

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



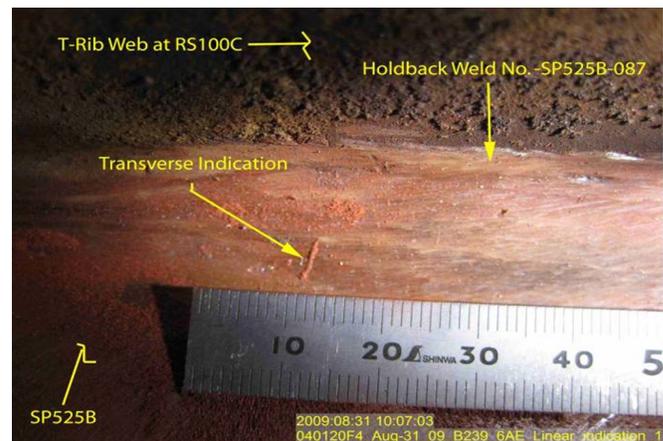
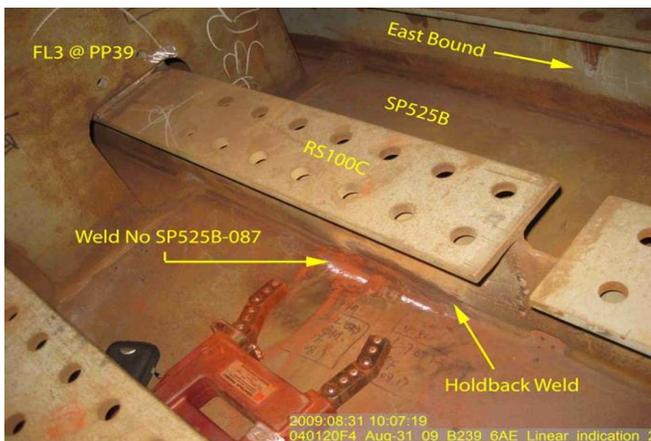
Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-000422**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 05-Sep-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0396**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 Segment 6AE Side Panel to WT Weld
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b> WT Stiffener to Side Panel Fillet Weld Joint	

**Reference Description:** Accepted Repair by QC still contains a missed MT Transverse Indication**Description of Non-Conformance:**

During random verification Magnetic Particle Testing of side panel SP525B holdback welds at panel point 39, weld number SP525B-087, Caltrans Quality Assurance (QA) Inspector discovered a total of one (1) transverse linear indication that measured a total of 8mm in length. This weld was previously tested, rejected and the repairs accepted by ZPMC (MT) technicians.

**Applicable reference:**

Special Provisions Section 8.3 – “Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents.”

AWS D1.5 (02) Section 6.26.2 – “Welds that are subject to MT in addition to visual inspection shall have no cracks.”

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Who discovered the problem:** Rodney Patterson  
**Name of individual from Contractor notified:** Man Kit Li  
**Time and method of notification:** 1030, Verbal  
**Name of Caltrans Engineer notified:** Bill Howe  
**Time and method of notification:** 1430, Email  
**QC Inspector's Name:** Tao Lei  
**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
<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:** 23-Sep-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:** 05.03.06-000385

**Subject:** NCR No. ZPMC-0396

**Reference Description:** Accepted Repair by QC still contains a missed MT Transverse Indication

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:** N/A

**Remarks:**

During random verification Magnetic Particle Testing of side panel SP525B holdback welds at panel point 39, weld number SP525B-087, Caltrans Quality Assurance (QA) Inspector discovered a total of one (1) transverse linear indication that measured a total of 8mm in length. This weld was previously tested, rejected and the repairs accepted by ZPMC (MT) technicians.

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

Submit a repair plan to the engineer for approval.

**Transmitted by:** Bill Howe

**Attachments:** ZPMC-0396

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Doug Coe, 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:** 05.03.06-000385

**Subject:** NCR No. ZPMC-0396

**Dated:** 16-Oct-2009

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000387 Rev: 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** ABFJV QCM has implemented training with ZPMC to improve the quality of inspections. ABFJV will provide documentation showing attendance by ZPMC QC inspectors and the subject of training.

