

SSER

Task: Allegation A-259

Reference No.: 4-84-A-06/142(3)

Characterization: It is alleged that "Class D" material used by Chicago Bridge and Iron (CB&I) in the fabrication of certain non-pressure bearing structural components inside the containment building was not welded with traceable weld rod and that the welds are not traceable to a specific welder.

Assessment of Allegation: This allegation is related to Allegation A-258 regarding the traceability of materials categorized by CB&I as Class D that were used in the fabrication of certain non-pressure bearing structural components in the containment vessel. As described in the assessment of Allegation A-258, these structural components included seismic clips that support safety-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, with the exception of temporary items, as seismic Category I. As such, they required material traceability. But, according to CB&I quality assurance procedures, material traceability was not required for what they categorized as Class D material and thus was not maintained. As stated in the assessment of Allegation A-258, the traceability of the Class D structural steel was satisfactorily resolved by Nonconformance Report (NCR) W3-6224. Even so, this NCR did not address the traceability of the weld material.

To assess this issue, the NRC staff reviewed the structures in which the "Class D" material was used and requested LP&L to provide the quality assurance (QA) documentation for welds in several of the structural components considered to have the greatest safety significance. These components were the containment spray system pipe supports (seismic clips), crane girders, and equipment hatch handling device. The staff also requested QA documentation for such items as welding procedures, welder identification and qualifications, weld rod identification, and the inspection results for certain welds in these components. This QA information is required for welds in safety-related structures. LP&L was unable to produce the records requested by the NRC staff. The inability to produce the appropriate QA records makes the quality of these safety-related structures indeterminable and the NRC staff has concluded that LP&L must take additional actions, as described below, to resolve this issue.

Potential Violations: The inability to produce QA records for welds in safety-related structures is a violation of 10 CFR 50, Appendix B, Criterion XVII, "Quality Assurance Records." Criterion XVII requires that sufficient records be maintained to furnish evidence of activities affecting quality.

Furthermore, the possibility exists that because of the erroneous Class D categorization of materials in safety-related structures, the required QA activities were not performed, nor were the required QA records generated. Thus, there are potential violations of Criterion VIII, "Identification and Control of Materials, Parts, and Components"; Criterion IX, "Control of Special Processes"; and Criterion X, "Inspection." Criterion VIII requires the identification and control of materials, and Criterion IX requires the control of welding, inspection processes and personnel. Criterion X requires the establishment and execution of an inspection program.

Actions Required: See Item No. 15 in the enclosure to the letter from D. Eisenhut (NRC) to J. M. Cain (LP&L), June 13, 1984.

References:

1. Assessment of Allegation A-258
2. Nonconformance Report W3-6224 issued May 13, 1983
3. Code of Federal Regulations, Title 10, Part 50, Appendix B.

Statement Prepared By:

J. Strosnider

_____ Date

Reviewed By:

Team Leader

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Site Team Leader(s)

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Task Management

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Requestor's ID:
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Author's Name:

Document Comments:
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Task: Allegation A-259

Reference No.: 4-84-A-06/142(3)

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Statement Prepared By:

J. Strosnider

Date

Reviewed By:

Team Leader

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Task Management

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Document Name:

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CONNIE

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Task: Allegation A-259

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Actions Required: See Item No. 15 in the Enclosure to the letter from D. Eisenhower (NRC) to J. M. Cain (LP&L), June 13, 1984.

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3. Code of Federal Regulations, Title 10, Part 50, Appendix B.

Statement Prepared By:

J. Strosnider

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Task Management

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PATTYN

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Task: Allegation A-259

Reference No.: 4-84-A-06-142(3), 4-84-A-06-142(3)

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Assessment of Allegation: This allegation is related to Allegation A-258 regarding the traceability of materials categorized by CB&I as Class D that were used in the fabrication of certain nonpressure bearing structural components in the containment vessel. As described in the assessment of Allegation A-258, these structural components included seismic clips that support safety-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, with the exception of temporary items, as seismic Category I. As such, they required material traceability. But, according to CB&I quality assurance procedures, material traceability was not required for what they categorized as Class D material and thus was not maintained. As stated in the assessment of Allegation A-259, the traceability of the Class D structural steel was satisfactorily resolved by Nonconformance Report (NCR) 6224. Even so, this NCR did not address the traceability of the weld material.

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Actions Required: If LP&L cannot produce the required QA documentation for the welding of "Class D" materials inside the containment vessel, they shall develop and implement a program to assure that the safety-related structural components have adequate quality so as not to adversely affect their structural integrity and safety-related functions. The program shall include a review of the structures in which Class D material was used and identification of those that are safety related. Actions taken by LP&L to resolve the issue shall utilize one of the following approaches or an equally suitable method.

- o Demonstration that QA requirements were met through the review of supplier, contractor, and/or other records.
- o Demonstration that the structural component of concern does not have a significant safety function and hence that QA records are not necessary.
- o Appropriate nondestructive inspection and/or evaluations of appropriate structural welds.
- o Destructive analyses (materials property testing, chemical composition analyses, etc.) of a representative sample of welds.
- o Rewelding of critical components in accordance with approved QA and quality control (QC) procedures.

