

**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-000552**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 19-Dec-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0525**Type of problem:****Welding****Concrete****Other****Welding****Curing****Procedural****Bridge No:** 34-0006**Joint fit-up****Coating****Other****Component:** Segment 8CE Bottom Panels**Procedural****Procedural****Description:**

**Reference Description:** ZPMC performed base metal repairs on Segment 8CE Side panels without the prior approval of the Engineer

**Description of Non-Conformance:**

During a random visual inspection at OBG Segment 8CE of Seismic Performance Critical Members (SPCM) Bottom Panels (BP), the Quality Assurance (QA) Inspector observed ZPMC performing unapproved base metal repairs on SPCM BP's at temporary attachment removal areas. Approximately fifty (50) areas have been excavated and ten (10) areas have been welded prior to the QA inspector's arrival. Additional information about the non-conforming base metal repairs are listed below.

- 1) The BP's are identified as: BP177A, BP069A and BP123A
- 2) The material was identified as: A709 Grade 345 SPCM
- 3) The locations of these non-conformance were located between PP67 to PP71.
- 4) ZPMC performed base metal repairs without the prior approval of the Engineer.

**Applicable reference:**

Special Provisions Section 8-3.01: "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

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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discovered and also of the proposed repair procedures to correct them. For requests to perform repairs, the contractor shall include an engineering evaluation of the proposed repair.”

ZPMC Welding Quality Control Plan, Section 9.2.1.2: “Prior approval of the Engineer shall be obtained for repairs to base metal other than what was identified in Section 9.2.1.1 of this manual and the repair of all other cracks.”

AWS D1.5/2002, Section 3.7.4: “Prior approval of the Engineer shall be obtained for repairs to base metal, repair of major or delayed cracks, repairs to ESW and EGW welds with internal defects, or for revised design to compensate for deficiencies.”

**Who discovered the problem:** Larry Viars

**Name of individual from Contractor notified:** Li Man Kit

**Time and method of notification:** 12/19/2009, 1330 hours, Verbal

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

**Time and method of notification:** 12/20/2009, 1430 hours, Verbal

**QC Inspector's Name:** Wang Wei

**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>	Carreon,Albert	Lead Reviewer/Task Leader
<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:** 25-Dec-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:** 05.03.06-000513

**Subject:** NCR No. ZPMC-0525

**Reference Description:** ZPMC performed base metal repairs on Segment 8CE Side panels without the prior approval of the Engineer

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:** 08

**Remarks:**

During a random visual inspection at OBG Segment 8CE of Seismic Performance Critical Members (SPCM) Bottom Panels (BP), the Quality Assurance (QA) Inspector observed ZPMC performing unapproved base metal repairs on SPCM BP's at temporary attachment removal areas. Approximately fifty (50) areas have been excavated and ten (10) areas have been welded prior to the QA inspector's arrival.

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

For all subsequent base metal repairs, notify the engineer prior to the start of work. Submit weld test information to the engineer for this repair. A response for the resolution of this issue is expected within 7 days.

**Transmitted by:** Bill Howe

**Attachments:** ZPMC-0525

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, 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:** 05.03.06-000513

**Subject:** NCR No. ZPMC-0525

**Dated:** 10-Feb-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000589 Rev: 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC is providing NDT documentation of the base metal after repairs to show that it is acceptable. In the future prior notification will be given to Caltrans to prevent this from occurring again.

ZPMC is providing NDT documentation of the base metal after repairs to show that it is acceptable. In the future prior notification will be given to Caltrans to prevent this from occurring again. ZPMC requests that this NCR be closed.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000589R00;

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### Caltrans' comments:

**Status:** CLO

**Date:** 11-Feb-2010

The documentation received is sufficient to close this NCR.

**Submitted by:** Howe, Bill

**Date:** 11-Feb-2010

**Attachment(s):**



No. B-606

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-2-10**

**REGARDING: NCR-00552 (ZPMC-0525)**

With this letter of response, ZPMC requests closure of CT NCR-00552 (ZPMC-0525), what mentioned that CT Inspector observed unapproved base metal repairs on 8CW Bottom Panel.