ABFJV QCM has implemented training with ZPMC to improve the quality of inspections. ABFJV will provide documentation showing attendance by ZPMC QC inspectors and the subject of training. Topics to be covered during the instruction are: inspection of equipment prior to use, proper conditions for inspection, proper technique for MT, and UT. In addition, ABFJV has committed to perform overchecks in both the Tower and OBG. This will serve two purposes, first to monitor if the training is effective at reducing the number of missed indications and second to ensure missed indications are prevented.

Documentation of repairs and subsequent NDT specific to this report will be transmitted through Daily Welding Reports and will be available in the documentation data base. Based on this course of action, ZPMC is requesting that this proposed resolution be approved with action pending. Once training records are available to be transmitted, ZPMC will request closure of this NCR.

### Submitted by:

**Attachment(s):** ABF-NPR-000387R00

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### Caltrans' comments:

**Status:** REJ

**Date:** 19-Oct-2009

The proposed resolution for training the QC inspectors is acceptable. However, documentation of repairs and subsequent NDT specific to this NCR should be submitted, along with the training records, for the Department's review prior to closure of the NCR.

**Submitted by:** Chao, Ching

**Date:** 19-Oct-2009

**Attachment(s):**

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000385

**Subject:** NCR No. ZPMC-0396

**Dated:** 14-Dec-2009

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000387 Rev: 01

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**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC has repaired the missed indication by grinding and performed NDT of the weld to show that is acceptable and attached documentation.

ZPMC has repaired the missed indication by grinding and performed NDT of the weld to show that is acceptable and attached documentation. Training documents and sign in sheet of those tested have been transmitted to Caltrans previously. Based on this ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000387R01;

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**Caltrans' comments:**

**Status:** CLO  
**Date:** 29-Dec-2009

The documentation received closes this NCR.

**Submitted by:** Howe, Bill

**Attachment(s):**

**Date:** 29-Dec-2009



No. B-533

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2009-12-12**

**REGARDING: NCR-000422(ZPMC-0396)**

With this letter of response, ZPMC requests closure for CALTRANS NCR-000422(ZPMC-0396) what mentioned that QA observed missed MT indication .

ZPMC acknowledged these problems and has issued internal NCR. ZPMC arranged grinder and removed the linear indication by a little grinding on site. After repair MT were done to warrant this weld's quality.

To enhance our MT inspection, training was performed to all the MT inspectors by ABF's QCM. So ZPMC provide internal NCR, MT documentations, hoping CALTRANS could take a review and consider close this NCR.

**ATTACHMENT:**

NCR-B-264

NCR-000422(ZPMC-0396)

B787-MT-16623

*Handwritten signature*  
12/12/09



# 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-264 (ZPMC-0396)

Item: OBG Segment 6AE Side  
Panel to WT Weld  
名称描述: 6AE 与 T 型钢连接处

Item Number:  
件号:

Drawing:  
图号: 6AE

Location: outside yard  
位置: 外场

Date:  
日期: 2009-9-30

### Description of Nonconformance: 不符合项状态描述:

During random verification Magnetic Particle Testing of side panel SP525B holdback welds at panel point 39, weld number SP525B-087, Caltrans Quality Assurance (QA) Inspector discovered a total of one (1) transverse linear indication that measured a total of 8mm in length. This weld was previously tested, rejected and the repairs accepted by ZPMC (MT) technicians.

在随机 MT 抽查 PP39 SP525B 板上的预留焊缝时 (焊缝号是 SP525B-087), 加州检验员发现一条横向裂纹, 长度为 8mm。这条焊缝之前检验过, 拒收并且由 ZPMC 返修后 MT 接受。

Work By: *[Signature]*  
施工方:

Prepared by: *[Signature]*  
准备:

Reviewed by QCE:

质量工程师批准: *[Signature]*

- 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:

建议: *重新检测, 打磨处理*    Re-inspected and removed by grinding.

Prepared by: *[Signature]*  
准备

Approved by QCA: \_\_\_\_\_  
质量经理批准

### Reason for Nonconformance:

不符合原因: *线性缺陷*  
Discover Linear defect.

### Prevention of Re-occurrence:

预防措施: *加强检验*  
Enhance inspection.

