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 #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P.R. China **Report No:** NCR-000437
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 19-Oct-2009
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0411

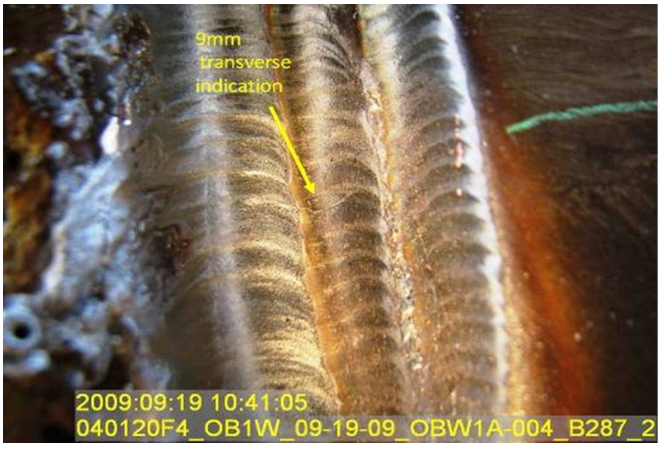
Type of problem:

Welding	☐	**Concrete**	☐	**Other**	☑	
Welding	☐	**Curing**	☐	**Procedural**	☐	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☑	**Component:** Side Panel Segment Splice at 1AAW to 1AW
Procedural	☐	**Procedural**	☐	**Description:**		Missed MT indication by QC

Reference Description: Missed MT Transverse Indications by QC on The Side Panel Segment Splice at 1AAW/1AW

Description of Non-Conformance:

The Quality Assurance (QA) Inspector observed on Sept 18, 2009 and Sept 19, 2009 three (3) visual Transverse Linear Indications in the repair gouges of weld OBW1A-004 (1AAW to 1AW Side Panel Splice at the crossbeam side). The indications were located and documented at Y locations of 5842mm, 6165mm and 6520mm respectively. These visual Transverse Indications were measured from the weld of the Bottom Panel to Side Panel progressing toward the Edge Panel. Subsequently, ZPMC QC performed MT and confirmed that these are transverse indications. This weld joint had been previously tested and accepted by ZPMC QC NDT department.



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Applicable reference:
Special Provisions Section 8.3;
1) “Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents.”
2) “The Engineer shall be notified immediately in writing when welding problems, deficiencies, base metal repairs, or any other type of repairs not submitted in the WQCP are discovered and also of the proposed repair procedures to correct them.”
3) “In addition to the provisions in AWS D1.5, Section 3.7.4 and Section 12.17, all repairs of cracks require prior approval of the Engineer.”
AWS D1.5 (02) Section 6.26.1.1 “The weld shall have no cracks”
Who discovered the problem: Bert Madison
Name of individual from Contractor notified: CK Chan
Time and method of notification: 0800 hours, Verbal
Name of Caltrans Engineer notified: Bill Howe, Ching Chao
Time and method of notification: 0800 hours, verbal
QC Inspector's Name: Wang Lu
Was QC Inspector aware of the problem: ☐ **Yes** ☑ **No**
Contractor's proposal to correct the problem:
N/A
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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By:	Tsang,Eric	SMR
Reviewed By:	Wahbeh,Mazen	SMR

DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
666 Feng Bin Road Room 708, Changxing Island
Shanghai 201913 PR China
Tel: 021-56856666 ext 207061 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To:	AMERICAN BRIDGE/FLUOR, A JV 375 BURMA ROAD OAKLAND CA 95607	**Date:**	02-Oct-2009
		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:**	05.03.06-000402
Subject:	NCR No. ZPMC-0411		

Reference Description: Missed MT Transverse Indications by QC on The Side Panel Segment Splice at 1AAW/1AW

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: OBG **Lift:** 01

Remarks:

The Quality Assurance (QA) Inspector observed on Sept 18, 2009 and Sept 19, 2009 three (3) visual Transverse Linear Indications in the repair gouges of weld OBW1A-004 (1AAW to 1AW Side Panel Splice at the crossbeam side). The indications were located and documented at Y locations of 5842mm, 6165mm and 6520mm respectively. These visual Transverse Indications were measured from the weld of the Bottom Panel to Side Panel progressing toward the Edge Panel. Subsequently, ZPMC QC performed MT and confirmed that these are transverse indications. This weld joint had been previously tested and accepted by ZPMC QC NDT department. Please see attached NCR No. ZPMC-411 for details.

Action Required and/or Action Taken:

Propose a resolution for the identified recurring non-conformance which constitutes a systematic problem on both materials/workmanship and quality control issues with revised procedures to remedy the defected work and to prevent future occurrences. A response for the resolution of this issue is expected within 14 days.

Transmitted by: Ching Chao

Attachments: ZPMC-0411

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Doug Coe, Jason Tom, Contract Files, Ching Chao, Bill Howe

File: 05.03.06

AMERICAN BRIDGE/FLUOR ENTERPRISES, a JV

P.O. BOX 23223 Oakland, CA 94623

Phone (510) 419-0120 / Fax (510) 839-0666

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000402

Subject: NCR No. ZPMC-0411

Dated: **16-Oct-2009**

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

Job Name: SAS Superstructure

Document No.: **ABF-NPR-000397 Rev: 00**

Contractor's Proposed Resolution:

Reference Resolution: ABFJV QCM has implemented training with ZPMC to improve the quality of inspections. ABFJV will provide documentation showing attendance by ZPMC QC inspectors and the subject of training.

ABFJV QCM has implemented training with ZPMC to improve the quality of inspections. ABFJV will provide documentation showing attendance by ZPMC QC inspectors and the subject of training. Topics to be covered during the instruction are: inspection of equipment prior to use, proper conditions for inspection, proper technique for MT, and UT. In addition, ABFJV has committed to perform overchecks in both the Tower and OBG. This will serve two purposes, first to monitor if the training is effective at reducing the number of missed indications and second to ensure missed indications are prevented.

Documentation of repairs and subsequent NDT specific to this report will be transmitted through Daily Welding Reports and will be available in the documentation data base. Based on this course of action, ZPMC is requesting that this proposed resolution be approved with action pending. Once training records are available to be transmitted, ZPMC will request closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000397R00

Caltrans' comments:

Status: REJ

Date: 19-Oct-2009

The proposed resolution for training the QC inspectors is acceptable. However, documentation of repairs and subsequent NDT specific to this NCR should be submitted, along with the training records, for the Department's review prior to closure of the NCR.

