-1175 - Approved procedures in effect at the time of the redline was made allowed this to be done without the use of design change documents.

CCRR-20 - This was a drafting error that was corrected by ESSE.

NRC Followup Inspection

The NRC inspector reviewed LP&L's response and discussed the specific examples with site personnel.

Based on the minor nature of the discrepancies and the review of LP&L's response, the NRC inspector has no further questions or concerns about this issue. This finding appears to have no safety significance.

This item is considered closed.

5) CAT Finding (Page III-21)

Installation Drawing SMG-803-501-1A shows Fans 3A-5A and 3B-5B in reversed positions than on design diagram and actual installation.

Licensee Response

The actual installation is in accordance with the design and installation drawings according to LP&L. DCN-HV-118 R1, which was posted on the installation drawing, denotes the correct fan location. The as-built installation drawing program for HVAC installation drawings does not require the incorporation of DCN's or FCR's. The as-built record is maintained by the posting process.

NRC Followup Inspection

The inspector reviewed LP&L's response and found the response to be adequate. This item appears to have no safety significance.

This item is considered closed.

6) CAT Finding (Page III-11)

Nine individual fire damper assemblies representing six fire dampers were inspected for proper installation operability and condition. Of the nine assemblies tested two failed to function as designed. (FD 143 and FD 149).

In addition, guide tracks for assemblies FD 66A and FD 66B appeared to be inverted. The damper assemblies could not be reopened from the side on which the manway was located. Though this configuration did not affect the operability of the damper assemblies, it was, nonetheless, an installation error.

Licensee Response

An LP&L review of LP&L Test Procedure SPO-46K-001 revealed that there were seven fire dampers found to have operational difficulties during initial test but that they were documented previously on CIWA's 841207, 841209 and 841225. The problem with FD 143 was included.

Inspection of FD 149 (typo error in the CAT report identifies this as FD 14) was reinspected by the responsible engineer and found to be operating satisfactorily as installed. No action was taken on FD 149.

A letter was prepared and distributed to clarify operating instructions for manual release of dampers when required to prevent binding due to improper manual release. The letter also recommends, due to problems exhibited with the negator springs, that the fire dampers be upgraded with respect to preventive maintenance and visually inspected every 18 months.

Additionally the above noted CIWA's are to be completed and retesting of the subject fire dampers performed per the original SPO requirement.

The problems noted appear to be in fact generic to this type of fire damper and as such have resulted in the upgrade of preventive maintenance requirements as noted in corrective action above.

The licensee also stated that guidetracks for fire damper FD-66 are installed correctly. The confusion seems to stem from the location of the access door used to inspect the damper during the CAT audit. A 12" x 12" access door is provided on +35 EL which allows access to the fire dampers, thus assuring that the fire damper can be reopened. There exists another access door, downstream of the FD66 assemblies which provides access to a splitter damper.

NRC Followup Inspection

The NRC inspector reviewed the licensee's response and found the corrective action taken to be adequate. The upgrading of preventive maintenance requirements on fire dampers appears to help satisfy any generic concerns.

The failure of fire dampers to function during tests was apparently caused by the way personnel were testing the dampers and not by any design deficiencies.

This item is considered closed.

7) CAT Finding (Page III-13)

The CAT inspector found mechanical maintenance and inspection to have not been completed on time for the HPSI "B" pump, the SDHX "A", and the SDHX "B". These are out of a total of 33 pieces of equipment.

Licensee Response

These maintenance and inspection items were determined to be as follows: HPSI B motor rotation was not recorded for the week of January 12, 1981; Shutdown Heat Exchangers A and B were received February 15, 1977, but the inspection for damage was intermittent until May 13, 1977. (the nitrogen blanket was properly maintained throughout this period).

This type of maintenance and inspection items, if performed late or missed during a periodic inspection, would be addressed on the subsequent inspection, and any corrective action required addressed at that time. For these cases, no additional action was required. This equipment was inspected during system transfer and found to be acceptable. Additionally, prerequisite and preoperational testing performed on the equipment assure that it is currently performing properly.

