

**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-000537**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 17-Dec-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0510**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> Crossbeam CB8
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Reference Description:** Base Metal Repair without Engineer's Approval, Side Panel SP205A, Crossbeam CB8**Description of Non-Conformance:**

During a random visual inspection of the Orthotropic Box Girder (OBG) Crossbeam CB8, the Caltrans Quality Assurance (QA) Inspector observed ZPMC personnel performing un-approved Seismic Performance Critical Member (SPCM) base metal repairs on the Side Panel (SP) of Crossbeam CB8 without the Engineer's approval.

- The BP was identified as: BP205A
- The SP was identified as: SP205A
- The weld number between the SP and BP is identified as: CB202A-008-017
- The material utilized is A709 Grade 345 SPCM.
- The welding process used was SMAW.

**Applicable reference:**

---

---

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

---

---

Standard Specifications (99) 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 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."

**Who discovered the problem:** Dhanasingh Sukanthan

**Name of individual from Contractor notified:** Kevin Chen

**Time and method of notification:** 0920 hours, 12-17-09, Verbal

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

**Time and method of notification:** 1100 hours, 12-18-09, Verbal

**QC Inspector's Name:** Liu Chuan Gang

**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 Eric Tsang, 15000422372, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Guest,Skylar	SMR
----------------------	--------------	-----

---

<b>Reviewed By:</b>	Wahbeh,Mazen	SMR
---------------------	--------------	-----

---



**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge**

333 Burma Road  
Oakland CA 94607  
Tel: Fax:

**NON-CONFORMANCE REPORT TRANSMITTAL**

<b>To:</b>	AMERICAN BRIDGE/FLUOR, A JV 375 BURMA ROAD OAKLAND CA 95607	<b>Date:</b>	24-Dec-2009
<b>Dear:</b>	Mr. Charles Kanapicki	<b>Contract No:</b>	04-0120F4 04-SF-80-13.2 / 13.9
<b>Attention:</b>	Mr. Thomas Nilsson Project/Fabrication Manager	<b>Job Name:</b>	SAS Superstructure
<b>Subject:</b>	NCR No. ZPMC-0510	<b>Document No:</b>	05.03.06-000498

**Reference Description:** Base Metal Repair without Engineer's Approval, Side Panel SP205A, Crossbeam CB8

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:** Xbeam **Lift:** 08

**Remarks:**

During a random visual inspection of the Orthotropic Box Girder (OBG) Crossbeam CB8, the Caltrans Quality Assurance (QA) Inspector observed ZPMC personnel performing un-approved Seismic Performance Critical Member (SPCM) base metal repairs on the Side Panel (SP) of Crossbeam CB8 without the Engineer's approval.

- The BP was identified as: BP205A
- The SP was identified as: SP205A

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

Submit a repair procedure to the engineer for approval. A response for the resolution of this issue is expected within 7 days.

**Transmitted by:** Bill Howe

**Attachments:** ZPMC-0510

**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

**Dated:** 20-Apr-2010

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

**Attention:** Pursell, Gary  
Resident Engineer

**Job Name:** SAS Superstructure

**Ref:** 05.03.06-000498

**Document No.:** ABF-NPR-000646 **Rev:** 00

**Subject:** NCR No. ZPMC-0510

---

### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC is providing NDT documentation that base metal repairs observed are acceptable. Based on this ZPMC request closure of this NCR.

ZPMC is providing NDT documentation that base metal repairs observed are acceptable. Based on this ZPMC request closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000646R00;

---

### Caltrans' comments:

**Status:** REJ

**Date:** 25-Apr-2010

The NCR shows that the base metal repairs were performed prior to the NCR being written in November 2009 while CWR was approved long after this in March of 2010. Additionally, the MT report for the excavation is dated the same as the MT report for after welding. This conflicts with the SPCM material requirements of AWS D1.5 Section 12.16.4, which requires welds to cool for a period of 24 hours prior to inspection.

**Submitted by:** Eagen, Sean

**Date:** 25-Apr-2010

**Attachment(s):**



No. B-732

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-4-20**

**REGARDING: NCR-000506(ZPMC-0479) NCR-000537(ZPMC-0510)**

ZPMC is providing the NDT records what show these base metal repair are now acceptable. The repair procedure please look at B-CWR 1236. Based on this, ZPMC is requesting closure of these NCRs.

