

**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-000805

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

**Date:** 17-Jul-2010

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

**NCR #:** ZPMC-0767

### 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> Segment 7BW Floorbeam & Bottom Panel
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Reference Description:** Segment 7BW Floorbeam & Bottom Panel at the FL3 area was damaged during its loading onto the ship

### Description of Non-Conformance:

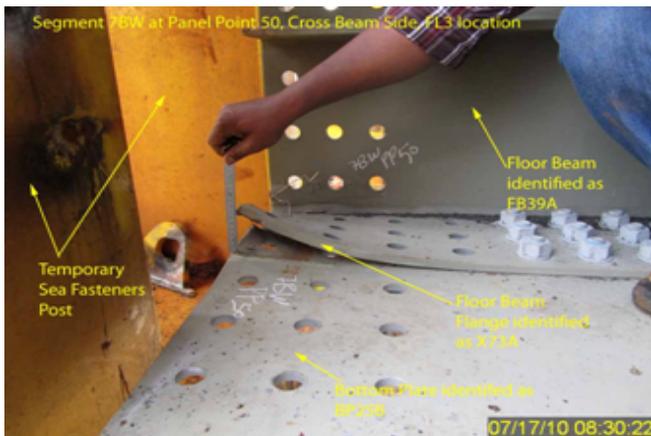
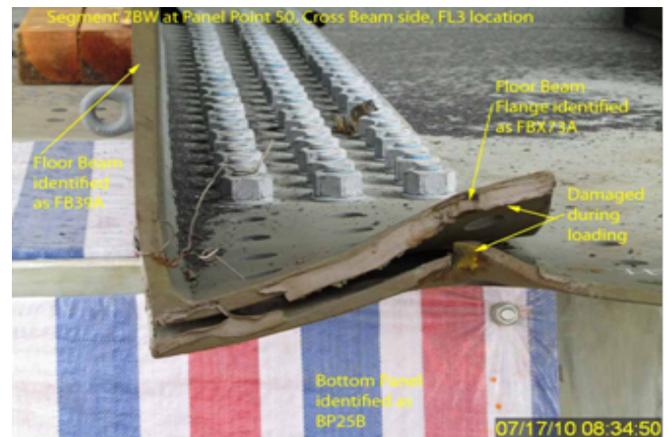
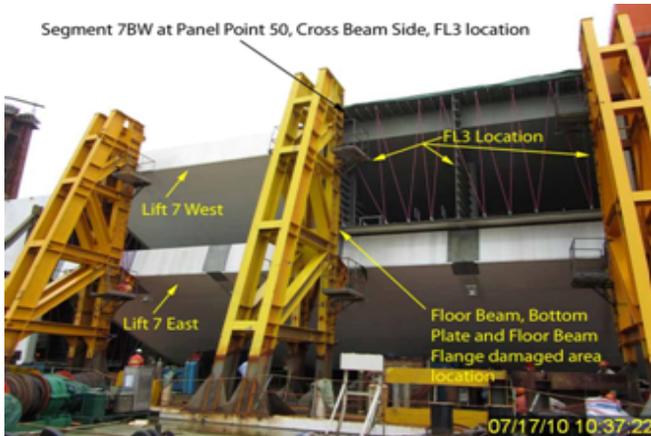
During Quality Assurance (QA) random in-process visual inspection this QA inspector discovered the following issues.

- Segment 7BW was damaged during its loading onto the ship. The damage areas were at the lower portion of the Floor Beam, the adjacent Floor Beam Bottom Flange, and the adjacent Bottom Panel at the FL3 Location. The measured maximum bent is at the Bottom Panel near the Crossbeam connection at Panel Point 50. The skin is out of flatness with a maximum deflection of 70mm when measured with 630mm Straight Edge.
- The FL3 location Floor Beam identified as FB39A.
- The Floor Beam Web identified as X90A.
- The Floor Beam Flange identified as X73A.
- The Bottom Plate identified as BP25B.
- Segment 7BW is located on Ship Zhenhua #19.



# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 3 )



## Applicable reference:

Standard Specifications July, 1999 Section 55-1.04 Shipping, Handling and Storing Materials; "In handling and shipping of the steel work, every care shall be taken to avoid bending, scraping or overstressing the pieces. All pieces bent or otherwise injured will be rejected.

