

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, P.R. China**Report No:** NCR-000831**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 02-Sep-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0793**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Segment 9DW Bottom Panel
Procedural	Procedural	Description: Missed MT crack by QC	

Reference Description: QA found a crack in the bottom panel base metal at Segment 9DW by MT after ZPMC had tested and accepted base metal repair

Description of Non-Conformance:

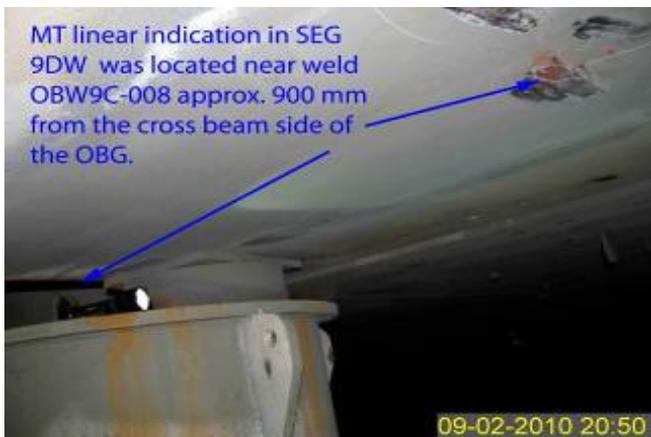
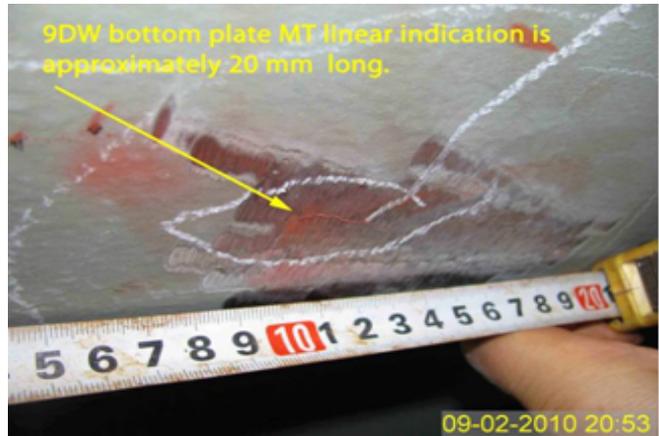
During Quality Assurance (QA) Magnetic Particle Testing (MT) inspections of temporary alignment plate weld removal areas on OBG segment 9DW Bottom Plate (BP), this QA Inspector discovered the following issue:

- One (1) linear crack was observed during a QA MT verification of BP154A base metal repair. The crack on the base metal is adjacent to transverse splice weld OBW9C-008.
- The "Y" location was approximately 900mm from the Cross Beam side near weld OBW9C-008.
- The "X" location was approximately 100mm from weld OBW9C-008.
- Length of the linear crack is approximately 20mm in length.
- The crack on the base metal was at the temporary attachment removal area.
- Weld OBW9C-008 is a transverse splice CJP weld that joins OBG segments 9DW and 9EW Bottom plates.
- Bottom Plate BP154A is classified as Seismic Performance Critical Member (SPCM).
- OBG segment 9DW is located in the Trial Assembly yard.

-The Notice of Witness Inspection Number (NWIT) is 006565 item #3. This MT crack is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. ZPMC's QC personnel performed 100% MT inspection of this temporary attachment base metal repair area.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

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”.

Special Provisions Section 8.3 – “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.”

