

**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, PRC**Report No:** NCR-000073**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 18-Feb-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0071**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> DP-057
<b>Procedural</b>	<b>Procedural</b>	<b>Descriptor:</b>	OBG Deck Panel

**Description of Non-Conformance:**

The Contractor performed welding without sufficient preheat. AWS D1.5 requires a minimum preheat temperature of 10 degrees Celsius; the measured preheat measured by the Contractor's QC was 8 degrees Celsius. This occurred on the GMAW root pass of closed rib weld #2 on OBG deck panel DP-057.

**Applicable reference:**

AWS D1.5, Table 4.4

**Who discovered the problem:** Greg Bertlesman**Name of individual from Contractor notified:** Ady Velasco**Time and method of notification:** Verbal notification at 20:30 on 02-18-2008**Name of Caltrans Engineer notified:** Stanley Ku**Time and method of notification:** Name of Construction Engineer notified: Stanley Ku**QC Inspector's Name:** ABF Representative Mr. Warren Buehler**Was QC Inspector aware of the problem:** Yes No**Contractor's proposal to correct the problem:****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 Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

**Inspected By:** Lowry,Patrick

Quality Assurance Inspector

**Reviewed By:** Lowry,Patrick

QA Reviewer



**DEPARTMENT OF TRANSPORTATION**  
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 Enterprises, a JV  
375 Burma Road  
Oakland CA 94607

**Date:** 20-Feb-2008

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

**Attention:** Dave Williams          Consultant

**Job Name:** SAS Superstructure

**Document No:** 05.03.06-000041

**Subject:** NCR No. ZPMC-0071

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

Non-Conformance with quality control procedures. Please take appropriate corrective action. Recurrence may require further administrative action.

Non-Conformance with quality control. Records indicate that this is a recurring issue and constitutes a systematic problem in quality control. Within fourteen (14) days, please submit a plan to correct the deficiency.

Material or workmanship is not in compliance with contract requirements.

**Enclosed please find the following items:**

**NCR No:** ZPMC-0071

**Remarks:**

Please see attached Non-Conformance Report for details.

**Transmitted by:** Stanley Ku          Sr. Bridge Engineer

**cc:** Rick Morrow, Gary Pursell, Stanley Ku, Brian Boal, Jason Tom, Dave Williams

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000041

**Subject:** NCR No. ZPMC-0071

**Dated:** 24-Apr-2008

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000028 **Rev:** 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC will perform necessary grinding to remove surface rust and ZPMC QC will confirm

Please see the attached response from ZPMC. ABF JV has reviewed and concurs with this response and considers this issue resolved. ABF JV believes, based on our understanding of the NCT process that this NCR was issued closed as the top (first) box on the NCT was checked. Please confirm.

**Submitted by:** Kanapicki, Charles

**Attachment(s):** ABF-NPR-000028R00;

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### Caltrans' comments:

**Status:** CLO

**Date:** 24-Jul-2008

The Contractor's response is acceptable. The Department concurs that Non-Conformance ZPMC-0071 is closed.

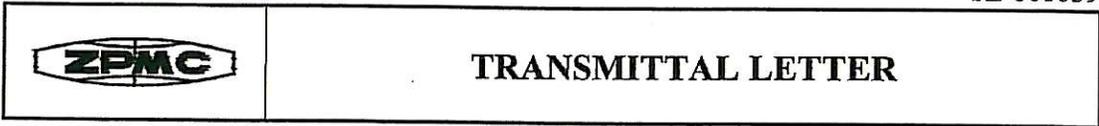
**Submitted by:** Wright, Doug

**Attachment(s):**

**Date:** 24-Jul-2008

NCR #1

TL-001039



PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 04/08/2008

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: RESPONSE TO CT NCR-000072 / ZPMC 71 *CALL 4/22/08*

SUBMITTED FOR YOUR APPROVAL AND SUBMITTAL TO CALTRANS.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE WITH NO.B-087 FOR CLOSURE.
- (2) COPY OF NCR WITH NUMBER CT NCR-000072. / ZPMC 71 *CALL 4/22/08*

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:

*Ruby L*  
 \_\_\_\_\_  
 PLAN HOLDER

*4/8/08 1450*  
 \_\_\_\_\_  
 DATE

*[Faint blue stamp]*  
 \_\_\_\_\_  
 COMPANY

\_\_\_\_\_  
 PHONE NO.

PLAN NUMBER: N/A  
 #R787-QCP-102



No. B-087

## LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2008-4-8

REGARDING: NCR-000072 / ZPMC T1 *CHL 4/22/08*

With this letter of response and the attached NCR, ZPMC requests closure for NCR-000072. ZPMC realize that it's probably rust a little before start welding the U-rib panel. And the smoke in the process of preheating maybe looks like surface rust. therefore we will increase smooth grinding and QC inspection for tack weld until the good condition to requirement.

*/ ZPMC T1 CHL 4/22/08*  
ZPMC considers NCR-000072 can be closed.