**Who discovered the problem:** S. Manjunath. Math.

**Name of individual from Contractor notified:** Lay Tao

**Time and method of notification:** 10:40 hours, 07/17/10, Verbal

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 3 of 3 )

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**Name of Caltrans Engineer notified:** Laraine Woo, Roman Granados, Aaron Prchlik

**Time and method of notification:** 09:00 hours, 07/17/10, Verbal

**QC Inspector's Name:** Zhang Chao Bin

**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 Jim Devey, (86) 150-0002-6784, 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>	Devey, Jim	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:** 19-Jul-2010

**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:** 05.03.06-000763

**Subject:** NCR No. ZPMC-0767

**Reference Description:** Segment 7BW Floorbeam & Bottom Panel at the FL3 area was damaged during its loading onto the ship

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:** 07

**Remarks:**

During Quality Assurance (QA) random in-process visual inspection this QA inspector discovered the following issues.

- Segment 7BW was damaged during its loading onto the ship. The damage areas were at the lower portion of the Floor Beam, the adjacent Floor Beam Bottom Flange, and the adjacent Bottom Panel at the FL3 Location. The measured maximum bent is at the Bottom Panel near the Crossbeam connection at Panel Point 50. The skin is out of flatness with a maximum deflection of 70mm when measured with 630mm Straight Edge.
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- The Floor Beam Web identified as X90A.
- The Floor Beam Flange identified as X73A.
- The Bottom Plate identified as BP25B.
- Segment 7BW is located on Ship Zhenhua #19.

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

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 7 days.

**Transmitted by:** Laraine Woo Transportation Engineer

**Attachments:** ZPMC-0767

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao, Bill Casey  
**File:** 05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000763

**Subject:** NCR No. ZPMC-0767

**Dated:** 24-Aug-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000746 Rev: 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC has repaired the areas documented in the NCR and is providing NDT documents to show that it is acceptable.

ZPMC has repaired the areas documented in the NCR and is providing NDT documents to show that it is acceptable. ZPMC QA has written an internal NCR to the handling department to ensure that this is prevented in future occurrences. Based on this ZPMC request closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000746R00;

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### Caltrans' comments:

**Status:** AAP

**Date:** 31-Aug-2010

Please specify the new weld numbers that were added for the plates spliced into the damaged areas. ZPMC had identified the new weld numbers. Clarificatin is needed to verify if BP025-007-054 is the new weld added to the Bottom Plate and SSD10A-PP050-275 is the new weld added to the FB.

**Submitted by:** Woo, Laraine

**Attachment(s):**

**Date:** 31-Aug-2010



No. B-848

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-08-24**

**REGARDING: NCR-000805(ZPMC-0767)**

ZPMC acknowledged this problem and has issued an internal NCR. ZPMC is providing the NDT records show the affected welds are accepted after rectification. Based on this, ZPMC is requesting closure of this NCR.

**ATTACHMENT:**

NCR-000805(ZPMC-0767)

B787-UT-14280

B787-UT-14281

B787-MT-25719

B787-MT-25718

A handwritten signature in black ink, appearing to be 'Ley' followed by a flourish.

8/24/10



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: 19-Jul-2010

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: 05.03.06-000763

Subject: NCR No. ZPMC-0767

Reference Description: Segment 7BW Floorbeam & Bottom Panel at the FL3 area was damaged during its loading onto the ship

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- Quality Control (QC) not performed in conformance with contract documents.
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Material Location: OBG

Lift: 07

### Remarks:

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Transmitted by: Laraine Woo Transportation Engineer

Attachments: ZPMC-0767

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

File: 05.03.06

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**DIVISION OF ENGINEERING SERVICES**  
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Contract #: 04-0120F4  
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 File #: 69.25B

**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT**

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

**Report No:** NCR-000805

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

**Date:** 17-Jul-2010

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

**NCR #:** ZPMC-0767

**Type of problem:**

- Welding  Concrete  Other   
 Welding  Curing  Procedural   
 Joint fit-up  Coating  Other   
 Procedural  Procedural  Description:

**Bridge No:** 34-0006

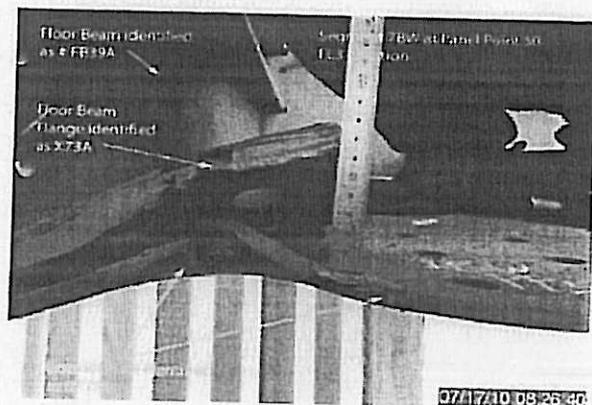
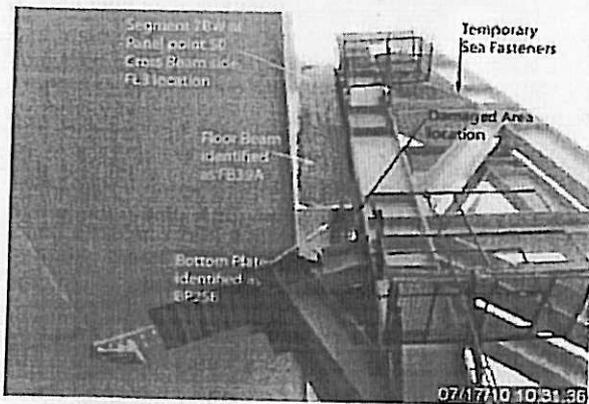
**Component:** Segment 7BW Floorbeam & Bottom Panel