NRC Followup Inspection

The NRC inspector reviewed the licensee response and found it to be adequate. The findings appear to be isolated cases with no safety significance.

This item is considered closed.

8) CAT Finding (Page III-14)

The CAT inspector found the following:

- a) CCW Surge Tank, CVCS Pump "A", and CCW Pumps "A" and "B" were not installed to the required minimum torque valves.
- b) Regenerative Heat Exchanger had bolting configurations different than specified. Three bolts on the sliding feet were tight and one was loose and free to turn while the specification stated the bolts should be backed off one-fourth of a turn from "hand tight".
- c) CCW Heat Exchanger "A" had lock nuts not meeting minimum engagement.

Licensee Response

The licensee stated that minimum torque requirements were specified for equipment installed after October 4, 1979, per FCR-M-62. The four pumps noted were all installed prior to October 4, 1979, but were not QC accepted until after this date.

All heat exchangers were inspected, and except for the shutdown cooling heat exchangers, no further cases of mounting bolt anomalies were found. The regenerative and shutdown cooling heat exchangers were addressed on NCR-W3-7634 R-1.

The regenerative and shutdown cooling heat exchangers were reworked in accordance with NCR-W3-7634 R-1. The lock nuts with insufficient thread engagement were removed from CCW heat exchanger A, and the anchor bolt threads were deformed to secure the remaining nuts in position.

NRC Followup Inspection

The NRC inspector reviewed the licensee response and found the corrective action to be adequate. The pump torque requirements were not violated after all and the discrepancies with the two heat exchangers appear to be isolated cases.

This finding is considered closed.

9) CAT Finding (Page III-13)

The CAT inspector found the following discrepancies in mechanical equipment installation travelers:

- a) ACCW Pumps "A" and "B" had holdpoints bypassed and conflicting signoff dates.
- b) CCW Pump "A" had the traveler package accepted with no QC verification.
- c) Spent Fuel Racks had some craft signature signoffs one to three months after the date QC accepted the work.

Licensee Response

The licensee stated the following:

- a) ACCW Pumps "A" and "B" discrepancies were previously identified on NCR-1725 and corrective action taken.
- b) The tightening of CCW Pump "A" anchor bolts was not documented. Failure due to overtightening would occur during actual installation. As these bolts did not fail during the initial tightening, they are considered to be acceptable.
- c) It is evident from a review of the installation travelers for the spent fuel racks that construction failed to sign off the required spaces during the work period, and then during documentation review the omissions were caught and the spaces signed.

Purposely waiting periods of months prior to signing off traveler spaces was not part of the installation contractor's philosophy. Upon discovery of these omissions, the date of actual sign off is required, even though the work was performed earlier; backdating sign offs is unacceptable. As the omissions were discovered and all spaces were signed off by construction, no further corrective action was required.

NRC Followup Inspection

The NRC inspector reviewed the information submitted by LP&L. These findings appear to have no safety significance. Any deviations appear to be minor procedural areas.

This item is considered closed.

c. Welding and Nondestructive Examination

1) CAT Finding (Page IV-4)

During the review of documentation for pipe welds, the CAT inspector found that some Tompkins-Beckwith (T-B) post weld heat treatment (PWHT) strip charts did not indicate the travel speed, therefore, the heatup and cooldown rates could not be calculated.

Licensee Response

LP&L stated that generally Tompkins-Beckwith (T-B) did record travel speed for the strip chart recorders on the PWHT strip charts. In the instances where travel speed was not indicated, as identified during the audit, travel speed was verified in the following manner:

T-B PWHT strip chart travel speed was determined by review of the PWHT record sheet, signed by the stress relief operator and QC inspector. The times for "soak" and "end soak" are recorded on the record sheet. These times are also marked on the PWHT chart. The sample submitted shows "soak" and "end soak" times to be 12:07 and 12:42, thus indicating an elapsed time of 35 minutes. Based on the lapsed time, and the recorded start/stop points, the chart speed was ascertained to be 2" per minute.