Who discovered the problem: Paul Dawson
Name of individual from Contractor notified: Kelvin Cheung
Time and method of notification: 2130 hours, 9-02-10, Verbal
Name of Caltrans Engineer notified: Li Wang
Time and method of notification: 0730 hours, 09-03-10, Verbal
QC Inspector's Name: 0830 hours, 09-03-10, Verbal
Was QC Inspector aware of the problem: Yes No
Contractor's proposal to correct the problem:
N/A
Comments:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

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

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:	03-Sep-2010
Dear:	Mr. Charles Kanapicki	Contract No:	04-0120F4 04-SF-80-13.2 / 13.9
Attention:	Mr. Thomas Nilsson Project/Fabrication Manager	Job Name:	SAS Superstructure
Subject:	NCR No. ZPMC-0793	Document No:	05.03.06-000788

Reference Description: QA found a crack in the bottom panel base metal at Segment 9DW by MT after ZPMC had tested and accepted base metal repair

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:** 09

Remarks:

During Quality Assurance (QA) Magnetic Particle Testing (MT) inspections of temporary alignment plate weld removal areas on OBG segment 9DW Bottom Plate (BP), Caltrans QA Inspector discovered the following issue:

- One (1) linear crack was observed during a QA MT verification of BP154A base metal repair. The crack on the base metal is adjacent to transverse splice weld OBW9C-008.
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- The crack on the base metal was at the temporary attachment removal area.
- Weld OBW9C-008 is a transverse splice CJP weld that joins OBG segments 9DW and 9EW Bottom plates.
- Bottom Plate BP154A is classified as Seismic Performance Critical Member (SPCM).
- OBG segment 9DW is located in the Trial Assembly yard.
- The Notice of Witness Inspection Number (NWIT) is 006565 item #3. This MT crack is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. ZPMC's QC personnel performed 100% MT inspection of this temporary attachment base metal repair area.

Action Required and/or Action Taken:

Proposed 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-0793

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, 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

Dated: 24-Sep-2010

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

Attention: Siegenthaler, Peter
Resident Engineer

Job Name: SAS Superstructure

Document No.: ABF-NPR-000795 **Rev:** 00

Ref: 05.03.06-000788

Subject: NCR No. ZPMC-0793

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has repaired the indication in accordance with the attached CWR and is providing NDT done after to show that the weld is acceptable.

ZPMC has repaired the indication in accordance with the attached CWR and is providing NDT done after to show that the weld is acceptable. For future work to decrease incidents of missed indications, inspectors who miss indications are being tracked to ensure that they are accountable for their work if there is a systematic issue they will be reprimanded. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000795R00;

Caltrans' comments:

Status: REJ

Date: 07-Oct-2010

This NCR was issued for missed crack in base material on Bottom Plate, BP154A (PL798A) in Segment 9DW. The CWR submitted by the Contractor references PL1290D, and post repair NDT report references weld number OBW9C-008. Quality management issue has been addressed. However, repair and NDT documentation correlating to the area in question are required for closure.

Submitted by: Woo, Laraine

Date: 07-Oct-2010

Attachment(s):



No. B-894

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-9-24

REGARDING: NCR-000831 (ZPMC-0793)

For this case, ZPMC has issue an internal NCR to address this issue. The missed indications now have been repaired and the component was tested to be acceptable. The CWR number is B-CWR1884. ZPMC is providing NDT record for review. Based on this, please consider closure of this NCR.

ATTACHMENT:

NCR-000831 (ZPMC-0793)

B-CWR1884

B787-MT-27162R1

Zhao Jia new
2010-9-24



车间/Location

OUT SHOP

关键焊缝返修报告

Critical Welding Repair Report (CWIR)

版本 Rev. No.

1

项目名称 Project Name	SFOGB	部件图号 Drawing No	SLW/9EW	报告编号 Report No.	B CWR1824
部件号 Part No.	06-0120F4	部件名称 Items Name	PL1290D	NDT报告编号 Report No. of NDT	B787-MI-27162
项目编号 Project No.	ZP06-787				

焊缝缺陷描述:

Description of welding discontinuity:

(母材表面损伤修补)
Base metal repair

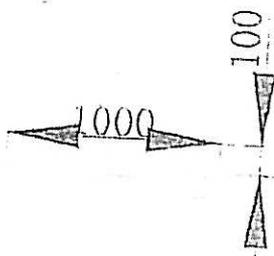
Plate No.(板编号) : PL1290D

Welding position (焊接位置) : 4G

检验员 (Inspector) : Xie Genlin *Xie Genlin* 日期(Date) : 2010.09.03

焊缝返修位置示意图:

Draft of welding discontinuity:



This document is APPROVED
State of California
DEPARTMENT OF TRANSPORTATION
Pursuant to Section 1.02 of the
Standard Specifications

Initial *GD* Date: 9/13/10

产生原因:

Caused:

工人操作失误, 导致材料损伤。

Worker operated error caused base metal damaged.

