

SSER

Task: Allegations A-165, A-166, A-292, A-293, A-297, A-299, A-300

Reference No.: 4-84-A-06/60, 61, 173, 174, 178

Characterization: The allegation is that the activities of EBASCO vendor quality assurance (QA) personnel, and the vendor QA records were not adequate.

Assessment of Allegation: The implied significance of this allegation is that the EBASCO QA personnel dealing with the vendors were not performing their job adequately and that problems with QA records generated by the vendor could exist which could affect the acceptability of safety-related material and equipment.

In assessing this allegation, the NRC staff reviewed the following types of information: (1) EBASCO's Nuclear Quality Assurance Program, particularly the sections dealing with surveillance, (2) the letter that the allegation was based on, (3) letters on file dealing with EBASCO's attempts to clear deficiencies with vendor documentation, (4) interviews/conversations with EBASCO personnel, (5) the EBASCO deficiency record file, (6) the EBASCO master list of deficiencies dealing with documentation, (7) the EBASCO master list of deficiencies dealing with radiograph files, (8) two audits reports, (9) receipt, receipt inspection, and conditional release system, and (10) selected vendor documentation quality records.

This review revealed that EBASCO was aware of the issues identified in the allegation and that it was based largely on an EBASCO assessment of problems with vendor/subcontractor QA records that had been uncovered by EBASCO during a QA records review prior to turning those records over to Louisiana Power and Light (LP&L). The NRC staff investigation also disclosed that EBASCO conducted a thorough review of the vendor records. EBASCO detected some problems with those records that were identified on NCRs and DRs. The NCR and DR dispositions included:

- (1) Closing nonconformance reports (NCRs) and deficiency reports (DRs) based on inspection reports which EBASCO engineering specialists who were cognizant of the work claimed to be incomplete.
- (2) Reinspecting all the work done by American Bridge (AB), redoing faulty work by AB, reinspecting the rework, and generating complete inspection records for all the AB work.
- (3) Obtaining material certifications for material supplied by Chicago Bridge and Iron (CB&I) that had been erroneously classified "D" material by CB&I. ("D" material was used in non-ASME/non-pressure boundary situations and did not require material certification).

The above allegation, which has been resolved was largely based on a situation that had existed prior to the allegation, and was being resolved at the time the allegation was made.

The NRC staff also reviewed a selection of Dravo and Southwest Engineering documentation packages and found them to be complete, technically adequate, and appropriately reviewed and approved by EBASCO. In addition, the staff reviewed selected documentation for the following EBASCO-procured stock material: pipe, tubing, valves, welding filler materials, and bolting. This material was installed by EBASCO, Tompkins-Beckwith (T-B), and Mercury. The staff review found that this material meets the requirements. Various traceability issues were addressed in NCRs, and the results of the NRC review for those is denoted under Allegations A-33, A-55, A-56, A-61, A-67 through A-77, A-84 and A-329.

The staff has concluded that the specific allegation has little safety significance. However, during the NRC staff review, a list of deficiencies associated with conditional certification of equipment (C of E) was found for equipment supplied by CE. For example, one conditional C of E for the reactor vessel and internals was issued because as-built drawings, material certifications, and the fabrication plans (as-built drawings) had not been forwarded when the equipment was delivered to LP&L in 1976. The missing documents were reportedly sent to EBASCO sometime in 1978, according to the EBASCO quality records supervisor, but were apparently lost prior to being placed in the EBASCO document control system. The conditional C of E was found when a check of all files was made in April or May 14, 1984. The missing documents have been requested from CE, and a deficiency report was issued and placed on a master deficiency list. This problem has existed since July 20, 1976.

An important aspect of the reactor vessel documentation deficiency was that the deficiency was not identified by either the EBASCO or LP&L QA program and was not on a master tracking list; it was found only as a result of a check of the files.

