

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-000391

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 21-Aug-2009

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

NCR #: ZPMC-0365

Type of problem:

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: OBG Floorbeam in Segment 10CE
Procedural	Procedural	Description: Floorbeam FL3 Location (FB020-005)	

Reference Description: Repair work deviated from the Mis-drilled repair hole procedure and CWR

Description of Non-Conformance:

During random verification Magnetic Particle Testing (MT) of the mis-drilled hole repair area on OBG Floor Beam FB020-005 (FL3) on 10CE, Caltrans Quality Assurance (QA) Inspector discovered one (1) linear indication after ZPMC performed MT inspection. Furthermore, QA inspector received notification for inspection after the repair area has been drilled; therefore, proper Ultrasonic Testing (UT) cannot be performed by the QA inspector. This is a deviation from the procedures stated in the Critical Weld Repair B-CWR636 because: 1) VT, UT, and MT need to be performed after the repair; 2) Using plug weld for the mis-drilled hole repair instead of the described WPS; 3) There is an MT indication next to the newly drilled hole.



Applicable reference:

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.”

AWS D1.5 (02) Section 6.26.2 – “Welds that are subject to MT in addition to visual inspection shall have no

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

cracks”

Who discovered the problem: Tim McClendon

Name of individual from Contractor notified: Li Man Kit

Time and method of notification: 1100 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao

Time and method of notification: 1800 hours, Email

QC Inspector's Name: Tao Lei

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
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Reviewed By:	Wahbeh, Mazen	SMR
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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: 01-Sep-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: 05.03.06-000354

Subject: NCR No. ZPMC-0365

Reference Description: Repair work deviated from the Mis-drilled repair hole procedure and CWR

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:** 10

Remarks:

During random verification Magnetic Particle Testing (MT) of the mis-drilled hole repair area on OBG Floor Beam FB020-005 (FL3) on 10CE, Caltrans Quality Assurance (QA) Inspector discovered one (1) linear indication after ZPMC performed MT inspection. Furthermore, QA inspector received notification for inspection after the repair area has been drilled; therefore, proper Ultrasonic Testing (UT) cannot be performed by the QA inspector. This is a deviation from the procedures stated in the Critical Weld Repair B-CWR636 because: 1) VT, UT, and MT need to be performed after the repair; 2) Using plug weld for the mis-drilled hole repair instead of the described WPS; 3) There is an MT indication next to the newly drilled hole.

Action Required and/or Action Taken:

Submit weld repair for the engineer's approval.
Note: Missed indications by ZPMC QC are a continuing problem.

Transmitted by: Bill Howe

Attachments: ZPMC-0365

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

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000354

Subject: NCR No. ZPMC-0365

Dated: 21-Sep-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000361 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: ABF has informed ZPMC QA supervisors to instruct the CWI's to strictly follow repair procedures and have the repair procedure documentation on hand and at the work site at all times

ZPMC production personnel did not follow the proper repair procedures and the ZPMC QC did not realize the repair procedure was not followed. ABF has informed ZPMC QA supervisors to instruct the CWI's to strictly follow repair procedures and have the repair procedure documentation on hand and at the work site at all times. As for the specific welds related to this NCR, ZPMC will perform the necessary repairs and submit the repair and inspection documents at a later date for closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000361R00

Caltrans' comments:

Status: AAP

Date: 22-Sep-2009

Will review and confirm the acceptance when the repair documentation is submitted.

Submitted by: Chao, Ching

Date: 22-Sep-2009

Attachment(s):

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000354

Subject: NCR No. ZPMC-0365

Dated: 11-Jan-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000361 **Rev:** 01

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has attached the MT report, however, no weld repair was required so, there will not be an additional CWR as indicated in the Action Required segment of the NCT.

ZPMC has attached the MT report, however, no weld repair was required so, there will not be an additional CWR as indicated in the Action Required segment of the NCT. ZPMC requests this NCR be closed.

Submitted by: Lawton, Steve

Attachment(s): ABF-NPR-000361R01;

Caltrans' comments:

Status: CLO

Date: 11-Jan-2010

The documentation received is sufficient to close this NCR.