**ATTACHMENT:**

NCR-000506(ZPMC-0479)

NCR-000537(ZPMC-0510)

B787-MT-20791

B787-MT-20792

*fy*  
*4/20/10*



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:** 11-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:** 05.03.06-000469

**Subject:** NCR No. ZPMC-0479

**Reference Description:** SPCM base material repair on CB8 performed without prior Engineer's approval

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:** Xbeam

**Lift:** 08

### Remarks:

This Quality Assurance (QA) inspector observed ZPMC personnel performing base metal weld repairs on material designated as SPCM on the approved shop drawings without prior Engineer's approval. The areas being repaired were damaged while removing temporary lifting lug welds at the corners of this crossbeam. The component is identified as Orthotropic Box Girder (OBG) crossbeam CB8. The Seismic Performance Critical Member (SPCM) panels affected are identified as side panel SP202A and bottom panel BP204A.

### Action Required and/or Action Taken:

Submit a repair plan to the engineer for approval.

**Transmitted by:** Bill Howe

**Attachments:** ZPMC-0479

**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. St. 150

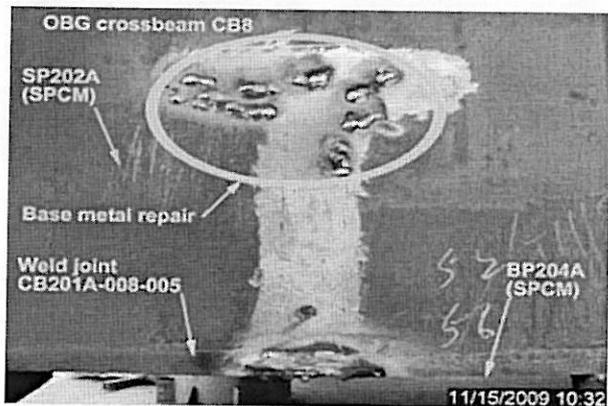
Vallejo, CA 94592-1133

(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-000506**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 15-Nov-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0479**Type of problem:**Welding  Concrete  Other Welding  Curing  Procedural  Bridge No: 34-0006Joint fit-up  Coating  Other  Component: OBG CB8 Side and Bottom PanelProcedural  Procedural  Description:**Reference Description:** SPCM base material repair on CB8 performed without prior Engineer's approval**Description of Non-Conformance:**

This Quality Assurance (QA) inspector observed ZPMC personnel performing base metal weld repairs on material designated as SPCM on the approved shop drawings without prior Engineer's approval. The areas being repaired were damaged while removing temporary lifting lug welds at the corners of this crossbeam. The component is identified as Orthotropic Box Girder (OBG) crossbeam CB8. The Seismic Performance Critical Member (SPCM) panels affected are identified as side panel SP202A and bottom panel BP204A.

**Applicable reference:**

1. AWS D1.5 2002 section 3.3.7.3 "Tack welds not incorporated into the final weld shall be removed in such a manner that the base metal is not nicked or undercut. Repair of base metal accidentally removed shall be approved by the Engineer prior to making the repair.
2. AWS D1.5 2002 section 3.7.4 "Prior approval of the Engineer shall be obtained for repairs to base metal..."

**Who discovered the problem:** Steve Hall

---

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

---

**Name of individual from Contractor notified:** Kelvin Chueng

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

**Name of Caltrans Engineer notified:** Ching Chao and Bill Howe

**Time and method of notification:** 1530 hours, Verbal

**QC Inspector's Name:** Zhang 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.

---

**Inspected By:** Carreon,Albert

Lead Reviewer/Task Leader

**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:** 24-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-0510

**Job Name:** SAS Superstructure

**Document No:** 05.03.06-000498

**Reference Description:** Base Metal Repair without Engineer's Approval, Side Panel SP205A, Crossbeam CB8

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:** Xbeam

**Lift:** 08

### Remarks:

During a random visual inspection of the Orthotropic Box Girder (OBG) Crossbeam CB8, the Caltrans Quality Assurance (QA) Inspector observed ZPMC personnel performing un-approved Seismic Performance Critical Member (SPCM) base metal repairs on the Side Panel (SP) of Crossbeam CB8 without the Engineer's approval.

-The BP was identified as: BP205A

-The SP was identified as: SP205A

### Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval. A response for the resolution of this issue is expected within 7 days.