Submitted by: Chao, Ching

Date: 19-Oct-2009

Attachment(s):

AMERICAN BRIDGE/FLUOR ENTERPRISES, a JV

P.O. BOX 23223 Oakland, CA 94623

Phone (510) 419-0120 / Fax (510) 839-0666

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000402

Subject: NCR No. ZPMC-0411

Dated: **30-Nov-2009**

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

Job Name: SAS Superstructure

Document No.: **ABF-NPR-000397 Rev: 01**

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has repaired the indications documented in the NCR. ABFJV and Caltrans has conducted the NDT and found that the welds are acceptable which is included in the attached documents.

ZPMC has repaired the indications documented in the NCR. ABFJV and Caltrans has conducted the NDT and found that the welds are acceptable which is included in the attached documents. Based on tis ZPMC is requesting closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000397R01;

Caltrans' comments:

Status: CLO

Date: 03-Dec-2009

The documentation submitted has been reviewed by the Engineer and is found to be acceptable.

Submitted by: Chao, Ching

Date: 03-Dec-2009

Attachment(s):

No. B-503

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2009-11-27

REGARDING: NCR-000389/437/471/474/476/483 (ZPMC-0363/411/444/447/449/456)

With this letter of response, ZPMC requests closure for Caltrans **NCR-000389/437/471/474/476/483 (ZPMC-0363/411/444/447/449/456)**。The above NCR are all about the segment transverse splice weld repair, we have got related CWR approval from the caltrans engineer, the comments and procedure have been used for the repair process. The issue is did more concerned by all three parties, those weld has been complete repair and verified by ABF and caltrans inspector on site, base on the acceptable attached report we are applying to close out the NCRs.

The transverse splice weld all passed through the UT D scanning with the ABF's new procedure, that's mean no any transverse indication internal even the blue points which less than the contract specification and AWS' NDT requirement.

so base on the above explanation, ZPMC applies to close the caltrans's report **NCR-000389/437/471/474/476/483 (ZPMC-0363/411/444/447/449/456)**。

Please reference attached document for acceptance and closure the **NCR-000389/437/471/474/476/483 (ZPMC-0363/411/444/447/449/456)**。

ATTACHMENT:

NCR-000389/437/471/474/476/483 (ZPMC-0363/411/444/447/449/456)

The accepted UT report from ABF

Zhao Shuangbao

2009. 11. 27

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:**	31-Aug-2009
		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:**	05.03.06-000352
Subject:	NCR No. ZPMC-0363		

Reference Description: Missed UT indications by QC on 1AW/1BW Segment Transverse Splice

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: OBG **Lift:** 01

Remarks:

This Quality Assurance (QA) Inspector performed Ultrasonic Testing (UT) of Segment Assembly Transverse Splice Weld #OBW1A-007. QA Inspector discovered UT indications that did not meet the minimum acceptance criteria of AWS D1.5-2002, Table 6.3. A total of nine (9) transverse indications were discovered in the weld mentioned above. The indications were detected utilizing scanning pattern "E" or scanning pattern "D" as described in AWS D1.5, Figure 6.7 on areas where the weld surface condition permitted scanning on top of the weld. These welds have been 100% UT tested and accepted by ZPMC Quality Control (QC).

Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval.

Note: Missed indications after 100% UT testing by ZPMC welding inspectors is frequent.

Transmitted by: Bill Howe

Attachments: ZPMC-0363

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Doug Coe, Jason Tom, Contract Files, Ching Chao

File: 05.03.06

STATE OF CALIFORNIA--BUSINESS,TRANSPORTACTION AND HOUSING AGENCY Arnold Schwarzenegger, Governor

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 #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P.R. China
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

Report No: NCR-000389
Date: 24-Aug-2009
NCR #: ZPMC-0363

Type of problem:

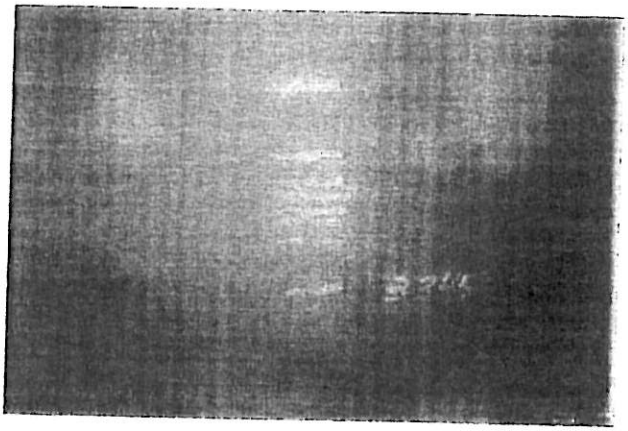
Welding	☐	**Concrete**	☐	**Other**	☑
Welding	☐	**Curing**	☐	**Procedural**	☐
Joint fit-up	☐	**Coating**	☐	**Other**	☑
Procedural	☐	**Procedural**	☐	**Description:**	

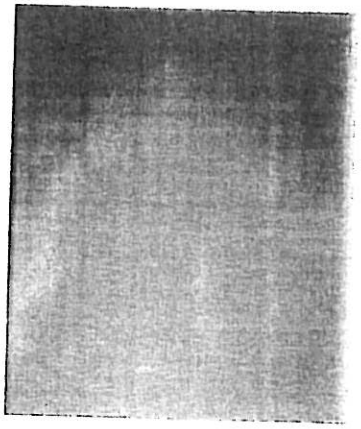
Bridge No: 34-0006 C5
Component: 1AW/1BW OBG Segment Splice

Reference Description: Missed UT indications by QC on 1AW/1BW Segment Transverse Splice

Description of Non-Conformance:

This Quality Assurance (QA) Inspector performed Ultrasonic Testing (UT) of Segment Assembly Transverse Splice Weld #OBW1A-007. QA Inspector discovered UT indications that did not meet the minimum acceptance criteria of AWS D1.5-2002, Table 6.3. A total of nine (9) transverse indications were discovered in the weld mentioned above. The indications were detected utilizing scanning pattern "E" or scanning pattern "D" as described in AWS D1.5, Figure 6.7 on areas where the weld surface condition permitted scanning on top of the weld. These welds have been 100% UT tested and accepted by ZPMC Quality Control (QC).