NRC Followup Inspection

The NRC inspector reviewed LP&L's response and supporting data and found the calculated travel speeds to be acceptable. The examples found during the CAT inspection where the travel speed was not recorded are considered isolated cases.

This item is considered closed.

2) CAT Finding (Page IV-5)

The review of the welding documentation for pump supports 2A and 2B revealed that the PWHT chart for 1-A2A-P1-E7-E-1 was performed at 1050°F instead of the 1100°F minimum required by the Ebasco specification. In addition, the chart also did not indicate a time base, therefore, the PWHT time and heatup/cooldown rates could not be determined.

Licensee Response

The material used to fabricate Structural Piece No. 1-A2A-P1-E7-E-1 is, according to LP&L, ASME SA542 Class 2 material. The postweld heat treatment requirement for this material specified on Ebasco Drawing LOU 5817, G-696S03, is 1125°F in accordance with NF-4600. However, Note 2 of the drawing also specified that a stress relief heat treatment temperature at least 50°F lower than the material tempering temperature was desirable to avoid the possibility of over tempering. Based upon the requirements of Note 2 and the material tempering temperature, the 1050°F postweld heat treatment temperature was selected.

In order to verify the postweld heat treatment time, which was not indicated on the heat treatment chart for Structural Piece 1-A2A-P1-E7-E-1. Ebasco contacted the Braddock Heat Treating Company. The Braddock Heat Treating Company had performed the postweld heat treatment of this piece under contract to Industrial Engineering Works. The chart for the heat treatment was identified as Strip Chart 78-27-A, October 3, 1978, IEW P.O. #2662a, BHT #3054, Furnace #117. Braddock reported that the chart speed was 3 minutes per line or about 9 minutes per inch. Ebasco reviewed the chart for Piece 1-A2A-P1-E7-E-1 and determined the time and temperature to be acceptable for the SA542 Class 2 material and the maximum 4 inch weld thickness.

A review of the records of 3 other pieces similar to piece No. 1-A2A-P1-E7-E-1 indicated that satisfactory soak time was achieved. This review was expanded to include a representative sample to re-verify compliance with specification requirements.

NRC Followup Inspection

A further inspection of other PWHT charts by Ebasco revealed several others with time bases not indicated. Ebasco is presently investigating to determine the extent of the problem and for reportability to the NRC.

This item is considered unresolved pending the results of this investigation. (382/8430-04)

3) CAT Finding (Page IV-6)

During the CAT inspection of piping inside the refueling pool the hand wheel on a valve was found to be carbon steel. Since the valve will be fully immersed in boric acid solution during refueling, this material was identified as inappropriate.

Licensee Response

LP&L responded that during a walkdown inspection, the following items were identified as carbon steel material:

- a) Valve 2RC-V2555 Handwheel, Nut and Washer
- b) Safety Chain Clasp
- c) Two 3/8" Mounting Bolts and Nuts

L-CIWA #6331 was written to replace the handwheel, nut and washer on valve 2RC-V2555 as previously stated in the CAT report. This L-CIWA was redispositioned to coat this component with Amercoat 90. This coating is consistent with the reactor flange seal ring coating.

L-CIWA #6336 was written to remove the safety clasp and the two 3/8" bolts and nuts.

The reactor cavity, refueling cavity and spent fuel pool have been inspected. All carbon steel components have either been coated or removed.

NRC Followup Inspection

The NRC inspector finds the disposition of this finding to be adequate. This finding appears to be an isolated case.

This item is considered closed.

4) CAT Finding (Page IV-10)

During the inspection of 300 shop welds fabricated by Peden steel, the NRC CAT inspectors identified welds which did not meet the specified acceptance criteria. Three welds were selected for engineering evaluation. Those three welds represented the "worst" welds from the inspected weld sample. Two of the selected welds contained various defects such as

undercut, lack of fusion, crater and were undersized. The third weld was a seal weld whereas the drawing required a 1/4-inch fillet weld. Therefore, the required 1/4-inch fillet weld was missing altogether. As a result of this finding, the licensee issued DN-SQ-2167. The three welds were evaluated by Ebasco engineering, accepted as-is and determined to be adequate for the intended application.