**Transmitted by:** Bill Howe

**Attachments:** ZPMC-0510

**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. 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-000537

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

**Date:** 17-Dec-2009

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

**NCR #:** ZPMC-0510

**Type of problem:**

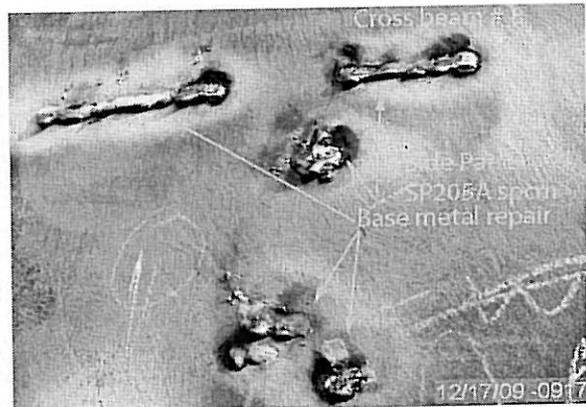
- Welding  Concrete  Other   
 Welding  Curing  Procedural  **Bridge No:** 34-0006  
 Joint fit-up  Coating  Other  **Component:** Crossbeam CB8  
 Procedural  Procedural  **Description:**

**Reference Description:** Base Metal Repair without Engineer's Approval, Side Panel SP205A, Crossbeam CB8

**Description of Non-Conformance:**

During a random visual inspection of the Orthotropic Box Girder (OBG) Crossbeam CB8, the Caltrans Quality Assurance (QA) Inspector observed ZPMC personnel performing un-approved Seismic Performance Critical Member (SPCM) base metal repairs on the Side Panel (SP) of Crossbeam CB8 without the Engineer's approval.

- The BP was identified as: BP205A
- The SP was identified as: SP205A
- The weld number between the SP and BP is identified as: CB202A-008-017
- The material utilized is A709 Grade 345 SPCM.
- The welding process used was SMAW.



**Applicable reference:**

---

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

---

Standard Specifications (99) 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 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."

**Who discovered the problem:** Dhanasingh Sukanthan  
**Name of individual from Contractor notified:** Kevin Chen  
**Time and method of notification:** 0920 hours, 12-17-09, Verbal  
**Name of Caltrans Engineer notified:** Bill Howe  
**Time and method of notification:** 1100 hours, 12-18-09, Verbal  
**QC Inspector's Name:** Liu Chuan Gang  
**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 Eric Tsang, 15000422372, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Guest, Skyler	SMR
<b>Reviewed By:</b>	Wahbeh, Mazen	SMR

---





REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-20792      DATE日期 2010.04.20      PAGE OF页码 1/1      Revision No: 0

PROJECT NO. 工程编号: ZP06-787      CONTRACTOR: 用户: CALTRANS

DRAWING NO. 图号: CB8 LUG      CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4

REFERENCING CODE 参考规范编码: 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. 28<sup>ST</sup>, 2010

EQUIPMENT 设备: MT YOKE      MANUFACTURER 制造商: PARKER      MODEL NO. 样式编号: B310S      SERIAL NO. 连续编号: 5395 5617 5620

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-345F2/T2-X 14/12mm

WELDING PROCESS 焊接方法: SMAW      TYPE OF JOINT 焊缝类型: NA

WELD I.D. 焊缝编号	DISCONTINUITY不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
CB8				ACC.		100%MT

Base metal per B-CWR1236

BLANK

EXAMINED BY主探: Xu Huaxiang      REVIEWED BY审核: Sun H...  
 LEVEL - II SIGN 签名 / DATE日期: 10.04.20      LEVEL-II SIGN / DATE日期: 10.04.20  
 质量经理 / QCM      用户CUSTOMER  
 签字 SIGN / 日期 DATE      签字 SIGN / 日期 DATE

## NCR PROPOSED RESOLUTION

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

**Dated:** 01-Jun-2010

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

**Attention:** Pursell, Gary  
Resident Engineer

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000646 Rev: 01

**Ref:** 05.03.06-000498

**Subject:** NCR No. ZPMC-0510

---

### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC is providing NDT records which show that the testing was performed after the required waiting period and the results are acceptable. Based on this ZPMC requests closure of this NCR.