Applicable reference:
AWS D1.5/2002 Table 6.3
Who discovered the problem: Stefan Holmes
Name of individual from Contractor notified: Steve Lawton
Time and method of notification: 1300, verbal
Name of Caltrans Engineer notified: Ching Chao

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Time and method of notification: 1400, verbal

QC Inspector's Name: Wang Lu

Was QC Inspector aware of the problem: ☐ Yes ☑ No

Contractor's proposal to correct the problem:

N/A

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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By:	Tsang,Eric	SMR
Reviewed By:	Wahbeh,Mazen	SMR

DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
666 Feng Bin Road Room 708, Changxing Island
Shanghai 201913 PR China
Tel: 021-56856666 ext 207061 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

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

Date: 02-Oct-2009

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

Dear: Mr. Charles Kanapicki

Attention: Mr. Thomas Nilsson Project/Fabrication Manager

Job Name: SAS Superstructure

Subject: NCR No. ZPMC-0411

Document No: 05.03.06-000402

Reference Description: Missed MT Transverse Indications by QC on The Side Panel Segment Splice at 1AAW/1AW

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: OBG **Lift:** 01

Remarks:

The Quality Assurance (QA) Inspector observed on Sept 18, 2009 and Sept 19, 2009 three (3) visual Transverse Linear Indications in the repair gouges of weld OBW1A-004 (1AAW to 1AW Side Panel Splice at the crossbeam side). The indications were located and documented at Y locations of 5842mm, 6165mm and 6520mm respectively. These visual Transverse Indications were measured from the weld of the Bottom Panel to Side Panel progressing toward the Edge Panel. Subsequently, ZPMC QC performed MT and confirmed that these are transverse indications. This weld joint had been previously tested and accepted by ZPMC QC NDT department. Please see attached NCR No. ZPMC-411 for details.

Action Required and/or Action Taken:

Propose a resolution for the identified recurring non-conformance which constitutes a systematic problem on both materials/workmanship and quality control issues with revised procedures to remedy the defected work and to prevent future occurrences. A response for the resolution of this issue is expected within 14 days.

Transmitted by: Ching Chao
Attachments: ZPMC-0411

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Doug Coe, Jason Tom, Contract Files, Ching Chao, Bill Howe
File: 05.03.06

05.03.06-000402,NCT

STATE OF CALIFORNIA--BUSINESS,TRANSPORTACTION AND HOUSING AGENCY — Arnold Schwarzenegger, Governor

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
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P.R. China
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

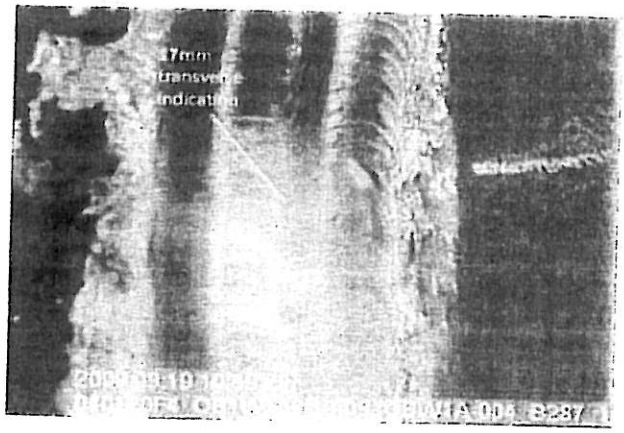
Report No: NCR-000437
Date: 19-Oct-2009
NCR #: ZPMC-0411

Type of problem:

Welding	☐	**Concrete**	☐	**Other**	☑	
Welding	☐	**Curing**	☐	**Procedural**	☐	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☑	**Component:** Side Panel Segment Splice at 1AAW to 1AW
Procedural	☐	**Procedural**	☐			**Description:** Missed MT indication by QC

Reference Description: Missed MT Transverse Indications by QC on The Side Panel Segment Splice at 1AAW/1AW

Description of Non-Conformance:
The Quality Assurance (QA) Inspector observed on Sept 18, 2009 and Sept 19, 2009 three (3) visual Transverse Linear Indications in the repair gouges of weld OBW1A-004 (1AAW to 1AW Side Panel Splice at the crossbeam side). The indications were located and documented at Y locations of 5842mm, 6165mm and 6520mm respectively. These visual Transverse Indications were measured from the weld of the Bottom Panel to Side Panel progressing toward the Edge Panel. Subsequently, ZPMC QC performed MT and confirmed that these are transverse indications. This weld joint had been previously tested and accepted by ZPMC QC NDT department.



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Applicable reference:
Special Provisions Section 8.3;
1) "Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents."
2) "The Engineer shall be notified immediately in writing when welding problems, deficiencies, base metal repairs, or any other type of repairs not submitted in the WQCP are discovered and also of the proposed repair procedures to correct them."
3) "In addition to the provisions in AWS D1.5, Section 3.7.4 and Section 12.17, all repairs of cracks require prior approval of the Engineer."
AWS D1.5 (02) Section 6.26.1.1 "The weld shall have no cracks"

Who discovered the problem: Bert Madison
Name of individual from Contractor notified: CK Chan
Time and method of notification: 0800 hours, Verbal
Name of Caltrans Engineer notified: Bill Howe, Ching Chao
Time and method of notification: 0800 hours, verbal
QC Inspector's Name: Wang Lu
Was QC Inspector aware of the problem: ☐ Yes ☑ No
Contractor's proposal to correct the problem:
N/A
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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By:	Tsang,Eric	SMR
Reviewed By:	Wahbeh,Mazen	SMR

STATE OF CALIFORNIA--BUSINESS,TRANSPORTACTION AND HOUSING AGENCY
Arnold Schwarzenegger, Governor

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
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Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P.R. China
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

Report No: NCR-000471
Date: 07-Oct-2009
NCR #: ZPMC-0444

Type of problem:

Welding	☑	**Concrete**	☐	**Other**	☐
Welding	☐	**Curing**	☐	**Procedural**	☐
Joint fit-up	☐	**Coating**	☐	**Other**	☐
Procedural	☑	**Procedural**	☐	**Description:**	

Bridge No: 34-0006
Component: 1AW to 1BW Weld #OBW1A-007

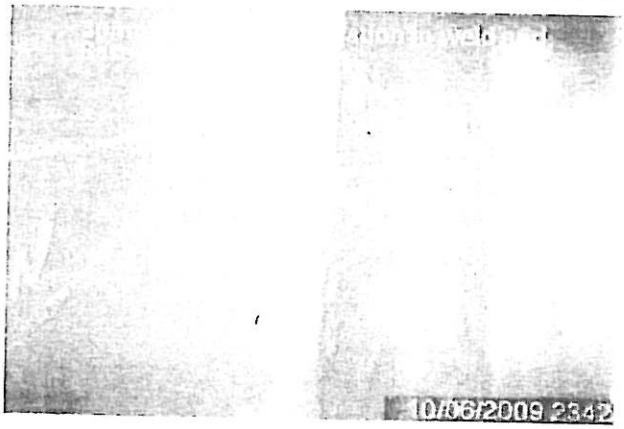
Reference Description: ZPMC performed weld repair without performing MT to ensure the excavation is free of defect.