处理意见

审批负责人(Foreman): Ana Piquero 日期(Date): 11-09-13

Disposition

1. QC和CWI在整个修补过程中都应在场并指导以确保返修按照处理意见以及AWS D1.5要求进行;
 2. 按照焊接返修工艺规程(WPS)打磨缺陷区域至光滑;
 3. 准备一个正确的接头形式, 具体参见返修的WPS;
 4. 在NDT检测前口头通知QA, 对返修区域作100%MT和100%VT检查;
 5. 如果仍发现有缺陷, 通过打磨的方法去除所有缺陷以确认缺陷完全被消除, 并重复第四步以确认缺陷完全被消除;
 6. 将杂物以及MT检测遗留的残留物清理干净;
 7. 根据批准的焊接返修工艺规程(WPS)进行预热及焊接;
 8. 将焊接区域打磨至与母材平齐;
 9. 在NDT检测前口头通知QA, 对返修区域作100%MT和100%VT检查。
-
1. QC and CWI should be present to witness the repair, direct and supervise all repair operations during this repair to ensure the repair is per the disposition requirements, and the AWS D1.5 code requirements.
 2. Grind the repair area to a smooth finish according to the approved repair WPS.
 3. Prepare the joint according to the approved WPS.
 4. Notify QA verbally prior to NDT. Perform 100%MT and 100%VT of the repair area.
 5. Remove all defects by grinding to ensure all defects are completely removed if defects still exist, and repeat "step 4" to assure complete removal of all defects if necessary.
 6. Clean the repair area of all loose debris including MT powder.
 7. Preheat and weld according to the approved WPS.
 8. Grind the weld flush after welding.
 9. Notify QA verbally prior to NDT. Perform 100%MT and 100%VT of the repair area.

Technical engineer: Xu Douglas

审批: Approved by: Lu Diachen

日期: Date: 11/09/13

Verified by: BZST P-3-10
1610

#R787 QCP 1200

This document is APPROVED
State of California
DEPARTMENT OF TRANSPORTATION
Pursuant to Section 6-1.02 of the
Standard Specifications
Initial: [Signature] Date: 9/13/10



关键焊缝返修报告
Critical Welding Repair Report (CWR)

Rev. No. 0

Project Name	SI 085	Drawing No.	3DW/9EW	Report No.	507618
Contract No.	04-0120F4	Items Name	PL1290D	Report No. of NDT	BZ82-ME-27102
Project No.	ZPCG-787				

纠正措施:
Correction action to prevent re occurrence:
培训和教育操作工人, 提高操作水平。
Train and educate operator to improve operation skill.

车间负责人(Foreman): Ma Ruiqun 日期(Date): 12.09.03

参照的WPS编号 Repair WPS No.	<input type="checkbox"/> WPS-345-SMAW-1G(1F)- Repair <input type="checkbox"/> WPS-345-SMAW-2G(2F)-Repair <input type="checkbox"/> WPS-345-SMAW-3G(3F)- Repair <input type="checkbox"/> WPS-345-SMAW-4G(4F)- Repair <input type="checkbox"/> WPS-345-SMAW-1G(1F)-FCM-Repair <input type="checkbox"/> WPS-345-SMAW-2G(2F)-FCM-Repair <input type="checkbox"/> WPS-345-SMAW-3G(3F)-FCM-Repair <input checked="" type="checkbox"/> WPS-345-SMAW-4G(4F)-FCM-Repair <input type="checkbox"/> Others	工艺员 technologist	Xu Donghui 12.09.03