ZPMC is providing NDT records which show that the testing was performed after the required waiting period and the results are acceptable. Based on this ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000646R01;

---

### Caltrans' comments:

**Status:** CLO

**Date:** 03-Jun-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0510 is closed.

**Submitted by:** Eagen, Sean

**Date:** 03-Jun-2010

**Attachment(s):**



No. B-774

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-5-27**

**REGARDING: NCR-000506(ZPMC-0479) NCR-000537(ZPMC-0510)**

ZPMC is providing the NDT record what shows the repair areas were tested to be acceptable after the required cool period in AWS D1.5. Based on this, ZPMC is requesting closures of these NCRs.

**ATTACHMENT:**

NCR-000506(ZPMC-0479)

NCR-000537(ZPMC-0510)

B787-MT-23503

A handwritten signature in blue ink, appearing to be "Jing" followed by a flourish.

5/27/10



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: 11-Dec-2009

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

Dear: Mr. Charles Kanapicki

Attention: Mr. Thomas Nilsson Project/Fabrication Manager

Job Name: SAS Superstructure

Subject: NCR No. ZPMC-0479

Document No: 05.03.06-000469

Reference Description: SPCM base material repair on CB8 performed without prior Engineer's approval

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: Xbeam

Lift: 08

### Remarks:

This Quality Assurance (QA) inspector observed ZPMC personnel performing base metal weld repairs on material designated as SPCM on the approved shop drawings without prior Engineer's approval. The areas being repaired were damaged while removing temporary lifting lug welds at the corners of this crossbeam. The component is identified as Orthotropic Box Girder (OBG) crossbeam CB8. The Seismic Performance Critical Member (SPCM) panels affected are identified as side panel SP202A and bottom panel BP204A.

### Action Required and/or Action Taken:

Submit a repair plan to the engineer for approval.

Transmitted by: Bill Howe

Attachments: ZPMC-0479

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. 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-000506

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 15-Nov-2009

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

NCR #: ZPMC-0479

### Type of problem:

Welding  Concrete  Other

Welding  Curing  Procedural

Joint fit-up  Coating  Other

Procedural  Procedural  Description:

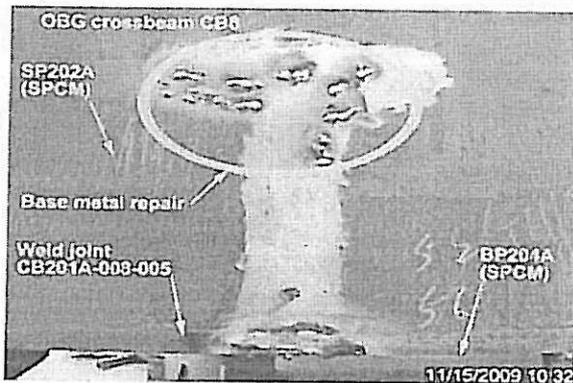
Bridge No: 34-0006

Component: OBG CB8 Side and Bottom Panel

Reference Description: SPCM base material repair on CB8 performed without prior Engineer's approval

### Description of Non-Conformance:

This Quality Assurance (QA) inspector observed ZPMC personnel performing base metal weld repairs on material designated as SPCM on the approved shop drawings without prior Engineer's approval. The areas being repaired were damaged while removing temporary lifting lug welds at the corners of this crossbeam. The component is identified as Orthotropic Box Girder (OBG) crossbeam CB8. The Seismic Performance Critical Member (SPCM) panels affected are identified as side panel SP202A and bottom panel BP204A.



### Applicable reference:

1. AWS D1.5 2002 section 3.3.7.3 "Tack welds not incorporated into the final weld shall be removed in such a manner that the base metal is not nicked or undercut. Repair of base metal accidentally removed shall be approved by the Engineer prior to making the repair.

2. AWS D1.5 2002 section 3.7.4 "Prior approval of the Engineer shall be obtained for repairs to base metal..."

Who discovered the problem: Steve Hall

---

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

---

(Continued Page 2 of 2)

---

Name of individual from Contractor notified: Kelvin Chueng

Time and method of notification: 1430 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao and Bill Howe

Time and method of notification: 1530 hours, Verbal

QC Inspector's Name: Zhang 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.