**Reference Description:** Segment 7BW Floorbeam & Bottom Panel at the FL3 area was damaged during its loading onto the ship

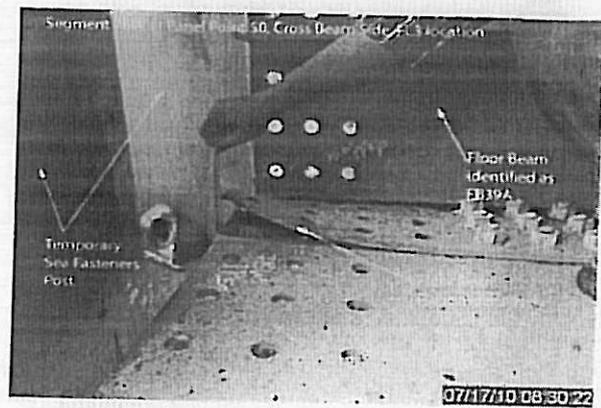
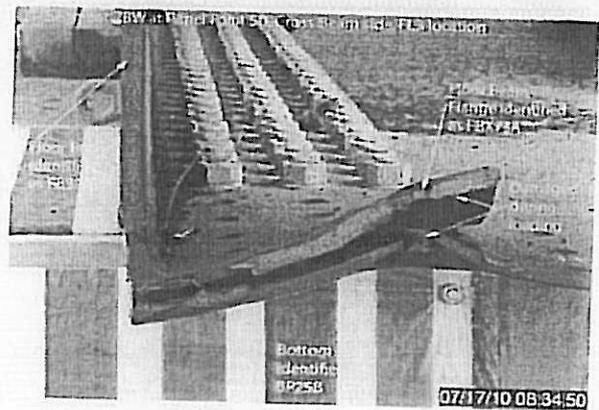
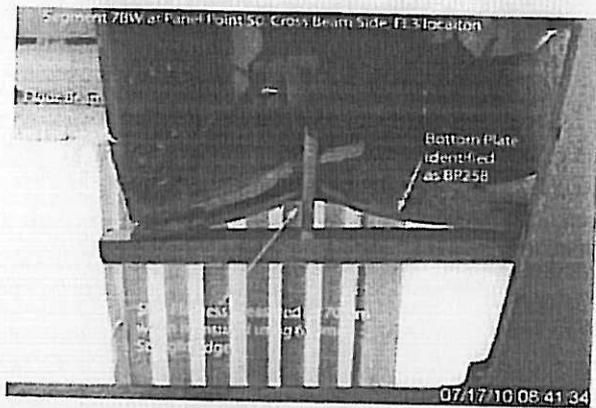
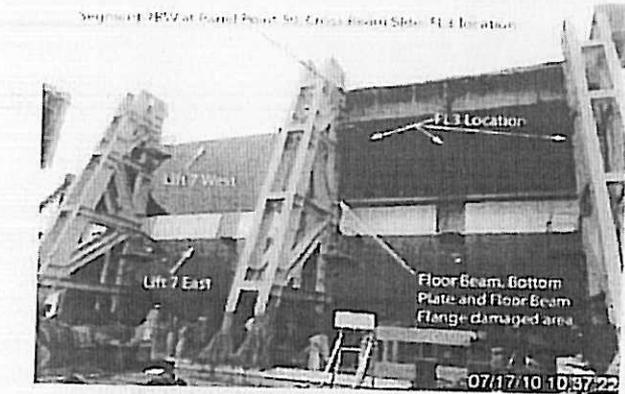
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- Segment 7BW is located on Ship Zhenhua #19.



**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT**  
 ( Continued Page 2 of 3 )



**Applicable reference:**

Standard Specifications July, 1999 Section 55-1.04 Shipping, Handling and Storing Materials; "In handling and shipping of the steel work, every care shall be taken to avoid bending, scraping or overstressing the pieces. All pieces bent or otherwise injured will be rejected.

