

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, China**Report No:** NCR-000897**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 23-Nov-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0859**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: CB19 SP3149A and DP3178A CJP Weld
Procedural	Procedural	Description:	

Reference Description: Weld Procedure Requirements for New Welds Not Followed**Description of Non-Conformance:**

During Caltrans QA in process observations of the fabrication of Crossbeam CB19, this QA discovered the following issue(s):

ZPMC welding personnel did not appear to be following the NEW WELD PROCEDURE (Rager/McQuaid) with the following requirements:

3. Preparation for welding (3M)
5. Postweld Thermal Treatment (5A, 5C, 5D)

NOTE: The above tables are relative to sections 3, 5 of the NEW WELD PROCEDURE (Rager / Mc Quaid) and the corresponding paragraph letters.

The weld is identified as CB3003A-019-014

The welding process used was Flux Cored Arc Welding (FCAW)

The area was being preheated using electric strip heaters

The weld is a Complete joint penetration weld (CJP) joining Side Panel SP3149A SPCM to Deck Panel DP3178A SPCM.

The weld is Seismic Performance Critical Member (SPCM).

Crossbeam CB19 is located Bay 7.

For further information, please see the attached pictures below.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



Applicable reference:

3) Preparation for Welding (3M)

M. Preheat shall utilize the use of electric heaters and blankets and be applied in such a manner to provide a minimum temperature in the area of the weld of 140°C at all times until the weld joint is post weld thermal treated. (This includes applying preheat for CJP welds made from both sides and back gouged.)

5) Postweld Thermal Treatment (5A, 5C, 5D)

A. After welding is completed but before the temperature falls below that of the preheat temperature, post heat shall be applied to maintain the temperature in the area of the weld at 165 C - 225°C.

C. For material thickness over 25mm, post heating times will be increased by 112 hour for each increment of 12 mm or fraction thereof.

D. After the post weld heating time has been reached the repair shall be cooled by removing the heating source and leaving the blankets in place.

Who discovered the problem: D.Sukanthan

Name of individual from Contractor notified: Mr. Luo Lai Quan

Time and method of notification: 13:45 hours, 11-23-2010, Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 11:00 hours, 11-24-2010, Email

QC Inspector's Name:

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

NA

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh,(818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Devey,Jim SMR

Reviewed By: Wahbeh,Mazen SMR



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
 333 Burma Road
 Oakland CA 94607
 Tel: Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
 375 BURMA ROAD
 OAKLAND CA 95607

Date: 24-Nov-2010

Contract No: 04-0120F4
 04-SF-80-13.2 / 13.9

Dear: Mr. Charles Kanapicki
Job Name: SAS Superstructure

Attention: Mr. Thomas Nilsson Project/Fabrication Manager
Document No: 05.03.06-000854

Subject: NCR No. ZPMC-0859

Reference Description: Weld Procedure Requirements for New Welds Not Followed

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

Material Location: Xbeam **Lift:**

Remarks:

During Caltrans QA in process observations of the fabrication of Crossbeam CB19, Caltrans QA discovered the following issue(s): ZPMC welding personnel did not appear to be following the NEW WELD PROCEDURE (Rager/McQuaid) with the following requirements:

- 3. Preparation for welding (3M)
- 5. Postweld Thermal Treatment (5A, 5C, 5D)

NOTE: The above tables are relative to sections 3, 5 of the NEW WELD PROCEDURE (Rager / Mc Quaid) and the corresponding paragraph letters.

The weld is identified as CB3003A-019-014
 The welding process used was Flux Cored Arc Welding (FCAW)
 The area was being preheated using electric strip heaters
 The weld is a Complete joint penetration weld (CJP) joining Side Panel SP3149A SPCM to Deck Panel DP3178A SPCM.
 The weld is Seismic Performance Critical Member (SPCM).
 Crossbeam CB19 is located Bay 7.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 7 days.

Transmitted by: Laraine Woo Transportation Engineer

Attachments: ZPMC-0859

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Contract Files, Ching Chao, Bill Casey

NCT

(*Continued Page 2 of 2*)

File: 05.03.06

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000854

Subject: NCR No. ZPMC-0859

Dated: 29-Nov-2010

Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000852 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: The "NEW WELD PROCEDURE (Rager/McQuaid)" quoted as the basis for this NCR is not a contact document only a recommendation from the QA/QC Committee.

The "NEW WELD PROCEDURE (Rager/McQuaid)" quoted as the basis for this NCR is not a contact document only a recommendation from the QA/QC Committee. If the Department wants to incorporate the QA/QC committee's recommendations as a contract requirement a contract change order should be issued. As this NCR was written without basis it should be withdrawn.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000852R00

Caltrans' comments:

Status: REJ

Date: 03-Dec-2010

CT acknowledges contractor's response. However, successful NDT will close this NCR.