返修(碳刨)前预热温度 Preheat temperature before gouging	N/A	返修的缺陷 Description of discontinuity	
焊前处理检查 Inspection before welding	OK	焊前预热温度 Preheat temperature before welding	270°C
最大碳刨深度 Max. depth of gouging	N/A	碳刨总长 Total length of gouging	N/A

焊工 welder	802925	焊接类型 welding type	SMAW	焊接位置 position	4G
焊接电流 Current	16	焊接电压 Voltage	253	焊接速度 Speed	10

返修后检查
Inspection After repairing:

外观检查 VT result	<u>OK</u>	检验员 Inspector	<u>Lin Yan</u>	日期 Date	2010.09.01
NDT复检 NDT result	<u>OK</u>	NDT人员 NDT person	<u>Ma Jian Lin</u>	日期 Date	2010.09.04

见证/Review:

备注:
Remark:

#R787-QCP-1200

This document is APPROVED
State of California
DEPARTMENT OF TRANSPORTATION
Pursuant to Section 5-1.02 of the
Standard Specifications
Date: 12/15/10



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-27162

DATE 日期 2010.09.03

PAGE OF 页码 1/1

Revision No. 0

PROJECT NO.

ZP06-787

CONTRACTOR

CALTRANS

DRAWING NO.

PL1290D

CALTRANS CONTRACT NO.

图号:

9DW19EW

加州工程编号

04-0120F4

REFERENCING CODE

参考规范编号
AWS D1.5-2002

ACCEPTANCE STANDARD

接受标准
AWS D1.5-2002

PROCEDURE NO.

程序编号
ZPQC-MT-01

CALIBRATION DUE DATE

仪器校正有效期
Dec. 28th, 2010

EQUIPMENT 设备

MT YOKE

MANUFACTURER 制造商
KOREA

MODEL NO. 样式编号

MP-A2L

SERIAL NO. 连续编号

MP-1694

MAGNETIZING METHOD

磁化方法

Continuous magnetic yoke
磁轭式连续法

CURRENT

电流

AC

PARTICLE TYPE

磁粉类型

Dry magnet powder
干磁粉

YOKE SPACING

磁轭间距

70-150mm

MATERIAL TO BE EXAMINED

检测材料

WELDING 焊接件

CASTING 铸件

FORGING 锻造

Material & thickness

母材, 厚度

A709M-345T2-X

WELDING PROCESS

焊接方法

NA

TYPE OF JOINT

焊缝类型

16mm

NA

WELD I.D.

焊缝编号

DISCONTINUITY 不连续性

INDICATION
指示

TYPE
类型

LENGTH IN mm
长度

ACCEPT
接受

REJECT
拒收

REMARKS
备注

OBW9C-008

1

CRACK

20mm

REJ.

Y=1000mm

BLANK

EXAMINED BY 主检

Xia Genlin *Xiebin*

LEVEL - II SIGN 签名 / DATE 日期

质量经理 / QCM

Lei Jianhua 03/09/10

签字 SIGN / 日期 DATE

(FORM# ZPQC-MT01)

REVIEWED BY 审核

Wang Wei

LEVEL-II SIGN / DATE 日期

用户 CUSTOMER

签字 SIGN / 日期 DATE

CWR 1884

MT-27162



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 Date: 03-Sep-2010
375 BURMA ROAD Contract No: 04-0120F4
OAKLAND CA 95607 04-SF-80-13.2 / 13.9
Dear: Mr. Charles Kanapicki Job Name: SAS Superstructure
Attention: Mr. Thomas Nilsson Project/Fabrication Manager Document No: 05.03.06-000788
Subject: NCR No. ZPMC-0793

Reference Description: QA found a crack in the bottom panel base metal at Segment 9DW by MT after ZPMC had tested and accepted base metal repair

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: 09

Remarks:

During Quality Assurance (QA) Magnetic Particle Testing (MT) inspections of temporary alignment plate weld removal areas on OBG segment 9DW Bottom Plate (BP), Caltrans QA Inspector discovered the following issue:

- One (1) linear crack was observed during a QA MT verification of BP154A base metal repair. The crack on the base metal is adjacent to transverse splice weld OBW9C-008.
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- Bottom Plate BP154A is classified as Seismic Performance Critical Member (SPCM).
- OBG segment 9DW is located in the Trial Assembly yard.
- The Notice of Witness Inspection Number (NWIT) is 006565 item #3. This MT crack is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. ZPMC's QC personnel performed 100% MT inspection of this temporary attachment base metal repair area.

