

**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-000380

**Prime Contractor:** American Bridge/Fluor Enterprises, a JV

**Date:** 06-Aug-2009

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

**NCR #:** ZPMC-0354

### Type of problem:

<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b> OBG Seg 1AW Open Stiffener
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Reference Description:** Welding on wet material and with the absence of QC exceeding 30 minutes

### Description of Non-Conformance:

This Caltrans Quality Assurance (QA) Inspector observed the following on OBG Segment 1AW (SSD37A-268 and 270):

1. ZPMC welding personnel performing SMAW welding on weld joints SSD37A-268 and SSD37A-270 at OBG Segment 1AW near PP10, "I-rib" stiffener to bottom panel while the base material was wet.
2. On August 6, 2009 between the hours of 00:10 and 01:15 during the welding of joints SSD37A-268 and SSD37A-270 at OBG Segment 1AW near PP10, no ZPMC Quality Control (QC) CWI Inspection personnel were present to monitor this welding.



### Applicable reference:

1. AWS D1.5 2002 section 3, paragraph 3.1.3 "Welding shall not be done when the surfaces are wet or exposed to rain. AWS D1.5 2002 section 3, paragraph 3.2.1 "Surfaces to be welded and surfaces adjacent to a weld shall also be free from moisture that would prevent proper welding.
2. Special Provisions 8-3.01, "QC inspections shall be provided to ensure continuous inspection when any welding is being performed. Continuous inspection, as a minimum, shall include (1) having QC Inspectors

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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continually present on the shop floor or project site when any welding operation is being performed, and (2) having a QC Inspector within such close proximity of all welders or operators so that inspections by the QC Inspector of each operation, at each welding location, shall not lapse for a period exceeding 30 minutes.”

**Who discovered the problem:** Shrikant Utekar

**Name of individual from Contractor notified:** David Wu

**Time and method of notification:** 0130 hours, verbal

**Name of Caltrans Engineer notified:** Bill Howe

**Time and method of notification:** 1430 hours, written

**QC Inspector's Name:** N/A

**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.

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<b>Inspected By:</b>	Tsang, Eric	SMR
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<b>Reviewed By:</b>	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:** 16-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:** 05.03.06-000343

**Subject:** NCR No. ZPMC-0354

**Reference Description:** Welding on wet material and with the absence of QC exceeding 30 minutes

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 Caltrans Quality Assurance (QA) Inspector observed the following on OBG Segment 1AW (SSD37A-268 and 270):
1. ZPMC welding personnel performing SMAW welding on weld joints SSD37A-268 and SSD37A-270 at OBG Segment 1AW near PP10, "I-rib" stiffener to bottom panel while the base material was wet.
  2. On August 6, 2009 between the hours of 00:10 and 01:15 during the welding of joints SSD37A-268 and SSD37A-270 at OBG Segment 1AW near PP10, no ZPMC Quality Control (QC) CWI Inspection personnel were present to monitor this welding.

**Action Required and/or Action Taken:**

Submit weld repair for engineers approval. This is an ongoing problem.

**Transmitted by:** Bill Howe

**Attachments:** ZPMC-0354

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, 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:** 05.03.06-000343

**Subject:** NCR No. ZPMC-0354

**Dated:** 24-Aug-2009

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000348 Rev: 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** ABF has notified ZPMC QA supervisors regarding this NCR who in turn have discussed this with the welders in trial assembly. This weld will be inspected a minimum 48 hours after welding by MT.

ABF has notified ZPMC QA supervisors regarding this NCR who in turn have discussed this with the welders in trial assembly. This weld will be inspected a minimum 48 hours after welding by MT. ZPMC will submit the required inspection documentation at a later date to close this NCR.

### Submitted by:

**Attachment(s):** ABF-NPR-000348R00

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### Caltrans' comments:

**Status:** AAP

**Date:** 10-Sep-2009

The response is acceptable, but the Non-Conformance is not closed.

Please discuss with the Department's representatives in Shanghai to determine the repairs and documentation required to close this Non-Conformance.

**Submitted by:** Wright, Doug

**Date:** 10-Sep-2009

**Attachment(s):**

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000343

**Subject:** NCR No. ZPMC-0354

**Dated:** 19-Nov-2009

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000348 Rev: 01

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### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC is submitting NDT documentation showing that the weld is acceptable. ZPMC requests closure of this NCR. ZPMC has conducted training with both the welder and CWI to ensure that they understand their responsibilities. The welder understands the requirement to clean the adjacent material to the weld and the CWI understands that he cannot leave the area for more than 30 minutes when welding is ongoing. ZPMC is submitting NDT documentation showing that the weld is acceptable. ZPMC requests closure of this NCR.