Submitted by: Howe, Bill

Date: 11-Jan-2010

Attachment(s):



No. B-569

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-1-9

REGARDING: NCR-000391(ZPMC-0365)

With this letter of response, ZPMC requests closure of CT NCR-000391(ZPMC-0365), what mentioned that CT Inspector observed missed MT indication.

- ZPMC has issued internal NCR.
- The MT indication was removed by slight grinding.
- After grinding, MT was performed and accepted.
- UT for base metal is not required to be verified by CT.

Based on the taken actions and documentations, ZPMC requests closure of this NCR.

ATTACHMENT:

NCR-B-250(ZPMC-0365)

NCR-000391(ZPMC-0365)

B787-MT-17765

Long

1/9/10



Nonconformance Report

不符合项报告

Project Name: S.F.O.B.B 项目名称: 美国加州海湾大桥	NCR Number: NCR-B-250 NCR 编号: (ZPMC-0365)
Item: Missed MT Indication 名称描述: MT 漏检	Item Number: N/A 件号: N/A
Location: BAY 14 位置: 14 车间	Drawing: FB202-005 图号: FB202-005
Date: 2009-09-10 日期: 2009-09-10	

Description of Nonconformance:
不符合项状态描述:

During random verification MT of the mis-drilled hole repair area on FB020-005 on 10CE, CT Inspector discovered 1 linear indication after ZPMC performed MT inspection. Furthermore, CT Inspector received notification for inspection after repair area has been drilled; therefore, proper UT cannot be performed by CT. This is a deviation from the procedures stated in B-CWR636 because: 1, VT,UT,MT need to be performed after repair; 2, Using plug weld for the mis-drilled hole repair instead of the described WPS; 3, There is an MT indication next to the newly drilled hole.

在对 10CE 箱体 FB020-005 钻错孔位置进行 MT 复检过程中, 加州检验员在 ZPMC 人员 MT 合格后发现 1 处线状缺陷。而且, CT 在钻错孔的位置修补好并重新钻孔后才收到探伤预约, 因此 CT 无法进行 UT 复测。这违背了 B-CWR636 中规定的程序。因为: 1, 返修后需要进行 VT,UT 和 MT; 2, 根据相关 WPS 对钻错的孔进行塞焊; 3, 在重新钻的空附近发现一处 MT 缺陷;

参考标准: 标书章节 8.3; AWS D1.5 章节 6.26.2

Work By: <u>[Signature]</u> 施工方: <u>[Signature]</u>	Prepared by: <u>[Signature]</u> 准备: <u>[Signature]</u>	Reviewed by QCE: <u>[Signature]</u> 质量工程师批准: <u>[Signature]</u>
<input type="checkbox"/> Drawing Error 图纸错误	<input type="checkbox"/> Material Defect 材料缺陷	<input checked="" type="checkbox"/> Fabrication Error 制作错误
<input type="checkbox"/> Other 其他原因		

Disposition: Use as is Repair Reject
处理措施: 回用 返修 拒收

Recommendation:
建议: 打磨去除, remove by grinding.

Prepared by: [Signature] 10.01.09 Approved by QCA: _____
准备 质量经理批准

Reason for Nonconformance:
不符合原因: 线状磁痕没有去除干净. Didn't remove linear defect completely.

预防措施: Enhance dispersion surface and inspection.
加强表面处理, 加强检测

Approved by/批准: [Signature] 10.01.09

Technical Justification for Use-As-Is/Repair: Attachment Non-attachment
回用或返修的技术依据: 附件 无附件

Reviewed /批准: _____

Verification: Acceptable Unacceptable
确认: 可接受 不可接受

Verified by QCI/质检确认: _____ Reviewed by QCA/质检主任审核: _____

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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing-Island, Shanghai, P.R. China