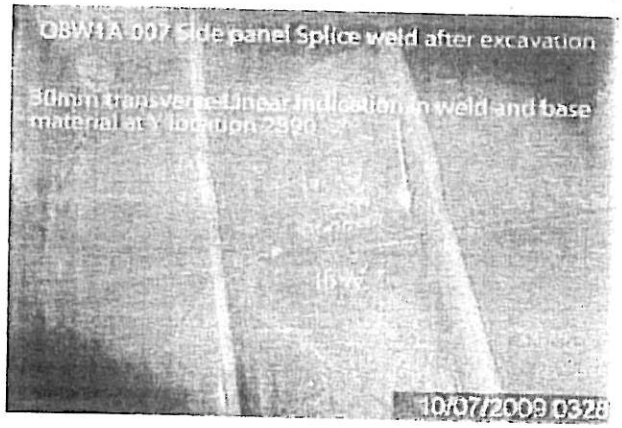
Description of Non-Conformance:

During a random visual observation of ZPMC personnel performing air carbon arc gouging of segment 1AW to 1BW Side Panel transverse splice weld OBW1A-007 at the Counterweight side, the Caltrans Quality Assurance (QA) inspector observed ZPMC was performing this repair utilizing the weld repair report (B-WR8086). This weld repair report did not describe any magnetic particle testing (MT) verifications in the excavation prior to re-welding nor after the completion of welding to ensure that the joint is free of defects. The QA Inspector had the opportunity to perform MT after air carbon arc gouging and observed numerous transverse cracks present ranging from 2 mm to 30 mm in length. No Critical Weld Repair Report was obtained for this weld repair.

The Y locations and the number of Transverse Cracks observed in weld # OBW1A-007:
1) Y=50~2475mm , (14) Transverse Cracks
2) Y=2720~5030mm, (29) Transverse Cracks

Note: Y location taken from Bottom Panel to Side Panel splice weld at the Counterweight side.





Applicable reference:
Special Provisions 8-3; In addition to the provisions in AWS D1.5, Section 3.7.4 and Section 12.17, regardless of NDT method, and all repairs of cracks require prior approval of the Engineer. The Engineer shall be notified immediately in writing when welding problems, deficiencies, base metal repairs, or any other type of repairs not submitted in the WQCP are discovered and also the proposed repair procedures to correct them.

AWS D1.5-2002 Section 3.7.2.4 Crack in Weld or Base Metal; The extent of the crack shall be ascertained by the use of MT, PT, or other equally positive means; the metal shall be removed for the full length of the crack plus 50mm [2"] beyond the end of each crack and re-welded.

AWS D1.5-2002 Section 6.26.2; "Welds that are subject to RT or MT in addition to visual inspection shall have no cracks and shall be unacceptable if the RT or MT shows any of the types of discontinuities described in 6.26.2.1, 6.26.2.2, 6.26.2.3, or 6.26.2.4".

AWS D1.5-2002 Section 6.26.1; "The weld shall have no cracks."
Who discovered the problem: Larry Viars
Name of individual from Contractor notified: Mike William
Time and method of notification: 0700 hours, Verbal
Name of Caltrans Engineer notified: Ching Chao
Time and method of notification: 0800 hours, Email
QC Inspector's Name: Wang Lu
Was QC Inspector aware of the problem: ☐ **Yes** ☑ **No**
Contractor's proposal to correct the problem:
N/A
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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By: Carreon,Albert Lead Reviewer/Task Leader

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:**	12-Nov-2009
		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:**	05.03.06-000437
Subject:	NCR No. ZPMC-0447		

Reference Description: Missed MT Indications by QC on OBG Segment 1AW/1BW Transverse Splice

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: OBG **Lift:** 01

Remarks:

During a random visual inspection of repair work located at 1AW to 1BW side panel segment transverse splice weld OBW1A-007, the Caltrans Quality Assurance (QA) Inspector observed ZPMC workers performing repair excavations at two (2) separate areas along this weld splice. The QA Inspector performed Magnetic Particle testing (MT) at the excavated areas that had been previously tested and accepted by ZPMC MT technician. This QA inspector observed seven (7) Transverse Cracks present in the 2 excavation areas. The submitted critical weld repair procedure (CWR) for this location has not been approved by the Engineer prior to the repair work being started. The Y locations, length of excavated area and number of Transverse Cracks are as followed:

Transverse Weld Splice OBW1A-007

1. Y location 150mm, length of excavation 2,400mm, one (1) indication verified.
2. Y location 760~920mm, length of excavation 2,400mm, three (3) indications verified.
3. Y location 2,650mm, length of excavation 2,300mm, one (1) indication verified.
4. Y location 2,800mm, length of excavation 2,300mm, one (1) indication verified (in 1AW base metal).
5. Y location 3,400mm, length of excavation 2,300mm, one (1) indication verified.
6. Y location 4,600mm, length of excavation 2,300mm, one (1) indication verified.

Note: Measurements were pulled from the Bottom Plate to Side Plate weld joint at W3.

Action Required and/or Action Taken:

Submit a repair procedure for the approval of the engineer. Do not start weld repair until the CWR has been approved by the engineer. Missed MT indications have become a chronic problem. Provide training and tests to verify MT technician competency.

Transmitted by: Bill Howe

Attachments: ZPMC-0447

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Doug Coe, Jason Tom, Contract Files, Ching Chao
File: 05.03.06

STATE OF CALIFORNIA--BUSINESS,TRANSPORTACTION AND HOUSING AGENCY
Arnold Schwarzenegger, Governor

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 #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P. R. China
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

Report No: NCR-000474
Date: 09-Oct-2009
NCR #: ZPMC-0447

Type of problem:

Welding	☑	**Concrete**	☐	**Other**	☐
Welding	☐	**Curing**	☐	**Procedural**	☐
Joint fit-up	☐	**Coating**	☐	**Other**	☐
Procedural	☑	**Procedural**	☐	**Description:**	

CS

Bridge No: 34-0006
Component: 1AW to 1BW Side Panel Splice Weld OBW1A-007

Reference Description: Missed MT Indications by QC on OBG Segment 1AW/1BW Transverse Splice