The use of a formal document tracking system was not initiated until the problem was identified by the NRC staff. The absence of a formal tracking system may also mean that not all CE conditional releases have been identified. Additionally, the requirements for proper identification for nonconformances, corrective actions, and the use of conditional releases was not complied with by EBASCO or LP&L, indicating a partial breakdown of the QA program. It should also be noted that the plant is now constructed, inspected, tested, and ready to load fuel. This oversight was not identified to LP&L Startup and Testing as a turnover exception, nor was LP&L aware it existed prior to NRC detection.

Deficiencies in EBASCO's identification of conditional C of E's, and in the tracking system have been corrected. Reportedly, vendor quality records have been reviewed for conditional C of E's. EBASCO has included them in their computer tracking system as a means to alert EBASCO management of problems, and strong efforts have been made to complete the record deficiencies. In particular, the conditional C of E and associated documents for the reactor vessel and hardware were provided to LP&L in May 1984.

The NRC staff during this review also discovered that the EBASCO system for conditional releases (CRs) was not adequately implemented in that the major overriding factor, "schedule," caused the system to be watered-down. Additionally, the EBASCO procedure ASP-IV-86, Conditional Release Control, did not address the time frame for the resolution and closure of conditional releases. The time frame for 15 conditional releases had been revised from "Prior to System Turnover" to "Prior to Fuel Load" to "Prior to Commercial Operation." Two of the 15 CRs were for pressure boundary parts, flanges and end caps. These CRs were resolved and closed during this NRC inspection. Other CRs affected Safety Injection and Component Cooling Water Valves, which are primarily equipment qualification problems. It should, however, be noted that all the CRs have been identified and tracked as system turnover exceptions.

Potential Violations: The acceptance of material and components that were conditionally released without proper resolution and closure is contrary to the requirements of 10 CFR 50, the ASME Code Section III, and other key licensing commitments.

Actions Required:

See item 5 of the enclosure to the D. Eisenhower letter to J. M. Cain dated June 13, 1984.

References:

1. Memo from B. Grant to L. A. Stinson, File Number ES-7590-83 dated July 19, 1983.
2. Letter from A. M. Cutiona (EBASCO) to J. Solury (CE), File Number W3QA-28227, dated May 1, 1984.
3. Letter from L. A. Stinson (EBASCO) to J. Solury (CE), File Number W3QA-23898 dated March 29, 1983.
4. Letter from L. A. Stinson (EBASCO) to J. Solury (CE), File Number W3QA-23887 dated March 25, 1983.
5. Summary of Conversation between C. L. Nalezny and Lynn Lubinski, May 15, 1984.

6. Summary of Conversation between C. L. Nalezny and Brian Grant, May 15, 1984, and May 16, 1984.
7. Quality Assurance Report W3QA-28056 dated May 2, 1984.
8. Quality Assurance Report W3QA-28245.
9. EBASCO Nuclear Quality Assurance Program, Rev. 5, dated February 1, 1984, Sections II-5, and III-5.
10. EBASCO Audit Report RS-80-11-5, Ebasco Take Over Audit of Work Being Performed by American Bridge.
11. EBASCO Audit Report CEB-79-11-6 - Audit of American Bridge Quality Assurance Program.
12. Conditional Certification of Equipment for Reactor Vessel, issued by Combustion Engineering Co., dated July 20, 1976.
13. Conditional Certificate of Equipment for Rosemount Thermometer Wells for CE dated October 4, 1979.
14. EBASCO Procedure, ASP-IV-86, Conditional Release Control, all revisions.

Statement Prepared By:

C. Nalezny

\_\_\_\_\_ Date

Reviewed By:

\_\_\_\_\_ Team Leader

\_\_\_\_\_ Date

Reviewed By:

\_\_\_\_\_ Site Team Leader(s)

\_\_\_\_\_ Date

Approved By:

\_\_\_\_\_ Task Management

\_\_\_\_\_ Date

Document Name:  
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Requestor's ID:  
CONNIE

Author's Name:  
CNalezny

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Final  
6-21-84  
REV. 2



SSER

Task: Allegations A-165, A-166, A-292, A-293, A-297, A-299, A-300

Reference No.: 4-84-A-06/60, 61, 175, 174, 178

Characterization: The allegation is that the activities of Ebasco vendor quality assurance (QA) personnel, and the vendor QA records were not adequate.