### Submitted by:

**Attachment(s):** ABF-NPR-000348R01

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### Caltrans' comments:

**Status:** REJ

**Date:** 30-Nov-2009

The NPR stated that the NDT documentation was submitted but there was no attachment found. Please submit the NDT documentation or update the QA data base for Engineer's review.

**Submitted by:** Chao, Ching

**Date:** 30-Nov-2009

**Attachment(s):**

## NCR PROPOSED RESOLUTION

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

**Dated:** 03-Dec-2009

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

**Attention:** Pursell, Gary  
Resident Engineer

**Job Name:** SAS Superstructure

**Ref:** 05.03.06-000343

**Document No.:** ABF-NPR-000348 Rev: 02

**Subject:** NCR No. ZPMC-0354

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### Contractor's Proposed Resolution:

**Reference Resolution:** Attached is the documents referenced in the previous response. ZPMC requests closure of this NCR.

Attached is the documents referenced in the previous response. ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000348R02;

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### Caltrans' comments:

**Status:** CLO

**Date:** 09-Dec-2009

The documentation submitted has been reviewed by the Engineer and is considered acceptable.

**Submitted by:** Chao, Ching

**Date:** 09-Dec-2009

**Attachment(s):**



No. B-491

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2009-11-18**

**REGARDING: NCR-000380 (ZPMC-0354)**

With this letter of response, ZPMC requests closure for Caltrans NCR-000380 (ZPMC-0354). We agree what describe in the non-conformance report. And have trained the welder and CWI for this issue, the welder should be have real responsibility to clean the adjacent bevel and base metal surface prior perform the weld, and the CWI should witness the process and confirm the conduction always comply with the procedure and requirement of the specification code at least thirty minutes. By the way we did the final visual and MT inspection to prove the weld has been accepted.

so base on the above explanation, ZPMC applies to close the caltrans's report NCR-000380 (ZPMC-0354).

Please reference attached document for acceptance and closure the NCR-000380 (ZPMC-0354).

**ATTACHMENT:**

**NCR-000380 (ZPMC-0354)**

**ZPMC internal NCR**

**The acceptable VT/MT reports**

*Zhao Shuangbin*

*2009. 11. 18*



# 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 编号: NCR-B-241 (ZPMC-0354)

Item: Welding on wet material and with the absence of QC exceeding 30 minutes  
 Item Number: OBG 1AW

Drawing:  
 图号: OBG 1AW

名称描述: 在湿的母材上焊接, 30分钟内没有 QC 到现场焊接监控

Location: OBG 1AW  
 位置:

Date: 2009-8-21  
 日期:

**Description of Nonconformance:**

**不符合项状态描述:**

This Caltrans Quality Assurance (QA) Inspector observed the following on OBG Segment 1AW (SSD37A-268 and 270):

1. ZPMC welding personnel performing SMAW welding on weld joints SSD37A-268 and SSD37A-270 at OBG Segment 1AW near PP10, "I-rib" stiffener to bottom panel while the base material was wet.
2. On August 6, 2009 between the hours of 00:10 and 01:15 during the welding of joints SSD37A-268 and SSD37A-270 at OBG Segment 1AW near PP10, no ZPMC Quality Control (QC) CWI Inspection personnel were present to monitor this welding.

加州检验员在 1AW 箱体内, 在靠近 PP10 附近, 焊缝 SSD37A-268 和 270 两个筋板开档位置, I-rib 的预留焊缝上烧焊时发现以下问题:

- 1、在此预留焊缝上, ZPMC 在有水的位置烧焊。
- 2、2009 年 8 月 6 日, 凌晨 0: 10 到 1: 15 期间, ZPMC 在此烧焊时, 没有 QC 到现场监控焊接。

Work By:

施工方: Xia Fa Ling  
 8/21/09

Prepared by:

准备:

*Shenhejun*  
 2009.8.21

Reviewed by QCE:

*Lijianhua*  
 8/21/09

- Drawing Error     Material Defect     Fabrication Error     Other  
 图纸错误                      材料缺陷                      制作错误                      其他原因

Disposition:

处理措施:

- Use as is                       Repair                       Reject  
 回用                                      返修                                      拒收

**Recommendation:**

建议:

Prepared by: \_\_\_\_\_

准备

Approved by QCA: \_\_\_\_\_

质量经理批准

Reason for Nonconformance:

不符合原因:

在 IAW 箱体内 静板 预留焊 缝 焊接 时有水 没有 清理  
干净 便 开始 焊接. Before welding IAW box prepare weld, didn't  
remove water completely.

Prevention of Re-occurrence:

预防措施:

加强 现场 监督 和 检查. 并对 工人 进行 培训.  
Enhance supervision and inspection and train workers.