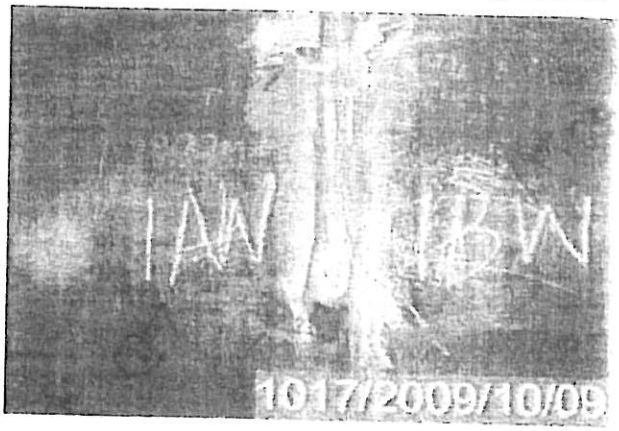
Description of Non-Conformance:

During a random visual inspection of repair work located at 1AW to 1BW side panel segment transverse splice weld OBW1A-007, the Caltrans Quality Assurance (QA) Inspector observed ZPMC workers performing repair excavations at two (2) separate areas along this weld splice. The QA Inspector performed Magnetic Particle testing (MT) at the excavated areas that had been previously tested and accepted by ZPMC MT technician. This QA inspector observed seven (7) Transverse Cracks present in the 2 excavation areas. The submitted critical weld repair procedure (CWR) for this location has not been approved by the Engineer prior to the repair work being started. The Y locations, length of excavated area and number of Transverse Cracks are as followed:

Transverse Weld Splice OBW1A-007

1. Y location 150mm, length of excavation 2,400mm, one (1) indication verified.
2. Y location 760~920mm, length of excavation 2,400mm, three (3) indications verified.
3. Y location 2,650mm, length of excavation 2,300mm, one (1) indication verified.
4. Y location 2,800mm, length of excavation 2,300mm, one (1) indication verified (in 1AW base metal).
5. Y location 3,400mm, length of excavation 2,300mm, one (1) indication verified.
6. Y location 4,600mm, length of excavation 2,300mm, one (1) indication verified.

Note: Measurements were pulled from the Bottom Plate to Side Plate weld joint at W3.



Applicable reference:
Special Provisions 8-3; In addition to the provisions in AWS D1.5, Section 3.7.4 and Section 12.17, regardless of NDT method, and all repairs of cracks require prior approval of the Engineer. The Engineer shall be notified immediately in writing when welding problems, deficiencies, base metal repairs, or any other type of repairs not submitted in the WQCP are discovered and also the proposed repair procedures to correct them.

AWS D1.5-2002 Section 3,7,2,4 Crack in Weld or Base Metal; The extent of the crack shall be ascertained by the use of MT, PT, or other equally positive means; the metal shall be removed for the full length of the crack plus 50mm [2"] beyond the end of each crack and re-welded.

AWS D1.5-2002 Section 6.26.2; "Welds that are subject to RT or MT in addition to visual inspection shall have no cracks and shall be unacceptable if the RT or MT shows any of the types of discontinuities described in 6.26.2.1, 6.26.2.2, 6.26.2.3, or 6.26.2.4".

AWS D1.5-2002 Section 6.26.1; "The weld shall have no cracks."
Who discovered the problem: Joe Alaniz
Name of individual from Contractor notified: Kevin Chen
Time and method of notification: 1050 hours, Verbal
Name of Caltrans Engineer notified: Ching Chao
Time and method of notification: 1200 hours, Email
QC Inspector's Name: Wang Lu
Was QC Inspector aware of the problem: ☐ **Yes** ☑ **No**
Contractor's proposal to correct the problem:
N/A
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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By: Carreon,Albert Lead Reviewer/Task Leader

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

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:**	17-Nov-2009
		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:**	05.03.06-000439
Subject:	NCR No. ZPMC-0449		

Reference Description: Missed UT indications by QC on 1AAW/1AW Segment Transverse Splice

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: OBG **Lift:** 01

Remarks:

Caltrans Quality Assurance (QA) Inspector performed ultrasonic testing (UT) verification of OBG segment designated 1AAW and 1AW transverse segment to segment splice repairs.

The QA inspector discovered one (1) class "A" rejectable Longitudinal Linear indication in the OBW1-001 (deck panel) weld. This weld was previously tested and accepted by the contractor. This acceptance by the contractor is evident by the presence of the contractor's distinguishing mark indicating QC acceptance. The QA inspector was also able to verify this UT longitudinal indication by magnetic particle (MT) testing from the interior side of the splice weld.

NOTE: The Y location of the Class "A" rejectable Longitudinal Linear Crack is at 5310-5340mm measured from Point W1, or 19750-19780mm if measured from W6. This indication is identified as #25 on ZPMC UT Report B787-UT-8548-1 associated with B-WR7867. The QA inspector verified a 40mm Magnetic Particle (MT) Linear Crack from the interior surface that is associated with Class "A" UT" Rejectable Indication mentioned above.

Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval.

Note: ZPMC QA personnel are missing rejectable indications on a routine basis. Further training and certification testing should be performed.

Transmitted by: Bill Howe

Attachments: ZPMC-0449

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

File: 05.03.06

05.03.06-000439,NCT

STATE OF CALIFORNIA--BUSINESS,TRANSPORTACTION AND HOUSING AGENCY — Arnold Schwarzenegger, Governor

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 #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.25B

QUALITY ASSURANCE — NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P. R. China
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

Report No: NCR-000476
Date: 09-Oct-2009
NCR #: ZPMC-0449

Type of problem:

Welding	☐	**Concrete**	☐	**Other**	☑
Welding	☐	**Curing**	☐	**Procedural**	☐
Joint fit-up	☐	**Coating**	☐	**Other**	☑
Procedural	☐	**Procedural**	☐		

A1

Bridge No: 34-0006
Component: 1AAW to 1AW Deck Panel Weld Splice OBW1-001
Description: Missed UT Indication by QC

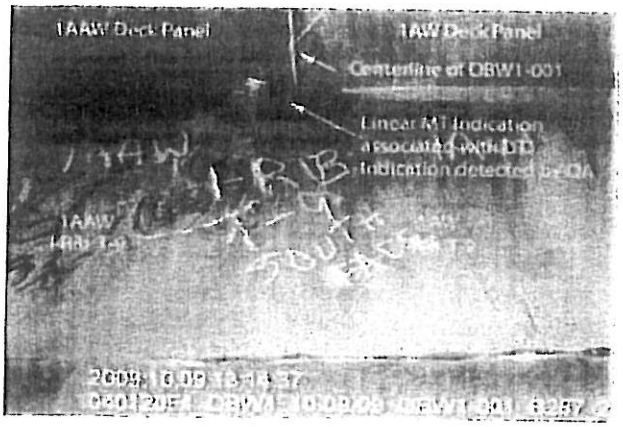
Reference Description: Missed UT indications by QC on 1AAW/1AW Segment Transverse Splice