Assessment of Allegation: The implied significance of this allegation is that the Ebasco QA personnel dealing with the vendors were not performing their job adequately and that problems with QA records generated by the vendor could exist which could affect the acceptability of safety-related material and equipment.

In assessing this allegation, the NRC staff reviewed the following types of information: (1) Ebasco's Nuclear Quality Assurance Program, particularly the sections dealing with surveillance, (2) the letter that the allegation was based on, (3) letters on file dealing with Ebasco's attempts to clear deficiencies with vendor documentation, (4) interviews/conversations with Ebasco personnel, (5) the Ebasco deficiency record file, (6) the Ebasco master list of deficiencies dealing with documentation, (7) the Ebasco master list of deficiencies dealing with radiograph files, (8) two audits reports, (9) receipt, receipt inspection, and conditional release system, and (10) selected vendor documentation quality records.

This review revealed that Ebasco was aware of the issues identified in the allegation and that it was based largely on an Ebasco assessment of problems with vendor/subcontractor QA records that had been uncovered by Ebasco during a QA records review prior to turning those records over to Louisiana Power and Light (LP&L). The NRC staff investigation also disclosed that Ebasco conducted a thorough review of the vendor records. Ebasco detected some problems with those records that were identified on NCRs and DRs. The NCR and DR dispositions included:

- (1) Closing nonconformance reports (NCRs) and deficiency reports (DRs) based on inspection reports which Ebasco engineering specialists who were cognizant of the work claimed to be incomplete.
- (2) Reinspecting all the work done by American Bridge (AB), redoing faulty work by AB, reinspecting the rework, and generating complete inspection records for all the AB work.
- (3) Obtaining material certifications for material supplied by Chicago Bridge and Iron (CB&I) that had been erroneously classified "D" material by CB&I. ("D" material was used in non-safety-related situations and did not require material certification).

^ ASME / Non - pressure boundary

The above allegation, which has been resolved was largely based on a situation that had existed prior to the allegation, and was being resolved at the time the allegation was made.

The NRC staff also reviewed a selection of Dravo and Southwest Engineering documentation packages and found them to be complete, technically adequate, and appropriately reviewed and approved by Ebasco. In addition, the staff reviewed selected documentation for the following Ebasco-procured stock material: pipe, tubing, valves, welding filler materials, and bolting. This material was installed by Ebasco, Tompkins-Beckwith (T-B), and Mercury. The staff review found that this material meets the requirements. Various traceability issues were addressed in NCRs, and the results of the NRC review for those is denoted under Allegations A-33, A-55, A-56, A-61, A-67 through A-77, A-84 and A-329.

The staff has concluded that the specific allegation has little safety significance. However, during the NRC staff review, a list of deficiencies associated with conditional certification of equipment (C of E) was found for equipment supplied by CE. For example, one conditional C of E for the reactor vessel and internals was issued because as-built drawings, material certifications, and the fabrication plans (as-built drawings) had not been forwarded when the equipment was delivered to LP&L in 1976. The missing documents were reportedly sent to Ebasco sometime in 1978, according to the Ebasco quality records supervisor, but were apparently lost prior to being placed in the Ebasco document control system. The conditional C of E was found when a check of all files was made in April or May 14, 1984. The missing documents have been requested from CE, and a deficiency report was issued and placed on a master deficiency list. This problem has existed since July 20, 1976.

An important aspect of the reactor vessel documentation deficiency was that the deficiency was not identified by either the Ebasco or LP&L QA program and was not on a master tracking list; it was found only as a result of a check of the files.