- These base metal repairs were being performed in way of temporary attachment removal areas. The Bottom Panels were confirmed to be NON-SPCM refer to drawing. A misunderstanding for the requirement of repair procedure for NON-SPCM base metal repair occurred by ZPMC.
- ZPMC acknowledged this problem and has issued internal NCR. Meeting, regarding to base metal repair procedure was taken by ZPMC, ABF together with CT to clear this procedure. For such case, WRR will be issued prior to welding in future.
- ZPMC QA department has issued Inter Work Report to emphasize this requirement of base metal repair.
- To warrant the quality, VT & MT were performed for these repair area.

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

**ATTACHMENT:**

NCR-00552 (ZPMC-0525)

NCR-B-338(ZPMC-0525)

B787-MT-18756

B-VT-52087

*[Handwritten signature]*  
2/10/10



# 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 编号: NCR-B-338(ZPMC-0525)

Item: BM repairs without approval of Engineer  
 名称描述: 母材返修未得到工程师批准  
 Item Number: N/A  
 件号: N/A  
 Drawing: N/A  
 图号: N/A

Location: outside yard  
 位置: 外场  
 Date: 2009-12-30  
 日期: 2009-12-30

### Description of Nonconformance:

#### 不符合项状态描述:

During a random visual inspection at OBG Segment 8CE of Seismic Performance Critical Members(SPCM) Bottom Panels(BP), the QA Inspector observed ZPMC performing unapproved base metal repairs on SPCM BP'S at temporary attachment removal areas. Approximately fifty(50) areas have been excavated and ten(10) areas have been welded prior to the QA inspector's arrival. Additional information about the non-conforming base metal repairs are listed below.

- 1) The BP's are identified as:BP177A, BP069A and BP123A
- 2) The material was identified as: A709 Grade 345 SPCM
- 3) The locations of these non-conformance were located between PP67 to PP71.
- 4) ZPMC performed base metal repairs without the prior approval of the Engineer.

加州检验员在检验时发现箱梁 8CE 的底板 (SPCM 构件), ZPMC 未得到工程允许就对临时构件移除后的位置进行母材返修。在检验员到来之前已经有 50 个位置进行刨槽, 其中 10 处已经进行返修。详细信息如下:

- 1) 涉及的底板为: BP177A, BP069A 和 BP123A
- 2) 构件材质为: A709 Grade 345 SPCM
- 3) 这些位置位于 PP67 和 PP71 之间
- 4) ZPMC 未得到工程师允许就进行了返修

Work By: 施工方: *施建刚*  
 Prepared by: 准备:  
 Reviewed by QCE: 质量工程师批准: *thoushang*  
 Drawing Error 图纸错误  
 Material Defect 材料缺陷  
 Fabrication Error 制作错误  
 Other 其他原因 *09.12.30*

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

### Recommendation:

建议:

Prepared by: \_\_\_\_\_ Approved by QCA: \_\_\_\_\_  
 准备 质量经理批准

Reason for Nonconformance:

不符合原因:

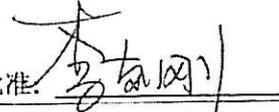
8CE底板, 临时物件未得到工程师允许就对  
 临时物件拆除后位置进行材料回修  
 After removing 8C7 bottom plate temporary attachment, repair  
 base metal without engineer approved.

Prevention of Re-occurrence:

预防措施:

1. 加强现场管控.
  2. 加强施工人员培训.
1. Enhance supervision on-site.  
 2. Train workers.

Approved by/批准:



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:

Li Yanhua 10.01.09

Reviewed by QCA/质检主任审核:

#R787-QCP-1300

07120901



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: 25-Dec-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-0525

Job Name: SAS Superstructure  
Document No: 05.03.06-000513

Reference Description: ZPMC performed base metal repairs on Segment SCE Side panels without the prior approval of the Engineer

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: 08

### Remarks:

During a random visual inspection at OBG Segment SCE of Seismic Performance Critical Members (SPCM) Bottom Panels (BP), the Quality Assurance (QA) Inspector observed ZPMC performing unapproved base metal repairs on SPCM BP's at temporary attachment removal areas. Approximately fifty (50) areas have been excavated and ten (10) areas have been welded prior to the QA inspector's arrival.