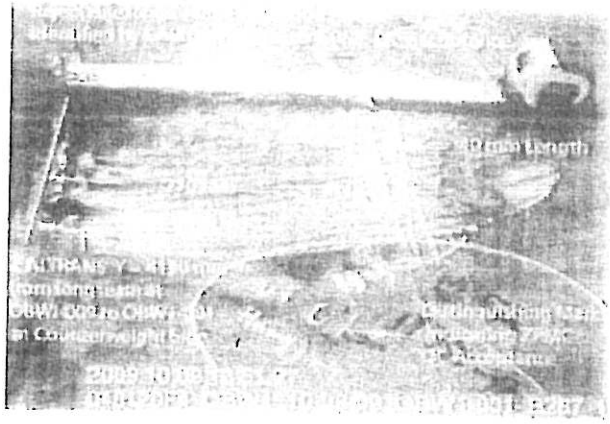
Description of Non-Conformance:

Caltrans Quality Assurance (QA) Inspector performed ultrasonic testing (UT) verification of OBG segment designated 1AAW and 1AW transverse segment to segment splice repairs.

The QA inspector discovered one (1) class "A" rejectable Longitudinal Linear indication in the OBW1-001 (deck panel) weld. This weld was previously tested and accepted by the contractor. This acceptance by the contractor is evident by the presence of the contractor's distinguishing mark indicating QC acceptance. The QA inspector was also able to verify this UT longitudinal indication by magnetic particle (MT) testing from the interior side of the splice weld.

NOTE: The Y location of the Class "A" rejectable Longitudinal Linear Crack is at 5310-5340mm measured from Point W1, or 19750-19780mm if measured from W6. This indication is identified as #25 on ZPMC UT Report B787-UT-8548-1 associated with B-WR7867. The QA inspector verified a 40mm Magnetic Particle (MT) Linear Crack from the interior surface that is associated with Class "A" UT" Rejectable Indication mentioned above.





Applicable reference:
AWS D1.5-02 Section 6.6.2 "The Contractor shall be responsible for visual inspection and NDT described in 6. 7 and necessary correction of all deficiencies in materials and workmanship in conformance with the requirements of Clause 3 and 6.26 and as specified elsewhere in the contract documents."

AWS D1.5-02 Section 6.26.3.1 "Welds that are subject to UT in addition to visual inspection shall be acceptable if they meet the following requirements:

(1) Welds subject to tensile stress under any condition of loading shall conform to the requirements of Table 6.3.

AWS D1.5-2002 Section 6.26.2; "Welds that are subject to RT or MT in addition to visual inspection shall have no cracks and shall be unacceptable if the RT or MT shows any of the types of discontinuities described in 6.26.2.1, 6.26.2.2, 6 .26.2.3, or 6.26.2.4".

AWS D1.5-2002 Section 6.26.1; "The weld shall have no cracks."
Who discovered the problem: Bert Madison
Name of individual from Contractor notified: Steve Lawton
Time and method of notification: 1800 hours, Verbal
Name of Caltrans Engineer notified: Ching Chao
Time and method of notification: 0800, Email
QC Inspector's Name: Wang Lu
Was QC Inspector aware of the problem: ☐ Yes ☑ No
Contractor's proposal to correct the problem:
N/A
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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Inspected By:	Carreon,Albert	Lead Reviewer/Task Leader
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: 17-Nov-2009

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: 05.03.06-000446

Subject: NCR No. ZPMC-0456

Reference Description: Missed MT Indication by QC on excavated welds prior to welding repair on 1AW/1AAW Side Panel Transverse Splice

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: OBG **Lift:** 01

Remarks:

During random visual inspection the QA Inspector performed Magnetic Particle Testing (MT) of an Ultrasonic Testing (UT) reject excavation in the segment CJP Side Plate splice (OBW1A-004), cross beam side joining SP397A (1AW) and PL1475A (1AAW). During this verification the QA Inspector discovered three (3) Transverse Cracks in the excavation. One (1) 2 mm crack was located at Y location 1945mm and two (2) 1mm cracks at Y location 2785mm from the cross beam side Edge Plate.

Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval.

Transmitted by: Bill Howe

Attachments: ZPMC-0456

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

File: 05.03.06

STATE OF CALIFORNIA--BUSINESS,TRANSPORTACTION AND HOUSING AGENCY Arnold Schwarzenegger, Governor

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 #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P. R. China
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

Report No: NCR-000483
Date: 17-Oct-2009
NCR #: ZPMC-0456

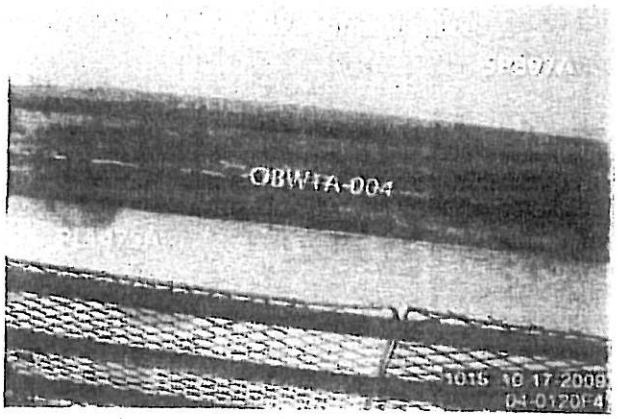
Type of problem:

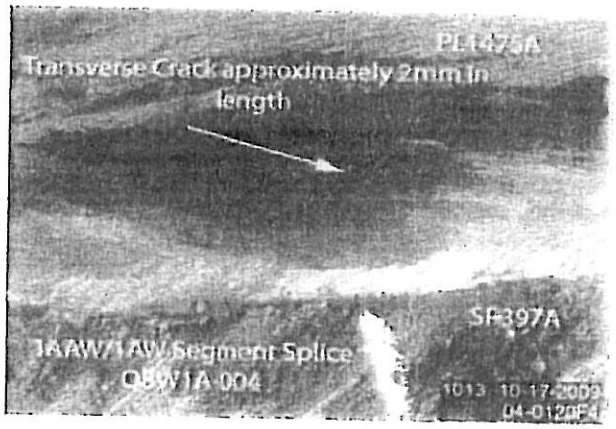
Welding	☐	**Concrete**	☐	**Other**	☑	
Welding	☐	**Curing**	☐	**Procedural**	☐	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☑	**Component:** 1AW to 1AAW Side Panel Splice Weld OBW1A-00
Procedural	☐	**Procedural**	☐			**Description:** Missed MT indication by QC