Submitted by: Chao, Ching

Date: 03-Dec-2010

Attachment(s):

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000854

Subject: NCR No. ZPMC-0859

Dated: 08-Dec-2010

Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000852 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: We understand your response and we will not submit the normal NCR closure package with NDT reports for this and expect that CT will close these as the green tags for these components are issued.

We understand your response and we will not submit the normal NCR closure package with NDT reports for this and expect that CT will close these as the green tags for these components are issued.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000852R01

Caltrans' comments:

Status: REJ

Date: 09-Dec-2010

Normal NCR closure package with NDT reports shall be submitted with the NPR to close out the NCR.

Submitted by: Woo, Laraine

Date: 09-Dec-2010

Attachment(s):

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000854

Subject: NCR No. ZPMC-0859

Dated: 01-Mar-2011

Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000852 Rev: 02

Contractor's Proposed Resolution:

Reference Resolution: Attached are NDT showing the weld in question is acceptable.

Attached are NDT showing the weld in question is acceptable. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000852R02;

Caltrans' comments:

Status: CLO

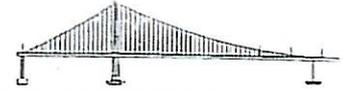
Date: 02-Mar-2011

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0859 is closed.

Submitted by: Eagen, Sean

Attachment(s):

Date: 02-Mar-2011

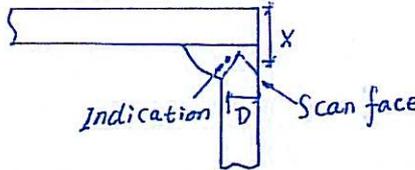


UT Report

Project Name: SFOBB SAS Bridge. Date: 2010.12.24

Lift / Segment No.: CB19	Report Number: UT-CB19-002 R3
Drawing Number: CB3003A	Page Number: 1 of 2
Component: DP to SP-E (R3)	Tower / OBG: OBG

Refer to the attached sketch.



Material: A709	Thickness: 18/20	Examination Specification: AWS D1.5
Surface Condition: <input type="checkbox"/> As Welded <input checked="" type="checkbox"/> Dressed	Acceptance Criteria: AWS D1.5 Table 6.3 7.6.4	
Type of Instrument: HS6102	Test Procedure Number: ZPQC-UT-01	
Serial Number: 61216 / 6121731	Reference Block: IIW	
Type of Transducer: 2.5P20; 2-25/75x.625	Couplant: CMC Paste	
Transducer Angle: 0°; 170°	Welding Process: <input type="checkbox"/> FCAW <input checked="" type="checkbox"/> SMAW <input type="checkbox"/> GMAW <input type="checkbox"/> SAW	

Weld Number.	Indication No.	Scan Face	Leg	Decibels				Discontinuity Dimensions (mm)				Evaluation	Inspector	Inspection %	
				Indication Level	Reference Level	Attenuation Factor	Indication Rating	Length	Sound Path	Depth	Distance				
											From "X"				From "Y"
a	b	c	d												
DP to SP-E (CB3003A-019-014)	/	outside	/	/	/	/	/	/	/	/	/	Acc	S021	100%	

Observation: Scanning Pattern: A/B/C/D/E
 Pattern D conducted inline with Transverse Segment Assembly Splice Ultrasonic Testing Procedure.

Time of Inspection
 Start:- 2010.12.24 13:00
 Completed:- 2010.12.24 16:00

Legend: ACC--Accept. REJ--Reject, TLI--Transverse Linear Indication, LLI--Longitudinal Linear Indication, RI--Rounded Indication, LF--Lack of Fusion.

Prepared By:		Reviewed By:	
Name	Diny Basma	Name	STEVE LAWRENCE
Sign	<i>[Signature]</i> BH (5002)	Sign	<i>[Signature]</i>
Position		Position	FGM / LEVEL 10
Date	2010.12.24	Date	27 DEC. 10

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, China**Report No:** NCS-000906**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 02-Mar-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0859**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component:
Procedural	Procedural	Descriptor:	

Date the Non-Conformance Report was written: 23-Nov-2010**Description of Non-Conformance:**

During Caltrans QA in process observations of the fabrication of Crossbeam CB19, this QA discovered the following issue(s):

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The weld is a Complete joint penetration weld (CJP) joining Side Panel SP3149A SPCM to Deck Panel DP3178A SPCM.

The weld is Seismic Performance Critical Member (SPCM).

Crossbeam CB19 is located Bay 7.

For further information, please see the attached pictures below.

Contractor's proposal to correct the problem:

Contractor will provide the NDT report to prove the weld is acceptable.

Corrective action taken:

Contractor provided the NDT report. The NDT report shows the weld is acceptable.

Did corrective action require Engineer's approval?

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Yes No

If so, name of Engineer providing approval:

Date:

Is Engineer's approval attached? Yes No

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Wahbeh, Mazen 818-292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Ng,Michael

Quality Assurance Inspector

Reviewed By: Wahbeh,Mazen

QA Reviewer