Licensee Response

A sample inspection of 742 weld connections was conducted by Ebasco in accordance with Site Procedure ASP-IV-142. Twenty-eight connections were found to exhibit minor deviations from weld acceptance criteria. The deficient welds were evaluated by ESSE and were found to be structurally adequate to meet the design loads.

Three connections were found to have non-weld related defects summarized as follows:

- One connection had a cracked bent plate.
- Two coped beam connections had incomplete repair cuts.

NCR W3-5805 documents the engineering disposition of all the above weld discrepancies and the corrective action for repair of the three non-weld related discrepancies.

None of the weld discrepancies found required rework.

NRC Followup Inspection

The NRC inspector reviewed the licensee response and concludes that this finding represents isolated cases.

This item is considered closed.

d. Civil and Structural Construction

1) CAT Finding (Pages V-3)

During the inspection of a lateral restraint for reactor coolant pump 1A, it was identified by NRC CAT inspectors that concrete adjacent to the restraint was cracked around the base plate which was embedded in concrete. Based on the inspectors' comments and additional review by Ebasco engineering, Engineering Discrepancy Notice (EDN) EC-1780 was issued to

remove the damaged concrete, repair the concrete, and to inspect the concrete around other reactor coolant pump lateral restraints for similar conditions. The cracked condition of the concrete had not been previously identified by construction, engineering, or inspection personnel.

Licensee Response

The specific finding identified during the NRC CAT Audit was repaired under Ebasco EDN-EC-1780. In accordance with the disposition to EDN-EC-1780, all other remaining reactor coolant pump snubber support corbels were inspected by Ebasco. No other spalled concrete conditions were found.

Upon inspecting all twelve reactor coolant pump snubber supports, it was found that only the bottom four were welded to embedded plates with concrete corbels.

The design of the corbel and the embedded plate is such that the strip between outer edge of concrete and the plate is only ± 3 inches. This arrangement makes forming easier, however this type of construction with no reinforcing is subjected to cosmetic failure when the plate is preheated and subjected to heavy welding. This edge concrete could be eliminated without affecting the structural integrity of the corbel.

NRC Followup Inspection

The NRC inspectors reviewed the LP&L response and performed a visual inspection of the base plate. The repairs stated in EDN EC-1780 appeared to have been performed. The repair needed was strictly for cosmetic purposes. There is no safety significance to this finding since the cracks were only cosmetic surface cracking.

This item is considered closed.

2) CAT Finding (Page V-5)

It was noted by NRC CAT inspectors that certain water quality test records (monthly tests) were not available for review. The missing test records had been identified by notations on the records folder in previous reviews by site personnel.

Licensee Response

The test record folder for monthly water quality documentation noted missing documentation for the following months: September 1975, October 1975, November 1975, November 1976, and November 1978.

A thorough search of the water records located the monthly water reports for November 1975, November 1976, and November 1978. Additional investigation for the months of September 1975 and October 1975 revealed that no monthly water reports were generated due to the fact that the first load of concrete was not placed until December 1975. It should be noted that even though water quality records do not exist for September 1975 and October 1975, the water quality was taken into careful consideration by the means of the design mix qualifications. These design mix qualifications are available through GEO Testing which is located on site.

NRC Followup Inspection

The NRC inspectors have reviewed the corrective action and found this item not to have safety significance since all required data is available.

This item is considered closed.

3) CAT Finding (Pages V-6 and V-7)

Cadweld tensile testing is to be performed for each cadwelder. Testing requirements are based on a testing schedule for each cadweld position, bar size, and grade of bar. The testing frequency is specific in selection of the production or sister splices to be tensile tested. For four of the 12 cadwelders reviewed, cadwelds were not tested at the proper frequency for certain bar sizes and positions (seven bar sizes and positions for the four cadwelders). In one instance, for cadwelder 5W, it appeared that although the specifications called for a production test splice to be taken, a sister test splice was used. There appeared to be sufficient rebar length to cut out the production cadweld and install replacement cadweld.