Please reference attached documentation for acceptance and closure of NCR-000072. */ ZPMC T1 CHL 4/22/08*

ATTACHMENT:

NCR-000072

*REVIEWED*  
*ABF CEM*  
*10 APRIL 08*



# Nonconformance Report

## 不符合项报告

Project Name: **S.F.O.B.B** NCR Number: **ZPMC TI 07**  
 项目名称: **美国加州海湾大桥** NCR 编号: **NCR-B-017 (NCR-000072) 4/22/08**

Item: **Groove surface is bad condition** Item Number: Drawing Number:  
 名称描述: **焊前的母材表面处理不好** 件号: 图号: **DP-058**

Location: **OBG Deck Plate** Date:  
 位置: **钢箱梁顶板单元** 日期: **2008-2-15**

Description of Nonconformance:  
 不符合项状态描述:  
 Surfaces welded do not conform to workmanship requirements for preparation of base metal. groove faces of closed ribs welded to deck plate were not smooth or uniform and were not free from rust. this occurred in OBG Deck panel DP-058.  
 DP-058 板单元 U 肋焊前的表面处理没达到要求, U 肋的坡口表面没有打磨光滑有锈蚀存在。

Work By: zhao yanjun Prepared by: Fu huihong Reviewed by QCE: Zhao Shuangbao  
 施工方: 准备: 2008.03.05 质量工程师批准: 08.3.5  
 Drawing Error  Material Defect  Fabrication Error  Other  
 图纸错误 材料缺陷 制作错误 其他原因

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

Recommendation: Control the quality strictly and enhance the supervision and management.  
 建议: 严格控制质量要求, 加强监督与管理.

Prepared by: Lu Guang Bin Approved by QCA: Hu Gang  
 准备 质量经理批准

Reason for Nonconformance:  
 不符合原因: Due to the smoke in the process of preheating, surfaces welded didn't conform to the requirements.  
因焊前烘枪预热, 产生的烟雾及锈迹清理没达到要求.

Prevention of Re-occurrence:  
 预防措施: Grind the surface and grind the welds smoothly to conform to workmanship requirements of base metal.  
烧焊前表面处理干净. 焊缝打磨光滑.

Approved by/批准: Lu Guang Bin

Technical Justification for Use-As-Is/Repair:  Attachment  Non-attachment  
 回用或返修的技术依据: 根据合同要求对此焊缝附件 无附件  
进行NDT检验, 若焊缝质量满足要求, 回用. 若存在缺陷, 需进行返修, 并向监理单位报告进行返修, 合格后才能进行下一道工序. Perform NDT for this area according to the contract.  
If there are defects existing issue relevant repair report and re-weld, or else, use as is. Strengthen the control of fabrication process in ofertime.  
 Reviewed/批准: Lu Guang Bin 08.3.04

Verification:  Acceptable  Unacceptable  
 确认: 可接受 不可接受

Verified by QCI/质检确认: chen xi 0707201 Reviewed by QCA/质检主任审核: Hu Gang



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Tel: 021-56856666 ext 207061 Fax:

## NON-CONFORMANCE REPORT TRANSMITTAL

To: American Bridge/Floor Enterprises, a JV  
375 Burma Road  
Oakland CA 94607

Date: 20-Feb-2008

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

Attention: Dave Williams Consultant

Job Name: SAS Superstructure

Document No: 05.03.06-000041

Subject: NCR No. ZPMC-0071

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

- Non-Conformance with quality control procedures. Please take appropriate corrective action. Recurrence may require further administrative action.
- Non-Conformance with quality control. Records indicate that this is a recurring issue and constitutes a systematic problem in quality control. Within fourteen (14) days, please submit a plan to correct the deficiency.
- Material or workmanship is not in compliance with contract requirements.

Enclosed please find the following items:

NCR No: ZPMC-0071

Remarks:

Please see attached Non-Conformance Report for details.

Transmitted by: Stanley Ku Sr. Bridge Engineer

cc: Rick Morrow, Gary Pursell, Stanley Ku, Brian Boal, Jason Tom, Dave Williams

File: 05.03.06

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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, PRC

Report No: NCR-000072

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 15-Feb-2008

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

NCR #: ZPMC-00

### Type of problem:

Welding  Concrete  Other   
Welding  Curing  Procedural  Bridge No: 34-0006  
Joint fit-up  Coating  Other  Component: U-133, U-63, U-13, U-62, U-64  
Procedural  Procedural  Descripton: OBG Closed Rib Stiffeners

### Description of Non-Conformance:

Surfaces welded do not conform to workmanship requirements for preparation of base metal. Groove faces of closed ribs welded to deck plate were not smooth or uniform and were not free from rust. This occurred in OBG Deck Panel DP-058.

### Applicable reference:

AWS D1.5, Section 3.2.1: "Surfaces and edges to be welded shall be smooth, uniform, and free from fins, tears, cracks, and other discontinuities which would adversely affect the quality or strength of the weld. Surfaces to be welded and surfaces adjacent to a weld shall also be free from loose or thick scale, slag, rust, moisture, grease, and other foreign material that would prevent proper welding or produce objectionable fumes."

Who discovered the problem: Alfredo Acuna

Name of individual from Contractor notified: Ady Velasco

Time and method of notification: Verbal notification at 12:00 on 02-15-2008

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: Discussed in previous conversation on 02-11-2008

QC Inspector's Name: ABF Representative Warren Buehler

Was QC Inspector aware of the problem:  Yes  No

Contractor's proposal to correct the problem:

### Comments:

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Inspected By: Lowry, Patrick

Quality Assurance Inspector

Reviewed By: Lowry, Patrick

QA Reviewer

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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, PRC**Report No:** NCS-000016**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 20-Feb-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0071**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:** 18-Feb-2008**Description of Non-Conformance:**

The Contractor performed welding without sufficient preheat. AWS D1.5 requires a minimum preheat temperature of 10 degrees Celsius; the measured preheat measured by the Contractor's QC was 8 degrees Celsius. This occurred on the GMAW root pass of closed rib weld #2 on OBG deck panel DP-057.

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

METS-OSM will track this issue as a Quality Management Issue and does not request a response from the Contractor at this time. If this issue becomes systemic, METS will elevate this issue to second-tier and request a response from the Contractor.

**Corrective action taken:**

N/A

**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 Patrick Lowry, (858) 344-2712, who represents the Office of Structural Materials for your project.

**Inspected By:** Liu, Chengwen

Quality Assurance Inspector

**Reviewed By:** Lowry, Patrick

QA Reviewer