**Who discovered the problem:** S. Manjunath. Math.

**Name of individual from Contractor notified:** Lay Tao

**Time and method of notification:** 10:40 hours, 07/17/10, Verbal

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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(Continued Page 3 of 3)

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Name of Caltrans Engineer notified: Laraine Woo, Roman Granados, Aaron Prchlik

Time and method of notification: 09:00 hours, 07/17/10, Verbal

QC Inspector's Name: Zhang Chao Bin

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 Jim Devey, (86) 150-0002-6784, who represents the Office of Structural Materials for your project.

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Inspected By: Tsang, Eric

SMR

Reviewed By: Devey, Jim

SMR

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# REPORT OF ULTRASONIC EXAMINATION

## UT探伤报告

REPORT NO. 报告编号 B787-UT-14281      DATE 2010.08.08      PAGE 1 OF 1      Revision No: 0

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

ITEMS NAME: 7BW BOX BOTTOM PLATE      DRAWING NO.: BP25A      CALTRANS CONTRACT NO.: 04-0120F4  
 部件名称      图号      加州工程编号

REFERENCING CODE 参考规范      ACCEPTANCE STANDARD 接受标准      PROCEDURE NO. 程序编号  
 AWS D1.5-2002      AWS D1.5-2002(Table 6.3)      ZPQC-UT-01

WELDING PROCESS 焊接方法      JOINT TYPE 焊缝类型      CALIBRATION DUE DATE 仪器校正有效期  
 SMAW      BUTT      Dec. 28<sup>ST</sup>, 2010

EQUIPMENT 设备      MANUFACTURER 制造商      MODEL NO. 样式编号      SERIAL NO. 序列编号  
 UT SCOPE      PANAMETRICS      EPOCH-4B      071565311, 061488510, 061495811, 070152011,

CALIBRATION BLOCK 试块      COUPLANT 耦合剂      MATERIAL/THICKNESS 材料厚度  
 AWS IIW BLOCK TYPE II      C.M.C      A709M-345      12mm

### TRANSDUCER 探头

MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸	MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸
Changchao	70°	2.5MHz	18×18mm				
Changchao	0°	2.5MHz	20mm	Reference Level 参考灵敏度		20dB	

Base metal inspected per AWS D1.5-2002 Section 6.19.5      0° UT OK.

WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	Remark 备注	
					Indication Level	Reference Level	Attenuation Factor	Indication Rating	LOCATION OF DISCONTINUITY 不连续位置(mm)							
									a	b	c	d	Length 长度			Sound Path 声程
BP025-007-054		70				32									ACC.	100%
BLANK																

EXAMINED BY 主探 Tang xing shan      REVIEWED BY 审核 xu hairong  
 LEVEL - II SIGN / DATE 2010.08.08      LEVEL - II SIGN / DATE 2010.08.08

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000763

**Subject:** NCR No. ZPMC-0767

**Dated:** 07-Sep-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000746 Rev: 01

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### Contractor's Proposed Resolution:

**Reference Resolution:** To clarify ZPMC's response, BP025-007-054 was the new weld added to the bottom plate and SSD10A-PP050-275 was added to the floorbeam during the repair.

To clarify ZPMC's response, BP025-007-054 was the new weld added to the bottom plate and SSD10A-PP050-275 was added to the floorbeam during the repair. Based on this ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000746R01

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### Caltrans' comments:

**Status:** CLO

**Date:** 14-Sep-2010

The proposed resolution is acceptable. This NCR is considered closed.

**Submitted by:** Woo, Laraine

**Attachment(s):**

**Date:** 14-Sep-2010

**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-000768**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 14-Sep-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0767**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:** 17-Jul-2010**Description of Non-Conformance:**

During Quality Assurance (QA) random in-process visual inspection this QA inspector discovered the following issues.

- Segment 7BW was damaged during its loading onto the ship. The damage areas were at the lower portion of the Floor Beam, the adjacent Floor Beam Bottom Flange, and the adjacent Bottom Panel at the FL3 Location. The measured maximum bent is at the Bottom Panel near the Crossbeam connection at Panel Point 50. The skin is out of flatness with a maximum deflection of 70mm when measured with 630mm Straight Edge.
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- Segment 7BW is located on Ship Zhenhua #19.

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

Remove and replace damaged portion of affected members.

**Corrective action taken:**

Damaged areas were removed and replaced. Contractor has submitted post repair NDT documentation verifying newly added welds conform with Contract weld quality requirements. Weld maps and as-built plans will be updated to show new welds.

**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.

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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

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**Reviewed By:** Wahbeh,Mazen

QA Reviewer