In review of the production summary for cadwelder J59, NRC CAT inspectors noted that the requirement of Specification LOU-1564.479, Section 13.03 was not met in that when two visual rejects occurred (cadwelds #13 and #14), cadwelder J59 should have been requalified in all positions. The two visual rejects were on #8 rebar in the vertical position. After the visual rejects, cadwelder J59 was not requalified in all positions, but instead switched to the horizontal position without additional qualification testing. Cadwelder J59, however, was requalified in the vertical position.

Prior to resuming cadwelding in the vertical position. It was noted that cadwelder J59 had a fairly low cadweld rejection rate (eight rejects of a total of approximately 400 cadwelds or approximately two percent).

Results of the NRC CAT inspectors' review of cadweld records were compared to the production and testing summary provided as Attachment V to NCR 6234. It was noted that the production and testing summary is partially inaccurate in that the summary does not take into account the requirement to restart the splice sampling plan based on the occurrence of visual rejects. For example, cadwelder 6W had visual rejects on cadwelds #68 and #235, however, Attachment V to NCR 6234 does not reflect restarted test schedules. The concern is that Ebasco engineering dispositioned this item of the NCR based partially on the aggregate number of cadwelds made and tested.

However, a more accurate view of the cadwelding operation would be reflected in the number of tests required and the number actually performed.

Licensee Response

LP&L stated that the cadweld testing frequency was indeed outside the required frequency per Ebasco Specification LOU 1564.479. This discrepancy has been noted and correctly addressed by Ebasco per NCR-W3-6234, Attachment V, Supplement No. 1, Item 3. In addition, Ebasco Letter ES-9411 further clarifies NCR-W3-6234.

NCR-W3-6234 has been 100% reevaluated to accurately include visual rejects and the restart of the testing schedule. This review has been documented on Attachment V, Supplement 1 of NCR-W3-6234 by Ebasco Quality Assurance and reviewed by Ebasco Engineering.

This NCR is currently undergoing a follow-up review by LP&L.

NRC Followup Inspection

The NRC inspector reviewed the data submitted. A similar concern is part of the investigation by the Waterford 3 NRC Task Force. LP&L is assessing this under response to Item No. 11, documented in NRC letter dated June 13, 1984.

This item is open pending resolution of this finding by the NRC Task Force. (382/8430-05).

4) CAT Finding (Page V-9)

The CAT inspectors found that backfill test records indicated that tests performed for material acceptance (moisture content and gradation) were performed after placement and compaction rather than before placement as required. This was contrary to FSAR Section 2.5.4.5.3.3, the construction specification (LOU-1564.482, Section 8.3.b), and the QC inspection procedure (QCIP-2, Section 6.2.3). The full material acceptance inspection/testing was recorded on Form QCIP-2-1 entitled; "Borrow Material Inspection Report."

Licensee Response

LP&L stated that the commitment did not exist in the FSAR which was in effect between 1974 and 1978 during the period when most of the work was performed. Borrow material was approved at the source (pit) by the site soils engineer, a highly qualified individual who represents design engineering. It was pump-dredged batture sand, very clean and uniform. The specification did not require the QCIP-2 form to be filled out prior to placement and only routine check tests were performed off the fill. NCR-7688 documents the resolution to the noncompliance with regard to QC sampling of Class A borrow material. FSAR Change Request number L-CH-84-1 has been initiated to clarify the FSAR requirements.

NRC Followup Inspection

The NRC inspector reviewed the submittal. There appears to be no safety concern to this finding.

This item is considered closed.

5) CAT Finding (Page V-9)

Review of backfill test records indicated that some moisture contents reported were above the specification limit of "no greater than 3% above the optimum moisture content". This requirement is stated in Ebasco Specification LOU 1564.482, Section 8.3.1.b and is in fact highlighted on the Peabody Testing form (PBO 8-09-6752) for the in-place density test rubber balloon method. The in-place density tests which involved high moisture contents were: #939 (Fill #3, Vol. 1) and #B0182ARR, #B0181AR, #B0216ARR, and #B0222A (Fill #6, Vol. 2). In at least one case, test #B0181AR, the QC inspector had flagged the greater than allowable moisture content. However, the density test was accepted based on meeting density requirements. There was no evidence of engineering approval of

this condition nor that the specification limit on moisture content was not a quality attribute. The concern is that although soils with moisture contents greater than optimum can be compacted to the required degree using more compactive effort, there is a point at which the soil strength decreases (overcompaction).