Approved by/批准: *[Signature]*

Technical Justification for Use-As-Is/Repair: <input type="checkbox"/> Attachment <input type="checkbox"/> Non-attachment	
回用或返修的技术依据:	附件 无附件
Reviewed /批准: _____	
Verification: <input type="checkbox"/> Acceptable <input type="checkbox"/> 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: _____	

#R787-QCP-1300



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:** 23-Sep-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:** 05.03.06-000385

**Subject:** NCR No. ZPMC-0396

**Reference Description:** Accepted Repair by QC still contains a missed MT Transverse Indication

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- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

**Material Location:** OBG

**Lift:** N/A

**Remarks:**

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

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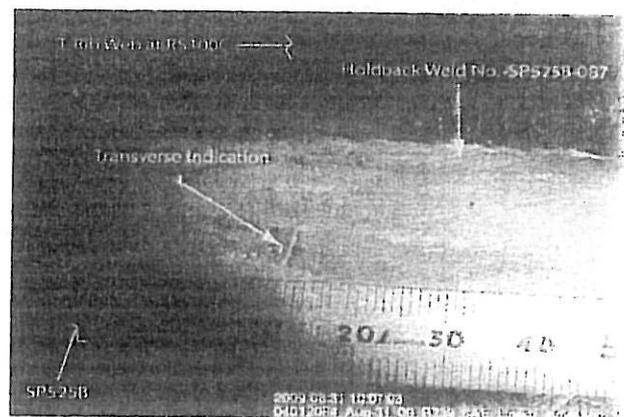
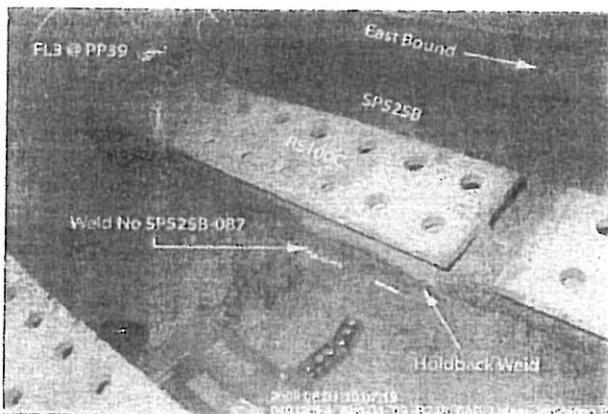
**Transmitted by:** Bill Howe

**Attachments:** ZPMC-0396

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Doug Coe, 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 InspectionBay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493Contract #: 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-000422**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 05-Sep-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0396**Type of problem:**Welding  Concrete  Other Welding  Curing  Procedural  **Bridge No:** 34-0006Joint fit-up  Coating  Other  **Component:** OBG Segment 6AE Side Panel to WT WeldProcedural  Procedural  **Description:** WT Stiffener to Side Panel Fillet Weld Joint**Reference Description:** Accepted Repair by QC still contains a missed MT Transverse Indication**Description of Non-Conformance:**

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AWS D1.5 (02) Section 6.26.2 – “Welds that are subject to MT in addition to visual inspection shall have no cracks.”

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Who discovered the problem:** Rodney Patterson  
**Name of individual from Contractor notified:** Man Kit Li  
**Time and method of notification:** 1030, Verbal  
**Name of Caltrans Engineer notified:** Bill Howe  
**Time and method of notification:** 1430, Email  
**QC Inspector's Name:** Tao Lei  
**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
<b>Reviewed By:</b>	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-000436**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 13-Jan-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0396**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:** 05-Sep-2009**Description of Non-Conformance:**

During random verification Magnetic Particle Testing of side panel SP525B holdback welds at panel point 39, weld number SP525B-087, Caltrans Quality Assurance (QA) Inspector discovered a total of one (1) transverse linear indication that measured a total of 8mm in length. This weld was previously tested, rejected and the repairs accepted by ZPMC (MT) technicians.

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

Remove indication by means of grinding.

**Corrective action taken:**

Indication was removed by grinding, Contractor submitted NDT documentation verifying the weld is in conformance with Contract specifications.

**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