### Action Required and/or Action Taken:

For all subsequent base metal repairs, notify the engineer prior to the start of work. Submit weld test information to the engineer for this repair. A response for the resolution of this issue is expected within 7 days.

Transmitted by: Bill Howe

Attachments: ZPMC-0525

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

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 S: 150  
 Vallejo, CA 94592-1133  
 (707) 649-5453  
 (707) 645-5493

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-000552  
 Prime Contractor: American Bridge/Fluor Enterprises, a JV Date: 19-Dec-2009  
 Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island NCR #: ZPMC-0525

**Type of problem:**

- Welding  Concrete  Other   
 Welding  Curing  Procedural  Bridge No: 34-0006  
 Joint fit-up  Coating  Other  Component: Segment 8CE Bottom Panels  
 Procedural  Procedural  Description:

Reference Description: ZPMC performed base metal repairs on Segment 8CE Side panels without the prior approval of the Engineer

**Description of Non-Conformance:**

During a random visual inspection at OBG Segment 8CE of Seismic Performance Critical Members (SPCM) Bottom Panels (BP), the Quality Assurance (QA) Inspector observed ZPMC performing unapproved base metal repairs on SPCM BP's at temporary attachment removal areas. Approximately fifty (50) areas have been excavated and ten (10) areas have been welded prior to the QA inspector's arrival. Additional information about the non-conforming base metal repairs are listed below.

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- 3) The locations of these non-conformance were located between PP67 to PP71.
- 4) ZPMC performed base metal repairs without the prior approval of the Engineer.



**Applicable reference:**

Special Provisions Section 8-3.01: "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

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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discovered and also of the proposed repair procedures to correct them. For requests to perform repairs, the contractor shall include an engineering evaluation of the proposed repair."

ZPMC Welding Quality Control Plan, Section 9.2.1.2: "Prior approval of the Engineer shall be obtained for repairs to base metal other than what was identified in Section 9.2.1.1 of this manual and the repair of all other cracks."

AWS D1.5/2002, Section 3.7.4: "Prior approval of the Engineer shall be obtained for repairs to base metal, repair of major or delayed cracks, repairs to ESW and EGW welds with internal defects, or for revised design to compensate for deficiencies."

**Who discovered the problem:** Larry Viars

**Name of individual from Contractor notified:** Li Man Kit

**Time and method of notification:** 12/19/2009, 1330 hours, Verbal

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

**Time and method of notification:** 12/20/2009, 1430 hours, Verbal

**QC Inspector's Name:** Wang Wei

**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:** Carreon, Albert

**Lead Reviewer/Task Leader**

**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  
Vallejo, CA 94592-1133  
(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-000516**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 11-Feb-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0525**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>Description:</b>	

**Date the Non-Conformance Report was written:** 19-Dec-2009**Description of Non-Conformance:**

During a random visual inspection at OBG Segment 8CE of Seismic Performance Critical Members (SPCM) Bottom Panels (BP), the Quality Assurance (QA) Inspector observed ZPMC performing unapproved base metal repairs on SPCM BP's at temporary attachment removal areas. Approximately fifty (50) areas have been excavated and ten (10) areas have been welded prior to the QA inspector's arrival. Additional information about the non-conforming base metal repairs are listed below.

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- 2) The material was identified as: A709 Grade 345 SPCM
- 3) The locations of these non-conformance were located between PP67 to PP71.
- 4) ZPMC performed base metal repairs without the prior approval of the Engineer.

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

Perform required NDT to verify the welds are in conformance with Contract requirements.

**Corrective action taken:**

Contractor submitted appropriate NDT reports to verify the repairs are in conformance with Contract specifications. Per discussions in China, the Contractor will submit a CWR for Engineer's approval for all base metal repairs resulting from the removal of temporary attachments on all SPCM material. The Contractor also issued an internal NCR in regards to this issue.

**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 152. 1675.3703, who represents the Office of Structural Materials for your project.

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# QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

( Continued Page 2 of 2 )

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**Inspected By:** Simonis,Jim

Quality Assurance Inspector

**Reviewed By:** Wahbeh,Mazen

QA Reviewer