Licensee Response

It is the position of Ebasco Engineering that the specification requirements for moisture content, etc. of backfill materials is not a quality parameter and that the moisture values obtained incidental to in-place density tests were of no significance. Moisture content was controlled as a practical matter to protect schedule since compactive effort is increased if moisture is not near optimum values. The only quality concern imposed is relative density for which satisfactory records exist.

The concern regarding overcompaction relates to cohesive (clay) soils behavior and is not associated with granular (sandy) soils as the clean uniform sand backfill material used here. Occurrence of moisture contents greater than allowed by specification have, therefore, not decreased the strength of the backfill.

NRC Followup Inspection

The NRC inspector reviewed the LP&L response to this finding. This finding appears to have no safety significance.

This item is considered closed.

e. Design Change Control

1) CAT Finding (Page VII-6)

The CAT inspector found a problem in the definition used by Ebasco to define a minor change. As defined in Ebasco Procedure Number ASP-I-4 a minor change "does not affect intent of latest approved design including equipment, component, system or structure, which relates to function, operation or safety, or future extension of plant; and results in extra costs of less than \$100,000 and has no adverse effect on the critical path of the Project Schedule." However, ANSI N45.2.11 indicated that minor changes to design documents are inconsequential editorial corrections or changes to commercial terms and conditions. ANSI N45.2.11 further indicated that changes that fall into this category may not require the revision to receive the same review and approval as the original document. The CAT inspector found eight posted FCRs which in effect revised Specification MC-1.

Although each fulfilled the definition of a minor change per Ebasco procedure, they were not inconsequential editorial corrections and would have been classified as significant changes per ANSI N45.2.11.

Licensee Response

LP&L stated that major and minor change definitions are stated in paragraphs 4.9 and 4.10 of Procedure E-69 and paragraph 4.3 and 4.4 in ASP-I-4. Specifically, all changes that affect safety-related aspects of the design are required to be reviewed and documented in accordance with Section QA-I-4 of Ebasco's Topical Report ETR-1001. Responsibility for determining the significance of the proposed change rests with the lead discipline engineer as delineated in Section 6.1 of E-69. His determination is reviewed by the supervising engineer and project engineer for review/concurrence.

In summary, it is Ebasco's position that the definitions in E-69 do meet the requirements of ANSI N45.2.11 and that no revisions to these definitions are required.

NRC Followup Inspection

The NRC inspectors reviewed the LP&L submittal along with Ebasco Procedure E-69 for DCNs and FCRs.

There is no safety related concern to this CAT finding since a minor change that affects safety related aspects shall be handled the same as a major change.

This item is considered closed.

2) CAT Finding (Page VII-7)

The NRC CAT inspector found that project procedures do not require that all FCRs be incorporated into affected design documents.

Licensee Response

It is stated in the CAT report (Section VII B.2.C) that although FCR's are normally incorporated into design documents, project procedures do not require that all FCR's be incorporated. This is correct and is in accordance with Ebasco procedures. All FCR's are generated in accordance with Ebasco Engineering Procedure E-69. This procedure requires review of the FCR by the affected discipline (disposition recommended by Construction); this review assures that the change is reviewed

by the originating group. It should be noted that many of the FCR changes involve minor modifications to typical details for installation of a specific item, in order to suit prevailing field conditions. In many cases the revised detail cannot be incorporated into the design drawing (example: acceptable modifications to anchor bolt spacing depicted on typical anchor plate details.) Part of the lead discipline engineer's responsibilities is to accept or reject the recommendation of Construction as regards incorporation of the change into the appropriate design document. All FCR's generated against design drawings are posted in Document Control, and as acknowledged by the NRC, are normally incorporated into the affected design drawings. FCR's which contain minor installation detail modifications are judged individually to decide if they need to be incorporated. Regardless of whether they are incorporated or not, they are still posted and available, if required, to ascertain the as-built condition.