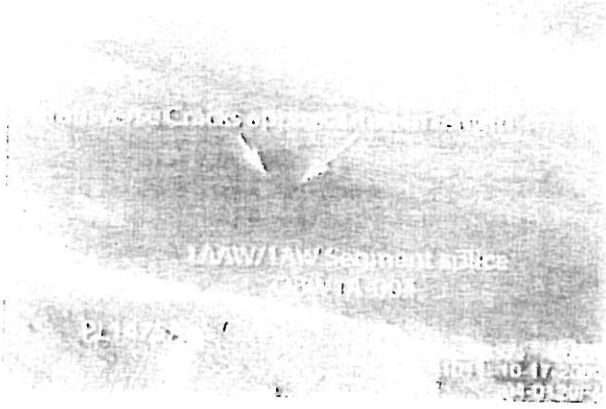
Reference Description: Missed MT Indication by QC on excavated welds prior to welding repair on 1AW/1AAW Side Panel Transverse Splice

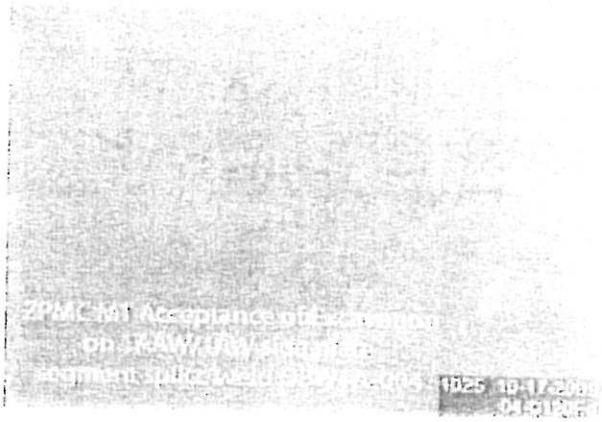
Description of Non-Conformance:

During random visual inspection the QA Inspector performed Magnetic Particle Testing (MT) of an Ultrasonic Testing (UT) reject excavation in the segment CJP Side Plate splice (OBW1A-004), cross beam side joining SP397A (1AW) and PL1475A (1AAW). During this verification the QA Inspector discovered three (3) Transverse Cracks in the excavation. One (1) 2 mm crack was located at Y location 1945mm and two (2) 1mm cracks at Y location 2785mm from the cross beam side Edge Plate.









Applicable reference:
Special Provisions 8-3; In addition to the provisions in AWS D1.5, Section 3.7.4 and Section 12.17, regardless of NDT method, and all repairs of cracks require prior approval of the Engineer. The Engineer shall be notified immediately in writing when welding problems, deficiencies, base metal repairs, or any other type of repairs not submitted in the WQCP are discovered and also the proposed repair procedures to correct them.

AWS D1.5-2002 Section 3,7,2,4 Crack in Weld or Base Metal; The extent of the crack shall be ascertained by the use of MT, PT, or other equally positive means; the metal shall be removed for the full length of the crack plus 50mm [2"] beyond the end of each crack and re-welded.

AWS D1.5-2002 Section 6.26.2; "Welds that are subject to RT or MT in addition to visual inspection shall have no
cracks and shall be unacceptable if the RT or MT shows any of the types of discontinuities described in 6.26.2. 1,
6.26.2.2, 6 .26.2.3, or 6.26.2.4".

AWS D1.5-2002 Section 6.26.1; "The weld shall have no cracks."
Who discovered the problem: Dan Hernandez
Name of individual from Contractor notified: Kevin Chen
Time and method of notification: 0930 hours, Verbal
Name of Caltrans Engineer notified: Ching Chao
Time and method of notification: 1030 hours, Email
QC Inspector's Name: Feng Ya Jun
Was QC Inspector aware of the problem: ☐ Yes ☑ No
Contractor's proposal to correct the problem:
N/A
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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Inspected By:	Carreon,Albert	Lead Reviewer/Task Leader
Reviewed By:	Wahbeh,Mazen	SMR

American Bridge / FLUOR

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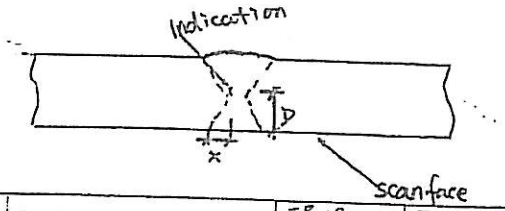
UT Report

Project Name: SFOBB SAS Bridge.

Date: 2009. 11. 25

Lift / Segment No.: 1AW/1AAW	Location: E7&E8 R3	Report Number: UT-1W-013 R2.
Refer to the attached sketch.	OBW1-005&004 R3	



Material:- A709	Thickness:-	E8:18 E7:28	Examination Specification:- AWS D1.5
Surface Condition:- ☐ As Welded ☑ Dressed			Acceptance Criteria:- AWS D1.5 Table 6.3
Type of Instrument:- HS610e			Test Procedure Number:- ZPQC-UT-01
Type of Transducer:- 2.5P20N; 2P20X20A70°			Reference Block:- IIW
Transducer Angle:- 0°; 70°			Couplant:- CMC Paste
Welding Process:- ☐ FCAW	☑ SMAW	☐ GMAW	☐ SAW

Weld No.	Indication No.	Scan Face	Dimensions (mm) "Y" from O Axis	"X"	Length "L"	Depth "D"	Indication Rating "d"	Evaluation	Inspector	Inspection Date
OBW1-004	1	outside	-	-	-	-	-	ACC.	5002	09.11.25

Observation:-

Scanning Pattern:- A, B, C, D

Pattern D conducted inline with Transverse Segment Assembly Splice Ultrasonic Testing Procedure.