The results of LP&L's program shall be submitted to NRC and the NRC staff shall review the results to ensure that this issue has been satisfactorily resolved prior to fuel loading.

References

1. Assessment of Allegation A-258
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3. Code of Federal Regulations, Title 10, Part 50, Appendix B.

Statement Prepared By: _____
J. Strosnider Date

Reviewed By: _____
Team Leader Date

Reviewed By: _____
Site Team Leader(s) Date

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Task Management Date

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A-259, DRAFT 3, 6/21/84

RETYPE REV. 0

CIRC DC/JG

SSER

Task: Allegation A-259

Reference No.: 4-84-A-06-142(3) / ~~4-84-A-06-142(3)~~

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3. Code of Federal Regulations, Title 10, Part 50, Appendix B.

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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A-259, REV. 0, 6/22/84

RETYPE REV. 1 (FINAL)

DO NOT REROUTE

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FINAL SSER ROUTING

A-259

Revision :	0	1	2	3
✓ Denny Crutchfield	<i>[Signature]</i>	F		
✓ Jim Gagliardo	<i>[Signature]</i>	N		

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6/26

SSER

Task: Allegation A-259

Reference No.: 4-84-A-06/142(3)

Characterization: It is alleged that "Class D" material used by Chicago Bridge and Iron (CB&I) in the fabrication of certain non-pressure bearing structural components inside the containment building was not welded with traceable weld rod and that the welds are not traceable to a specific welder.

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See Item No. 15 in the Enclosure to the D. Eisenbud letter of 6/13/84 to J. M. Cain (LP&L),

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Statement Prepared By:

J. Strosnider

Date

Reviewed By:

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Statement Prepared By:

J. Strosnider

Date

Reviewed By:

Team Leader

Date

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Task Management

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Task: Allegation A-259

Reference No.: 4-84-A-06/142(3)²

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Hold these comments for
incorporation with JG &
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6/28/84

R. Shawmiller

identification, and the inspection results for certain welds in these components. This QA information is required for welds in safety-related structures. As of ^{June 14,} ~~May 31,~~ 1984, LP&L was unable to produce the records requested by the NRC staff ^{to document these facts.} The inability to produce the appropriate QA records makes the quality of these safety-related structures indeterminable and the NRC staff has concluded that LP&L must take additional actions, as described below, to resolve this issue.

Potential Violations: The inability to produce QA records for welds in safety-related structures is a violation of 10 CFR 50, Appendix B, Criterion XVII, "Quality Assurance Records." Criterion XVII requires that sufficient records be maintained to furnish evidence of activities affecting quality.

Furthermore, the possibility exists that because of the erroneous Class D categorization of materials in safety-related structures, the required QA activities were not performed, nor were the required QA records generated. Thus, there are potential violations of Criterion VIII, "Identification and Control of Materials, Parts, and Components"; Criterion IX, "Control of Special Processes"; and Criterion X, "Inspection." Criterion VIII requires the identification and control of materials, and Criterion IX requires the control of welding, inspection processes and personnel. Criterion X requires the establishment and execution of an inspection program.

Actions Required: If LP&L cannot produce the required QA documentation for the welding of "Class D" materials inside the containment vessel, they shall develop and implement a program to assure that the safety-related structural components have adequate quality so as not to adversely affect their structural integrity and safety-related functions. The program shall include a review of the structures in which Class D material was used and identification of those that are safety related. Actions taken by LP&L to resolve the issue shall utilize one of the following approaches or an equally suitable method.

See Item No. 15 in the Enclosure to the letter from D. Eisenhower to J.M. Cain (LP&L), dated June 13, 1984.

- o Demonstration that QA requirements were met through the review of supplier, contractor, and/or other records.
- o Demonstration that the structural component of concern does not have a significant safety function and hence that QA records are not necessary.
- o Appropriate nondestructive inspection and/or evaluations of appropriate structural welds.
- o Destructive analyses (materials property testing, chemical composition analyses, etc.) of a representative sample of welds.
- o Rewelding of critical components in accordance with approved QA and quality control (QC) procedures.

The results of LP&L's program shall be submitted to NRC and the NRC staff shall review the results to ensure that this issue has been satisfactorily resolved prior to fuel loading.

References

1. Assessment of Allegation A-258
2. Nonconformance Report ^{W3-} 6224 issued May 13, 1983
3. Code of Federal Regulations, Title 10, Part 50, Appendix B.
4. CB&I Quality Assurance Manual (welding & inspection activities)
5. Mat'l Certs. & Mat'l Test Reports for Class D materials
6. Master Checklist for control and certification of welding and inspecting operations
7. Magnetic particle examination reports for certain welds
8. List of certified CB&I welders for Waterford
9. CMTRs for weld rod purchased by CB&I for use at Waterford

Statement Prepared By:

J. Strosnider

Date

Reviewed By:

Team Leader

Date

Reviewed By:

Site Team Leader(s)

Date

Approved By:

Task Management

Date