As much as practically possible, FCR's are incorporated into design drawings. Engineering judgement is used for minor installation detail modifications in order to decide if incorporation is necessary. This program meets the requirements of Ebasco's Topical Report ETR-1001 and Engineering Procedure E-69.

NRC Followup Inspection

The NRC inspectors reviewed the LP&L response and have determined that existing site procedures are adequate to incorporate safety related design changes into affected design documents. The Ebasco lead discipline engineer has the responsibility of incorporating changes into appropriate design documents.

This item is considered closed.

3) CAT Finding (Page VII-5)

Valve 2SI-V-305B was not installed in the position required by DCN-MP-478 or as shown on ISO SI-IC-59 (i.e., the valve operator is installed in a horizontal plane rather than rotated 15 degrees from the horizontal plane).

Valve actuators for valves 2SI-V-305B, 2SI-V-307A, 2SI-V-308B, 2SI-V-353, and 2SI-V-346B are rotated about their axis in a position which differs from that specified in the DCN.

Licensee Response

The NRC CAT inspection identified a safety related valve operator which was installed with a minor discrepancy compared to the design drawings. NCR W3-7626 was issued to document this discrepancy for Valve 2SI-V305B and FCR-MP-2689 was issued to document as-built orientation of the operator for Valve 2SI-VB305B.

As a followup to the above finding ESSE compiled a list of all safety related motor operated valves and establish an acceptance criteria for orientation of Limitorque operators. Ebasco QA completed a field surveillance of these motor operated valves. ESSE evaluated the field surveillance and identified forty-one minor discrepancies. NCR W3-7748 was issued to document the findings. All deviations were considered minor and do not impact the pipe stress analysis.

Station Modification Report SMR-84-0301 was issued to show as-built orientation on design drawings.

NRC Followup Inspection

The NRC inspector reviewed the licensee response. The finding appears to be a minor documentation problem with no safety significance.

This item is considered closed.

4) CAT Finding (Pages VII-8 & VII-9)

The CAT inspector found that out of 22 safety related valves visually inspected one valve had a position switch which did not agree with its associated design documents. Specifically, valve CC-F-272A had one switch that was a NAMCO Model EA-170-32302, while the valve manufacturer's drawing indicates that a Model EA-170-42302 was required.

Licensee Response

Per NCR W3-7638, forty-eight limit switches for twenty-four valves were reinspected.

The inspection revealed that the existing installation of 47 of the 48 limit switches was correct. On the remaining limit switch (#1-LS-272,A2, Valve #3CC-F272A), the switch body, internals and actuator were correct, but an incorrect cover, gasket and screws were installed. Inspection records for the installation and inspection have been attached to the NCR. It

was concluded that the switch installation had been correctly performed and the incorrect cover and gasket installed during later unrelated work activities.

The incorrect cover, gasket and screws were replaced with correct material and NCR-7638 was subsequently closed on March 31, 1984.

NRC Followup Inspection

The LP&L response was reviewed by the NRC inspectors and found to be adequate.

There appears to be no safety related concern since the correct position switch was installed, but with a different cover. The correct cover has since been installed. The installation of the incorrect cover appears to be an isolated case.

This item is considered closed.

5) CAT Finding (Page VII-10)

The CAT inspector found that out of 150 Gulf Engineering's Design Engineering Notices (DENs) two were similar but had different dispositions. DENs 1554 and 1562 requested the correct type of anchoring bolts to be used. However, for DEN 1554 an FCR was initiated and the vendor drawing revised, while for DEN 1562 the disposition referred to the design drawing (LOU-1564-G-814).

Licensee Response

LP&L stated that each of the answers given for the two instances cited were acceptable and correct responses. The difference between the two DEN's is that for DEN 1554, an FCR was issued to document the bolting requirements in lieu of referring to the design drawing.