Report No: NCR-000391

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 21-Aug-2009

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

NCR #: ZPMC-0364

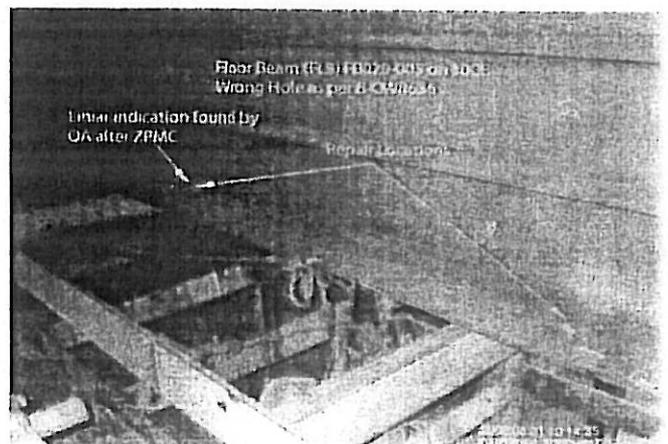
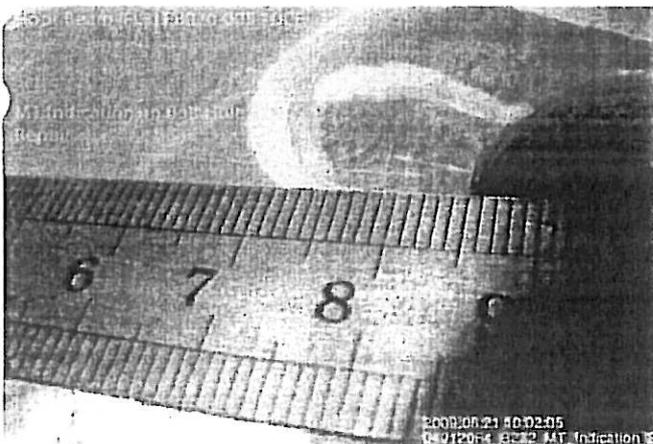
Type of problem:

Welding Concrete Other
 Welding Curing Procedural **Bridge No:** 34-0006
 Joint fit-up Coating Other **Component:** OBG Floorbeam in Segment 10CE
 Procedural **Description:** Floorbeam FL3 Location (FB020-005)

Reference Description: Repair work deviated from the Mis-drilled repair hole procedure and CWR

Description of Non-Conformance:

During random verification Magnetic Particle Testing (MT) of the mis-drilled hole repair area on OBG Floor Beam FB020-005 (FL3) on 10CE, Caltrans Quality Assurance (QA) Inspector discovered one (1) linear indication after ZPMC performed MT inspection. Furthermore, QA inspector received notification for inspection after the repair area has been drilled; therefore, proper Ultrasonic Testing (UT) cannot be performed by the QA inspector. This is a deviation from the procedures stated in the Critical Weld Repair B-CWR636 because: 1) VT, UT, and MT need to be performed after the repair; 2) Using plug weld for the mis-drilled hole repair instead of the described WPS; 3) There is an MT indication next to the newly drilled hole.



Applicable reference:

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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

cracks"

Who discovered the problem: Tim McClendon

Name of individual from Contractor notified: Li Man Kit

Time and method of notification: 1100 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao

Time and method of notification: 1800 hours, Email

QC Inspector's Name: Tao Lei

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

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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-000462**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 20-Jan-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0365**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: 21-Aug-2009**Description of Non-Conformance:**

During random verification Magnetic Particle Testing (MT) of the mis-drilled hole repair area on OBG Floor Beam FB020-005 (FL3) on 10CE, Caltrans Quality Assurance (QA) Inspector discovered one (1) linear indication after ZPMC performed MT inspection. Furthermore, QA inspector received notification for inspection after the repair area has been drilled; therefore, proper Ultrasonic Testing (UT) cannot be performed by the QA inspector. This is a deviation from the procedures stated in the Critical Weld Repair B-CWR636 because: 1) VT, UT, and MT need to be performed after the repair; 2) Using plug weld for the mis-drilled hole repair instead of the described WPS; 3) There is an MT indication next to the newly drilled hole.

Contractor's proposal to correct the problem:

Remove indication by grinding.

Corrective action taken:

Indication was removed by grinding. Magnetic Particle Testing was performed to verify the indication was removed completely.

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 Jim Simonis, who represents the Office of Structural Materials for your project.

Inspected By: Simonis, Jim

Quality Assurance Inspector

Reviewed By: Wahbeh, Mazen

QA Reviewer