The use of a formal document tracking system was not initiated until the problem was identified by the NRC staff. The absence of a formal tracking system may also mean that not all CE conditional releases have been identified. Additionally, the requirements for proper identification for nonconformances, corrective actions, and the use of conditional releases was not complied with by Ebasco or LP&L, indicating a partial breakdown of the QA program. It should also be noted that the plant is now constructed, inspected, tested, and ready to load fuel. This oversight was not identified to LP&L Startup and Testing as a turnover exception, nor was LP&L aware it existed prior to NRC detection.

Deficiencies in Ebasco's identification of conditional C of E's, and in the tracking system have been corrected. Reportedly, vendor quality records have been reviewed for conditional C of E's. Ebasco has included them in their computer tracking system as a means to alert Ebasco management of problems, and strong efforts have been made to complete the record deficiencies. In particular, the conditional C of E and associated documents for the reactor vessel and hardware were provided to LP&L in May 1984.

The NRC staff during this review also discovered that the Ebasco system for conditional releases (CRs) was not adequately implemented in that the major overriding factor, "schedule," caused the system to be watered-down. Additionally, the Ebasco procedure ASP-IV-86, Conditional Release Control, did not address the time frame for the resolution and closure of conditional releases. The time frame for 15 conditional releases had been revised from "Prior to System Turnover" to "Prior to Fuel Load" to "Prior to Commercial Operation." Two of the 15 CRs were for pressure boundary parts, flanges and end caps. These CRs were resolved and closed during this NRC inspection. Other CRs affected Safety Injection and Component Cooling Water Valves, which are primarily equipment qualification problems. It should, however, be noted that all the CRs have been identified and tracked as system turnover exceptions.

Potential Violations: The acceptance of material and components that were conditionally released without proper resolution and closure is contrary to the requirements of 10 CFR 50, the ASME Code Section III, and other key licensing commitments.

Actions Required:

See item 5 of the enclosure to the D. Eisenhower letter to J. M. Cain dated June 13, 1984.

References:

- (1) Memo from B. Grant to L. A. Stinson, File Number ES-7590-83 dated July 19, 1983.
- (2) Letter from A. M. Cutiona (Ebasco) to J. Solury (CE), File Number W3QA-28227, dated May 1, 1984.
- (3) Letter from L. A. Stinson (Ebasco) to J. Solury (CE), File Number W3QA-23898 dated March 29, 1983.



Date \_\_\_\_\_

~~SECRET~~  
Document Name:  
SSER X A-165

Requestor's ID:  
CONNIE

Author's Name:  
CNalezny

Document Comments:  
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FINAL  
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REV. 2

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WATERFORD OPEN ISSUE

Task: A-165; A-166; A-292; A-293; A-297; A-298; A-299; A-300

Ref. No.: 4-84-A-06/173; 4-84-A-06/174; 4-84-A-06/178; 4-84-A-06/60;  
4-84-A-06/61

Characterization: Problems with Ebasco vendor QA people and records.

Initial Assessment of Significance: Vendor documentation may contain deficiencies that were not identified and corrected. May impact hardware.

Source: Individual "A" interview; "B" interview pages 42-45 and 50,  
pages 58-59

Approach to Resolution:

1. Review Ebasco program/procedures for vendor audits records, etc.
2. Read Individual "A"'s interview pages 177-180 and "B" interview pages 42-45 and 50.
3. Review a sample of vendor QA and numbers and records, including Dravo and Southwest Fab.
4. Evaluate for generic/safety implications.
5. Report results of review/evaluation of allegation.

Status: In progress - Team 3 (Phillips)

Review Lead: J. Harrison

Support: C/S (A-298)

Estimate Resources: 2-man days (3 man-days total)

Estimated Completion: May 2, 1984

CLOSURE:

Document Name:  
A-165

Requestor's ID:  
JOHNNIE

Author's Name:

Document Comments:

Document Name:  
SSER X A-165

dk  
a/27

Requestor's ID:  
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Author's Name:  
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