NRC Followup Inspection

A review of the LP&L response and the DENs in question by the NRC inspector show that both dispositions are correct and acceptable. The difference is that two people arrived at the same point via different routes. There is no safety significance to this finding.

This item is considered closed.

6) CAT Finding (Page VII-12)

During the review of Tompkins-Beckwith (T-B) information requests, it was noticed that "white out" was used on four information requests to obliterate written text. In examining original documents, it was determined that in two instances the text of the engineering disposition paraphrased the obliterated text. For the other two information requests no determination could be made.

Licensee Response

LP&L stated that Information Request forms were not quality related or design documents. The use of "white-out" on these forms was not considered an unacceptable practice. No corrective action was required for this finding.

NRC Followup Inspection

The NRC review of LP&L's response and interviews with licensee representative shows that the use of "white-out" on information requests was not of concern since these were not quality documents.

This item is considered closed.

f. Corrective Action Systems

1) CAT Finding (Page VIII-2)

The CAT inspector found six instances where NCRs did not state the procedural requirement being violated. Initially, 24 NCRs out of 200 reviewed were deficient in this area. However, corrective action had been performed by Ebasco after an LP&L site audit (W3S-83-22) revealed a similar finding. The six instances cited were for those initiated after the corrective action was accomplished.

Licensee Response

LP&L responded to this finding with documentation showing that Ebasco held training classes in the proper method of processing NCRs. These classes were held during March 27-28, 1984, and were attended by 67 employees of various job responsibilities. In addition, Ebasco initiated Quality Assurance Instruction (QAI-31) on February 20, 1984, to instruct the QA engineer in originating and processing of nonconformance reports.

NRC Followup Inspection

The NRC inspector has reviewed LP&L's response and feels that adequate corrective action has been taken. This finding, even if left uncorrected, would appear to have no safety significance.

This item is considered closed.

2) CAT Finding (Page VIII-2)

Ebasco Procedure ASP-III-7 did not require field applied hold tags to be placed on nonconforming items from December 9, 1983, to March 7, 1984.

Licensee Response

Ebasco stated that the requirement to place hold tags on nonconforming items was inadvertently left out of Revision "J" of Procedure ASP-III-7 (December 9, 1983). After this oversight was discovered during the CAT inspection Revision "K" was made on March 7, 1984, to require the use of field applied hold tags.

Ebasco made a review of NCRs initiated during this period to determine which items needed hold tags. A total of 65 NCRs were discovered and hold tags were applied as needed.

NRC Followup Inspection

The NRC inspector reviewed the LP&L submittal and found the corrective action to be adequate. This finding appears to have no safety significance.

This item is considered closed.

3) CAT Finding (Page VIII-2)

Ebasco Procedure ASP-III-7 did not require the use of the Corrective Action Report from December 9, 1983, to March 7, 1984. This report requires corrective action to be taken to preclude repetition of the nonconforming condition.

Licensee Response

Ebasco reinserted this requirement into Revision "K" of Procedure ASP-III-7 on March 7, 1984.

NRC Followup Inspection

The NRC inspector is satisfied with the corrective action taken. The lack of this requirement does not appear to have any safety significance since nonconformances would have been evaluated through the Ebasco Trend Analysis Program for repetitive problems during this three month period.

This item is considered closed.

5. Unresolved Items

Unresolved items are matters which require more information to ascertain whether they are acceptable items, violations, or deviations. Unresolved items are identified in paragraphs 3.d and 4.c.

6. Open Items

Open items are matters which have been discussed with the licensee, which will be reviewed further by the NRC, and which will involve some action on the part of the NRC or licensee or both. Open items are identified in paragraphs 3.f, 3.g, and 4.d.

7. Exit Meeting

The Region IV inspector, Mr. W. A. Crossman, and Mr. T. A. Flippo, Resident Inspector, met with Mr. R. S. Leddick and other licensee and contractor personnel on September 14, 1984, to discuss the scope and findings of this inspection. The unresolved and open items identified in this report were acknowledged by the licensee representatives.