Approved by/批准: Gao Jun 09.09.20

Technical Justification for Use-As-Is/Repair:

Attachment

Non-attachment

回用或返修的技术依据:

加强 现场 焊工 的 管理, 焊接 位置 有水, 应在 去除 水 后 再 进行  
焊接. Enhance supervision to workers, water shall be dried off before  
welding.

Reviewed /批准:

张和 8.24.09

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:



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

**NON-CONFORMANCE REPORT TRANSMITTAL**

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

Date: 16-Aug-2009

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

Dear: Mr. Charles Kanapicki  
 Attention: Mr. Thomas Nilsson Project/Fabrication Manager  
 Subject: NCR No ZPMC-0354

Job Name: SAS Superstructure  
 Document No: 05.03.06-000343

Reference Description: Welding on wet material and with the absence of QC exceeding 30 minutes

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 Caltrans Quality Assurance (QA) Inspector observed the following on OBG Segment 1AW (SSD37A-268 and 270):
1. ZPMC welding personnel performing SMAW welding on weld joints SSD37A-268 and SSD37A-270 at OBG Segment 1AW near PP10, "I-rib" stiffener to bottom panel while the base material was wet.
  2. On August 6, 2009 between the hours of 00:10 and 01:15 during the welding of joints SSD37A-268 and SSD37A-270 at OBG Segment 1AW near PP10, no ZPMC Quality Control (QC) CWI Inspection personnel were present to monitor this welding.

**Action Required and/or Action Taken:**

Submit weld repair for engineers approval. This is an ongoing problem.

Transmitted by: Bill Howe

Attachments: ZPMC-0354

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boul, Contract Files, Ching Chao  
 File: 05.03.06

**DEPARTMENT OF TRANSPORTATION**  
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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-000380

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 06-Aug-2009

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

NCR #: ZPMC-0354

**Type of problem:**

Welding  Concrete  Other

Welding  Curing  Procedural

Joint fit-up  Coating  Other

Procedural  Procedural  Description:

Bridge No: 34-0006

Component: OBG Seg 1AW Open Stiffener

Reference Description: Welding on wet material and with the absence of QC exceeding 30 minutes

**Description of Non-Conformance:**

This Caltrans Quality Assurance (QA) Inspector observed the following on OBG Segment 1AW (SSD37A-268 and 270):

1. ZPMC welding personnel performing SMAW welding on weld joints SSD37A-268 and SSD37A-270 at OBG Segment 1AW near PP10, "I-rib" stiffener to bottom panel while the base material was wet.
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**Applicable reference:**

1. AWS D1.5 2002 section 3, paragraph 3.1.3 "Welding shall not be done when the surfaces are wet or exposed to rain. AWS D1.5 2002 section 3, paragraph 3.2.1 "Surfaces to be welded and surfaces adjacent to a weld shall also be free from moisture that would prevent proper welding.
2. Special Provisions 8-3.01, "QC inspections shall be provided to ensure continuous inspection when any welding is being performed. Continuous inspection, as a minimum, shall include (1) having QC Inspectors

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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( Continued Page 2 of 2 )

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continually present on the shop floor or project site when any welding operation is being performed, and (2) having a QC Inspector within such close proximity of all welders or operators so that inspections by the QC Inspector of each operation, at each welding location, shall not lapse for a period exceeding 30 minutes."

Who discovered the problem: Shrikant Utekar

Name of individual from Contractor notified: David Wu

Time and method of notification: 0130 hours, verbal

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 1430 hours, written

QC Inspector's Name: N/A

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.

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Inspected By: Tsang, Eric

SMR

Reviewed By: Wahbeh, Mazen

SMR

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**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
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(707) 649-5453  
(707) 649-5493

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-000251**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:****Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0354**Type of problem:**

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

**Date the Non-Conformance Report was written:** 06-Aug-2009**Description of Non-Conformance:**

This Caltrans Quality Assurance (QA) Inspector observed the following on OBG Segment 1AW (SSD37A-268 and 270):

1. ZPMC welding personnel performing SMAW welding on weld joints SSD37A-268 and SSD37A-270 at OBG Segment 1AW near PP10, "I-rib" stiffener to bottom panel while the base material was wet.
2. On August 6, 2009 between the hours of 00:10 and 01:15 during the welding of joints SSD37A-268 and SSD37A-270 at OBG Segment 1AW near PP10, no ZPMC Quality Control (QC) CWI Inspection personnel were present to monitor this welding.

**Contractor's proposal to correct the problem:**

Contractor has acknowledged that this item must be addressed, and the item was added to the Master Punchlist.

**Corrective action taken:**

Completion of work being tracked on Master Punchlist. Submittal of documentation by Contractor being tracked on Documentation Punchlist.

**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