

SSER

Task: Allegation A-258

Reference No.: 4-84-A-06-142(1)

Characterization: It is alleged that Chicago Bridge and Iron Company (CB&I) did not maintain material traceability on certain seismic Category I structural components in the containment vessel that were fabricated from Class D materials.

Assessment of Allegation: Chicago Bridge and Iron Company (CB&I), fabricator of the containment vessel, used material they had categorized as Class D to fabricate certain nonpressure retaining structural components in the containment vessel. These structural components include seismic clips that support safety-grade class piping systems, parts of the equipment hatch handling device, parts of the personnel and escape locks, crane rails and girders, stairs, ladders, and some temporary attachments and components. EBASCO categorized these components as seismic Category I, a category requiring material traceability. But, according to CB&I quality assurance procedures, material traceability was not required for Class D material and thus was not maintained. Nonconformance Report (NCR) No. W3-6224, issued by EBASCO Quality Assurance Group on May 13, 1983, addressed this issue.

To resolve the material traceability problem, EBASCO contacted CB&I and requested that they conduct a search of their in-house records to establish traceability of these materials where possible. CB&I was able to provide Certificates of Compliance or Certified Material Test Reports which established material traceability for a large portion of the components. A listing of those components, which could not be identified as temporary, or for which material traceability could not be established through CB&I records, was forwarded to EBASCO Site Support Engineering (ESSE) for engineering evaluation. Based on their review, ESSE concluded that material traceability was not critical to the safe operation of the components, including bolting and angle iron connectors on stairs, platforms, and crane rails; the equipment hatch handling device; and parts of the personnel and escape locks.

ESSE pointed out that in the CB&I design of the containment vessel, the structural members were categorized in material Classes A through D reflecting their order of importance, Class A being the most important and Class D the least important. Thus, there was a conscious decision by CB&I regarding the materials classification of components. ESSE indicated that they had reviewed and concurred with the CB&I materials classification system.

The NRC staff reviewed the ESSE evaluation, including in the resolution of NCR W3-6224, and performed an independent assessment of the components with potential safety significance, specifically the equipment hatch handling device and the personnel and escape locks. The equipment hatch handling device is used for opening, closing, and storing the 14-foot diameter equipment hatch during maintenance operations but is not relied upon to maintain containment integrity during normal or postulated accident conditions. The NRC staff concurs^{red} with the ESSE conclusion that material traceability is not essential for this component. The personnel and escape locks each have two gasketed doors in series with valve and interlock mechanisms so that containment integrity can be maintained during entry and exit. The NRC staff review of the bill of materials and drawings for the personnel and escape locks showed that the Class D materials in these components were used primarily in the fabrication of actuating mechanisms for valves and interlocks, and for miscellaneous items such as valve handles, bolting, and indicator plates for which material traceability is not critical. The main concern regarding these components is operability and LP&L is ^{required by} committed in the final safety analysis report and in their Technical Specifications to perform operability testing of the personnel and escape locks each time they are opened and at periodic intervals. This surveillance testing should provide adequate assurance that these components will perform satisfactorily.

Based on the review of the ESSE evaluation of this issue and on its own independent review and and evaluation, the NRC staff ~~has~~ concluded that traceability issue for Class D material used in the containment vessel, ^{AS ADDRESSED IN NCR W3-6224} has been satisfactorily resolved through the actions taken in the resolution of ~~THAT~~ NCR W3-6224.

One issue with possible generic implications is that EBASCO did not perform a comprehensive, initial review of the contractor's (CB&I) procedures to determine that they were consistent with EBASCO specifications. Vendor and contractor QA procedures should have been reviewed to ensure that they were consistent with the prime contractor's specifications and quality assurance program.

became
Although a failure in the quality assurance program in effect initially did occur by the fact that the inconsistency between documents was not identified, the same program through internal review identified
This allegation has neither safety significance nor generic implications.

Potential Violations: None.

Actions Required: None.

References

1. NCR W3-6224 issued May 13, 1983.
2. CB&I Nuclear Quality Assurance Manual for ASME Section III Products; Section 4.0, Procurement and Material Control; Revision 6; April 3, 1975.
3. Material Requirements Table for Contract No. 71-2426.
4. EBASCO Internal memorandum from B. Grant, to L. A. Stinson; Subject: Relocation; dated July 19, 1983.
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6. Waterford Steam Electric Station; Technical Specifications Section 3/4, Containment Airlocks.

the material traceability issue. NCR 6224 was written and no violation of NRC regulations was identified.

Statement Prepared By: _____
J. Strosnider Date

Reviewed By: _____
Team Leader Date

Reviewed By: _____
Site Team Leader(s) Date

Approved By: _____
Task Management Date

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SSER A-258

Requestor's ID:
PATTYN

Author's Name:

Document Comments:

RETYPE REV 2

CIRC BACK TO

JG/DC FOR

REVIEW.

LEAVE JG/DC

COMMENTS

ATTACHED TO

REV. 2

WAL

REV 1, 6/19/84/

RETYPE REV. 2

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JG/DC FOR

REVIEW WAL

SSER

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Assessment of Allegation: Chicago Bridge and Iron Company (CB&I), fabricator of the containment vessel, used material they had categorized as Class D to fabricate certain nonpressure retaining structural components in the containment vessel. These structural components include seismic clips that support safety-grade class piping systems, parts of the equipment hatch handling device, parts of the personnel and escape locks, crane rails and girders, stairs, ladders, and some temporary attachments and components. EBASCO categorized these components as seismic Category I, a category requiring material traceability. But, according to CB&I quality assurance procedures, material traceability was not required for Class D material and thus was not maintained. Nonconformance Report (NCR) No. W3-6224, issued by EBASCO Quality Assurance Group on May 13, 1983, addressed this issue.

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Based on the review of the ESSE evaluation of this issue and on its own independent review and evaluation, the NRC staff has concluded that traceability for Class D material used in the containment vessel ^{has been} ~~has been~~ satisfactorily resolved through the actions taken in the resolution of NCR W3-6224.

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Potential Violations: None.

Actions Required: None.

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*we can't
just drop
him in
here and
walk
away.
What's the
generic
implication?
is it a
safety question
or not?
Agree*

Statement Prepared By:

J. Strosnider

Date

Reviewed By:

Team Leader

Date

Reviewed By:

Site Team Leader(s)

Date

Approved By:

Task Management

Date

A licensee is not cited
if he identifies the violation,
takes corrective action, reports
the violation (if appl) and it is
a violation. He should not have been
corrected by person. action. Does
it matter? No.

7/1/84

Bill Crossman: I agree with
Gagliardo - we should probably
fine LP&C for not picking
up on this at the outset, not after
work was all done. I have pre-
pared a Potential Violation writeup.
This can be included after you
review it. Shewmaker

SHEWMAKER -

Do you intend that
lifting supports included here?

ALSO, SHOULD THERE BE A
VIOLATION?

— Bue C

DENNY -

Yours & JG's comments
ATTACHED. SEE REVISIONS. DO
THEY ADDRESS YOUR CONCERNS

BILL

Yw
OK
DML 6/22/84

Document Name:
SSER A-258

file

Requestor's ID:
CONNIE

Author's Name:

Document Comments:

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SSER A-258

FILE

Requestor's ID:
CONNIE

Author's Name:

Document Comments:

I have seen
this one before

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SSER

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Potential Violations: None.

Actions Required: None.

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Statement Prepared By: _____
J. Strosnider _____
Date _____

Reviewed By: _____
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