Handwritten note: 1 W 8 1 2 9 5-CWR-1884

Action Required and/or Action Taken:

Proposed 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-0793

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

NCT

(Continued Page 2 of 2)

File: 05.03.06

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: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCR-000831**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 02-Sep-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0793**Type of problem:**

Welding **Concrete** **Other**
Welding **Curing** **Procedural** **Bridge No:** 34-0006
Joint fit-up **Coating** **Other** **Component:** Segment 9DW Bottom Panel
Procedural **Procedural** **Description:** Missed MT crack by QC

Reference Description: QA found a crack in the bottom panel base metal at Segment 9DW by MT after ZPMC had tested and accepted base metal repair

Description of Non-Conformance:

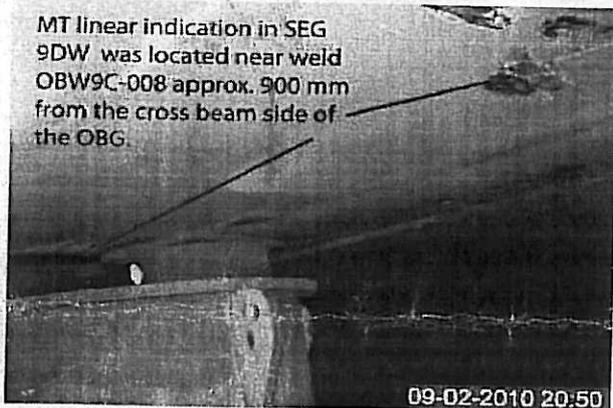
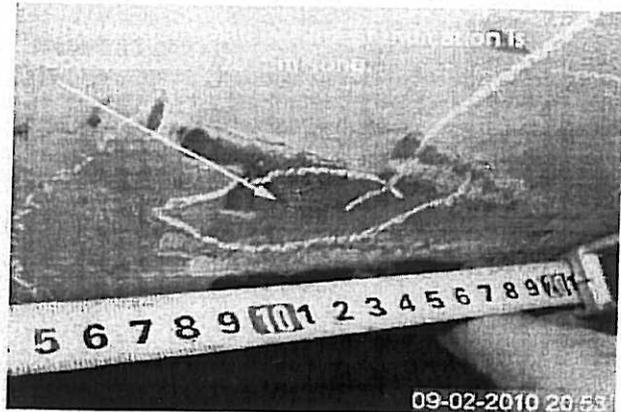
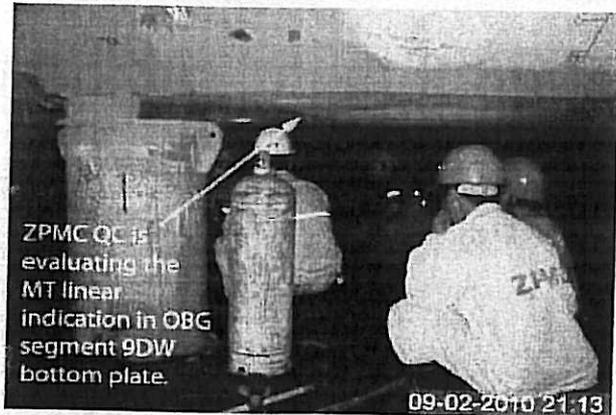
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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

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”.

Special Provisions Section 8.3 – “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.”