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

Prepared By:-	ZPMC	ABFJV	Reviewed By:-	ABFJV
Name		Ding Bao Hua	Name	Peter Ferguson
Sign		Ding BH (5002)	Sign	
Position			Position	Fab. Superintendent
Date		2009.11.25	Date	25 Nov. 2009

American Bridge

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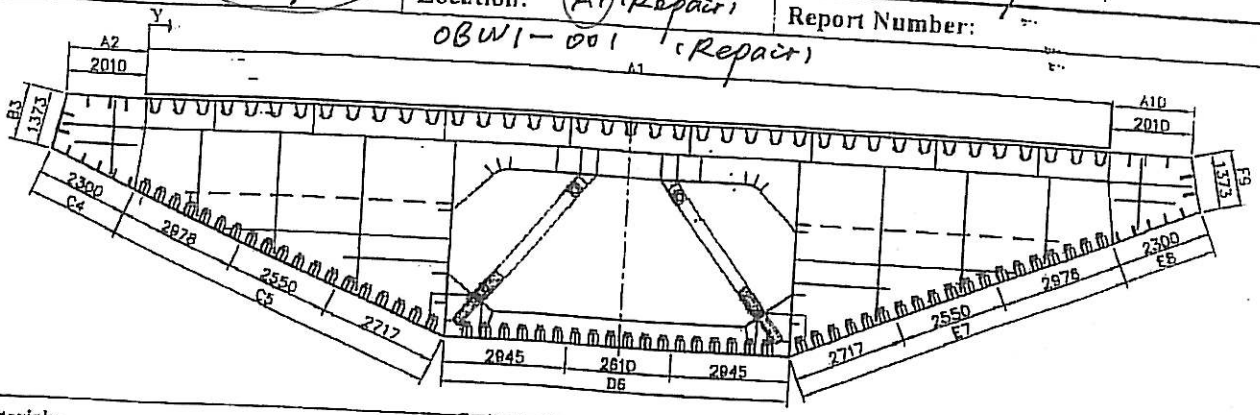
MT Report

Project Name: SFOBB SAS Bridge.

Lift / Segment No.: (AAW/IAW) **Location:** (A1 (Repair) **Date:** 2009.11.17

Report Number: OBW1-001 (Repair)



Material:-	A709M	**Examination Specification:-**	AWS D1.5
Thickness:-		**Acceptance Criteria:-**	AWS D1.5 - 6.26
Surface Condition:-	☑ As Welded ☐ Dressed	**Test Procedure Number:-**	ZPQC-MT-01 Rev2
Tested Surface Temperature:-	2°C	**Type of Current:-**	AC
Equipment Make / Model:-	CONTOUR PROBE/DA4005	**Particle Type:-**	DRY MAGNETIC POWDER
Type of Instrument:-	Electromagnetic Yokes	**Space of Pole:-**	50 – 100mm

Welding Process:- ☐ FCAW ☑ SMAW ☐ GMAW ☐ SAW

Item No.:	Location (Weld ID)	Dimensions (mm) From Y Axis	Dimensions (mm) Length	Indication Type	Result Acc. / Rej.	Examined By	Date	Remark
	OBW1-001-outside	/	/	/	Acc	YouYongliang	09.11.17	

Observation:- OBW1-001, MT location: Y=0~1000; 2450~2850; 5870~8460; 12570~14050; 16790~19050; 21390~22660

MT just only on UT scanning fail of repair Area.

Legend: ACC--Accept, REJ--Reject, TLI--Transverse Linear Indication, LLI--Longitudinal Linear Indication, RI--Rounded Indication, LF--Lack of Fusion, SP--Surface Porosity, UC--Undercut, UF--Underfill, TCR--Transverse Crack, LCR--Longitudinal Crack.

Prepared By:-	ZPMC	ABFJV	Reviewed By:-	ABFJV
Name		YouYongliang	Name	
Sign		YouYongliang	Sign	
Position			Position	
Date		2009.11.17	Date	

American Bridge FLUOR

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UT Report

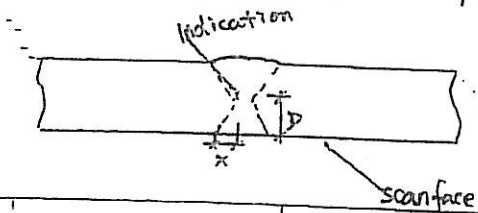
Project Name: SFOBB SAS Bridge.

Date: 2009.11.21

Lift / Segment No.: 1AW/1BW	Location: C5 (R3)	Report Number: UT-1W-009R2

Refer to the attached sketch.

OBW1A-007 After Repair (R3)



Material:- A709	Thickness:- 20/28	Examination Specification:-	AWS D1.5
Surface Condition:- ☐ As Welded ☑ Dressed		Acceptance Criteria:-	AWS D1.5 Table 6.3
Type of Instrument:- HS610e		Test Procedure Number:-	ZPQC-UT-01
Type of Transducer:- 2.5P20N; 2P20X20A70		Reference Block:-	IIW
Transducer Angle:- 0°; 70°		Couplant:-	CMC Paste
Welding Process:- ☐ FCAW ☑ SMAW ☐ GMAW ☐ SAW			

Weld No.	Indication No.	Scan Face	Dimensions (mm) "Y" from ⊙ Axis	"X"	Length "L"	Depth "D"	Indication Rating "d"	Evaluation	Inspector	Inspection Date
OBW1A-007	/	outside	/	/	/	/	/	Acc.	5002	09.11.21

Observation:-

Scanning Pattern:- A, B, C, D

Pattern D conducted inline with Transverse Segment Assembly Splice Ultrasonic Testing Procedure.

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

Prepared By:-	ZPMC	ABFJV	Reviewed By:-	ABFJV
Name		Wangzhenhua	Name	STEVE LAWTON
Sign		Wang ZH (5008)	Sign	[signature]
Position			Position	FQAM / LEVEL III
Date		2009.11.21	Date	21 Nov. 09

Document Number: OBGE-HR-04

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: xx.25A

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

Location: Changxing Island, Shanghai, P.R. China **Report No:** NCS-000394
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 25-Dec-2009
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0411

Type of problem:

Welding	☐	**Concrete**	☐	**Other**	☑	
Welding	☐	**Curing**	☐	**Procedural**	☐	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☑	**Component:**
Procedural	☐	**Procedural**	☐	**Descripton:**		

Date the Non-Conformance Report was written: 19-Oct-2009

Description of Non-Conformance:
The Quality Assurance (QA) Inspector observed on Sept 18, 2009 and Sept 19, 2009 three (3) visual Transverse Linear Indications in the repair gouges of weld OBW1A-004 (1AAW to 1AW Side Panel Splice at the crossbeam side). The indications were located and documented at Y locations of 5842mm, 6165mm and 6520mm respectively. These visual Transverse Indications were measured from the weld of the Bottom Panel to Side Panel progressing toward the Edge Panel. Subsequently, ZPMC QC performed MT and confirmed that these are transverse indications. This weld joint had been previously tested and accepted by ZPMC QC NDT department.

Contractor's proposal to correct the problem:
The contractor will repair the weld and perform NDT to verify that the weld is acceptable.

Corrective action taken:
ZPMC has repaired the indications documented in the NCR. ABFJV has conducted the NDT and found that the welds are acceptable.

Did corrective action require Engineer's approval? ☐ **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 Mazen Wahbeh, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By:	Tsang,Eric	Quality Assurance Inspector
Reviewed By:	Wahbeh,Mazen	QA Reviewer