---

Inspected By: Carreon,Albert

Lead Reviewer/Task Leader

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: 24-Dec-2009

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

Dear: Mr. Charles Kanapicki  
Attention: Mr. Thomas Nilsson Project/Fabrication Manager

Job Name: SAS Superstructure  
Document No: 05.03.06-000498

Subject: NCR No. ZPMC-0510

Reference Description: Base Metal Repair without Engineer's Approval, Side Panel SP205A, Crossbeam CB8

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: Xbeam

Lift: 08

### Remarks:

During a random visual inspection of the Orthotropic Box Girder (OBG) Crossbeam CB8, the Caltrans Quality Assurance (QA) Inspector observed ZPMC personnel performing un-approved Seismic Performance Critical Member (SPCM) base metal repairs on the Side Panel (SP) of Crossbeam CB8 without the Engineer's approval.

-The BP was identified as: BP205A

-The SP was identified as: SP205A

### Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval. A response for the resolution of this issue is expected within 7 days.

Transmitted by: Bill Howe

Attachments: ZPMC-0510

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. 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-000537  
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV **Date:** 17-Dec-2009  
**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0510

**Type of problem:**

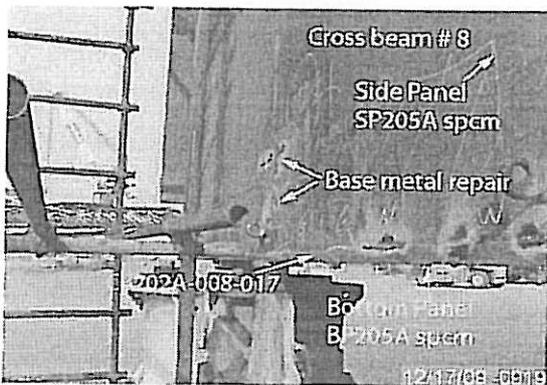
- Welding  Concrete  Other   
 Welding  Curing  Procedural  **Bridge No:** 34-0006  
 Joint fit-up  Coating  Other  **Component:** Crossbeam CB8  
 Procedural  Procedural  Description:

**Reference Description:** Base Metal Repair without Engineer's Approval, Side Panel SP205A, Crossbeam CB8

**Description of Non-Conformance:**

During a random visual inspection of the Orthotropic Box Girder (OBG) Crossbeam CB8, the Caltrans Quality Assurance (QA) Inspector observed ZPMC personnel performing un-approved Seismic Performance Critical Member (SPCM) base metal repairs on the Side Panel (SP) of Crossbeam CB8 without the Engineer's approval.

- The BP was identified as: BP205A
- The SP was identified as: SP205A
- The weld number between the SP and BP is identified as: CB202A-008-017
- The material utilized is A709 Grade 345 SPCM.
- The welding process used was SMAW.



**Applicable reference:**

---

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

---

Standard Specifications (99) 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 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."

**Who discovered the problem:** Dhanasingh Sukanthan  
**Name of individual from Contractor notified:** Kevin Chen  
**Time and method of notification:** 0920 hours, 12-17-09, Verbal  
**Name of Caltrans Engineer notified:** Bill Howe  
**Time and method of notification:** 1100 hours, 12-18-09, Verbal  
**QC Inspector's Name:** Liu Chuan Gang  
**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 Eric Tsang, 15000422372, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b> Guest, Skyler	SMR
<b>Reviewed By:</b> Wahbeh, Mazen	SMR

---



**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-000647**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 03-Jun-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0510**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:** 17-Dec-2009**Description of Non-Conformance:**

During a random visual inspection of the Orthotropic Box Girder (OBG) Crossbeam CB8, the Caltrans Quality Assurance (QA) Inspector observed ZPMC personnel performing un-approved Seismic Performance Critical Member (SPCM) base metal repairs on the Side Panel (SP) of Crossbeam CB8 without the Engineer's approval.

-The BP was identified as: BP205A

-The SP was identified as: SP205A

-The weld number between the SP and BP is identified as: CB202A-008-017

-The material utilized is A709 Grade 345 SPCM.

-The welding process used was SMAW.

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

Perform NDT required to verify weld quality.

**Corrective action taken:**

Contractor submitted NDT report verifying the repairs are in conformance with Contract weld quality requirements.

**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.

---

---

# QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

( Continued Page 2 of 2 )

---

---

**Inspected By:** Simonis,Jim

Quality Assurance Inspector

**Reviewed By:** Wahbeh,Mazen

QA Reviewer