Who discovered the problem: Paul Dawson
Name of individual from Contractor notified: Kelvin Cheung
Time and method of notification: 2130 hours, 9-02-10, Verbal
Name of Caltrans Engineer notified: Li Wang
Time and method of notification: 0730 hours, 09-03-10, Verbal
QC Inspector's Name: 0830 hours, 09-03-10, Verbal
Was QC Inspector aware of the problem: Yes No
Contractor's proposal to correct the problem:
N/A

Comments:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

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

NCR PROPOSED RESOLUTION

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

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000788

Subject: NCR No. ZPMC-0793

Dated: 14-Oct-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000795 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: The NDT reports have been revised to show the plate IDs where the base metal repair occurred.

The NDT reports have been revised to show the plate IDs where the base metal repair occurred. Based on these revised reports and previously submitted documentation ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000795R01;

Caltrans' comments:

Status: CLO

Date: 15-Oct-2010

The proposed resolution is acceptable. This NCR is considered closed.

Submitted by: Woo, Laraine

Attachment(s):

Date: 15-Oct-2010



No. B-907

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-10-14

REGARDING: NCR-000831 (ZPMC-0793)

ZPMC is providing the revised NDT record as attached. Please take a review and consider closure of this NCR.

ATTACHMENT:

NCR-000831(ZPMC-0793)

B787-MT-27162

B787-MT-27162 R1

JM W
10/14/2010



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: 03-Sep-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: 05.03.06-000788

Subject: NCR No. ZPMC-0793

Reference Description: QA found a crack in the bottom panel base metal at Segment 9DW by MT after ZPMC had tested and accepted base metal re

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:** 09

Remarks:

During Quality Assurance (QA) Magnetic Particle Testing (MT) inspections of temporary alignment plate weld removal areas on OBG segment 9DW Bottom Plate (BP), Caltrans QA Inspector discovered the following issue:

-One (1) linear crack was observed during a QA MT verification of BP154A base metal repair. The crack on the base metal is adjacent to transverse splice weld OBW9C-008.

-The "Y" location was approximately 900mm from the Cross Beam side near weld OBW9C-008.

-The "X" location was approximately 100mm from weld OBW9C-008.

-Length of the linear crack is approximately 20mm in length.

-The crack on the base metal was at the temporary attachment removal area.

-Weld OBW9C-008 is a transverse splice CJP weld that joins OBG segments 9DW and 9EW Bottom plates.

-Bottom Plate BP154A is classified as Seismic Performance Critical Member (SPCM).

-OBG segment 9DW is located in the Trial Assembly yard.

-The Notice of Witness Inspection Number (NWIT) is 006565 item #3. This MT crack is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. ZPMC's QC personnel performed 100% MT inspection of this temporary attachment base metal repair area.

Action Required and/or Action Taken:

Proposed 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-0793

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

NCT

(Continued Page 2 of 2)

File: 05.03.06

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

Report No: NCR-000831

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 02-Sep-2010

Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

NCR #: ZPMC-0793

Type of problem:

Welding **Concrete** **Other**

Welding **Curing** **Procedural** **Bridge No:** 34-0006

Joint fit-up **Coating** **Other** **Component:** Segment 9DW Bottom Panel

Procedural **Procedural** **Description:** Missed MT crack by QC

Reference Description: QA found a crack in the bottom panel base metal at Segment 9DW by MT after ZPMC had tested and accepted base metal repair

Description of Non-Conformance:

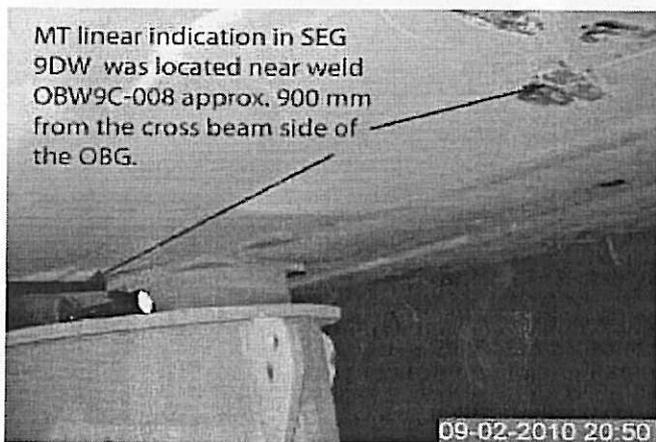
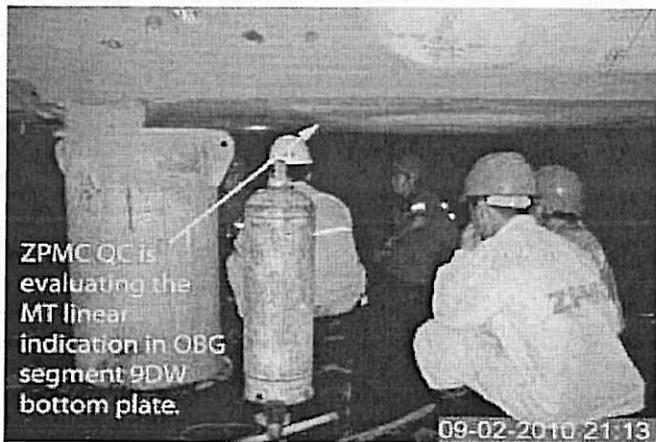
During Quality Assurance (QA) Magnetic Particle Testing (MT) inspections of temporary alignment plate weld removal areas on OBG segment 9DW Bottom Plate (BP), this QA Inspector discovered the following issue:

- One (1) linear crack was observed during a QA MT verification of BP154A base metal repair. The crack on the base metal is adjacent to transverse splice weld OBW9C-008.
- The "Y" location was approximately 900mm from the Cross Beam side near weld OBW9C-008.
- The "X" location was approximately 100mm from weld OBW9C-008.
- Length of the linear crack is approximately 20mm in length.
- The crack on the base metal was at the temporary attachment removal area.
- Weld OBW9C-008 is a transverse splice CJP weld that joins OBG segments 9DW and 9EW Bottom plates.
- Bottom Plate BP154A is classified as Seismic Performance Critical Member (SPCM).
- OBG segment 9DW is located in the Trial Assembly yard.

-The Notice of Witness Inspection Number (NWIT) is 006565 item #3. This MT crack is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. ZPMC's QC personnel performed 100% MT inspection of this temporary attachment base metal repair area.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

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”.

Special Provisions Section 8.3 – “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.”

Who discovered the problem: Paul Dawson

Name of individual from Contractor notified: Kelvin Cheung

Time and method of notification: 2130 hours, 9-02-10, Verbal

Name of Caltrans Engineer notified: Li Wang

Time and method of notification: 0730 hours, 09-03-10, Verbal

QC Inspector's Name: 0830 hours, 09-03-10, Verbal

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

Comments:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

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

DIVISION OF ENGINEERING SERVICES

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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, P.R. China**Report No:** NCS-000822**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 14-Oct-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0793**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: 02-Sep-2010**Description of Non-Conformance:**

During Quality Assurance (QA) Magnetic Particle Testing (MT) inspections of temporary alignment plate weld removal areas on OBG segment 9DW Bottom Plate (BP), this QA Inspector discovered the following issue:

- One (1) linear crack was observed during a QA MT verification of BP154A base metal repair. The crack on the base metal is adjacent to transverse splice weld OBW9C-008.
- The "Y" location was approximately 900mm from the Cross Beam side near weld OBW9C-008.
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- Bottom Plate BP154A is classified as Seismic Performance Critical Member (SPCM).
- OBG segment 9DW is located in the Trial Assembly yard.

-The Notice of Witness Inspection Number (NWIT) is 006565 item #3. This MT crack is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. ZPMC's QC personnel performed 100% MT inspection of this temporary attachment base metal repair area.

Contractor's proposal to correct the problem:

Contractor will revise the NDT reports to prove the plate IDs where the base metal repair occur.

Corrective action taken:

Contractor revised the NDT reports to prove the plate IDs where the base metal repair occurred.

Did corrective action require Engineer's approval? Yes No**If so, name of Engineer providing approval:****Date:****Is Engineer's approval attached?**

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(*Continued Page 2 of 2*)

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
