

**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-000962  
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV **Date:** 30-Dec-2010  
**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0921

**Type of problem:**

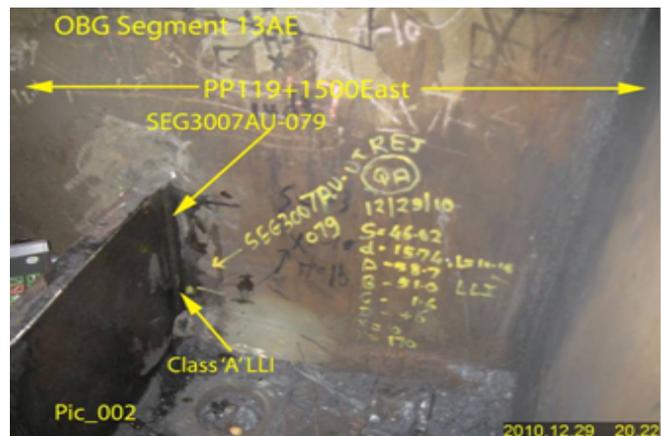
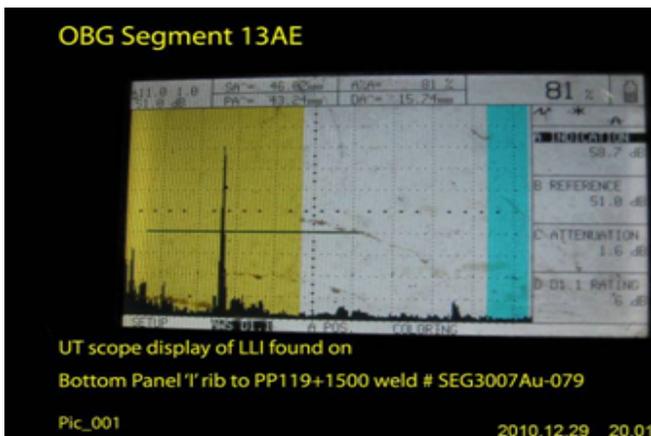
<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b> Segment 13AE Bottom to Floorbeam joint
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b> QA found a missed UT indication	

**Reference Description:** QA found 1 missed UT indication in Segment 13AE Bottom to Floorbeam joint

**Description of Non-Conformance:**

During the Quality Assurance (QA) Ultrasonic Testing (UT) review of welds located on Orthotropic Box Girder (OBG) Segment 13AE, this QA Inspector discovered the following issues:

- One (1) longitudinal Class "A" rejectable indication measuring approximately 15mm in length in the Bottom Panel Rib Stiffener attachment weld to the Floor beam at panel point 119+1500.
- The weld is identified as SEG3007AU-079.
- The Indication dB rating is +6dB.
- Material thickness is 28 mm and depth of the indication is approximately 15.74 mm.
- The indication is clearly marked near weld.
- The 'Y' location of indication is 170 mm from upper leading edge of the 'I' Rib.
- Segment 13AE is located in Bay 14.
- The notice of witness inspection (NWIT) no. is 07974. The indication is located within the area which was previously tested and accepted by ZPMC Quality Control (QC) personnel. As per contract documents, ZPMC's QC personnel are required to perform hundred (100%) percent UT inspection of this weld.



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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Applicable reference:**

AWS D1.5-02 Section 6; Table 6.3 specifies a class "A" indication as having a rating of 8dbs and under for material thicknesses 20mm through 38mm.

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."

**Who discovered the problem:** Ramesh Gade

**Name of individual from Contractor notified:** Lee Mankit

**Time and method of notification:** 12/30/10, 0800, Verbal

**Name of Caltrans Engineer notified:** Laraine Woo

**Time and method of notification:** 12/30/10, 1700, Email

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

**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 Mazen Wahbeh, (818) 292-0659, 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>	Wahbeh, Mazen	SMR
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## NCR PROPOSED RESOLUTION

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

**Attention:** Siegenthaler, Peter  
Resident Engineer

**Ref:** 05.03.06-000919

**Subject:** NCR No. ZPMC-0921

**Dated:** 18-Jan-2011

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000912 Rev: 00

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**Contractor's Proposed Resolution:**

**Reference Resolution:**

ZPMC-0921  
Please see ZPMC's comments

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000912R00;

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**Caltrans' comments:**

**Status:** CLO

**Date:** 18-Jan-2011

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0921 is closed.

**Submitted by:** Eagen, Sean

**Attachment(s):**

**Date:** 18-Jan-2011



No. B-967

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2011-01-16**

**REGARDING: NCR-000962(ZPMC-0921)**

ZPMC acknowledged this problem and has issued an internal NCR. ZPMC has repaired the indications noted in the NCR and is providing NDT documentation after the repair to show the indication has been removed. ABFJV has noted which inspector was responsible for this missed indications and is monitoring his performance as well as all inspector performance, if he continues to miss indications disciplinary action will be undertaken. Based on these actions, ZPMC requests closure of this NCR.

**ATTACHMENT:**

NCR-000962(ZPMC-0921)

B787-UT-19439 R1

*[Handwritten signature]*  
*1/16/2011*

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File #: 69.25B

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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

Report No: NCR-000962

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 30-Dec-2010

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

NCR #: ZPMC-0921

### Type of problem:

Welding  Concrete  Other Welding  Curing  Procedural  Bridge No: 34-0006Joint fit-up  Coating  Other  Component: Segment 13AE Bottom to Floorbeam jointProcedural  Procedural  Description: QA found a missed UT indication

Reference Description: QA found 1 missed UT indication in Segment 13AE Bottom to Floorbeam joint

### Description of Non-Conformance:

During the Quality Assurance (QA) Ultrasonic Testing (UT) review of welds located on Orthotropic Box Girder (OBG) Segment 13AE, this QA Inspector discovered the following issues:

-One (1) longitudinal Class "A" rejectable indication measuring approximately 15mm in length in the Bottom Panel Rib Stiffener attachment weld to the Floor beam at panel point 119+1500.

-The weld is identified as SEG3007AU-079.

-The Indication dB rating is +6dB.

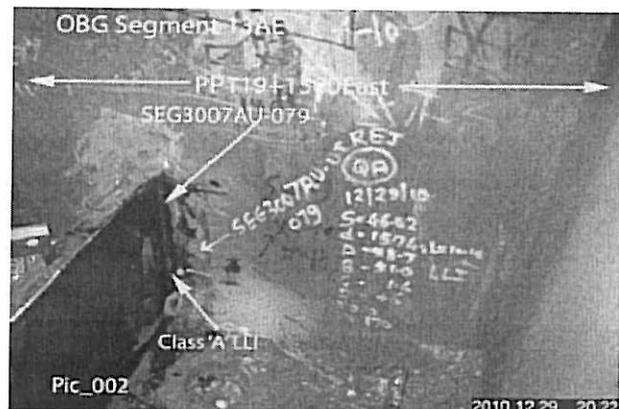
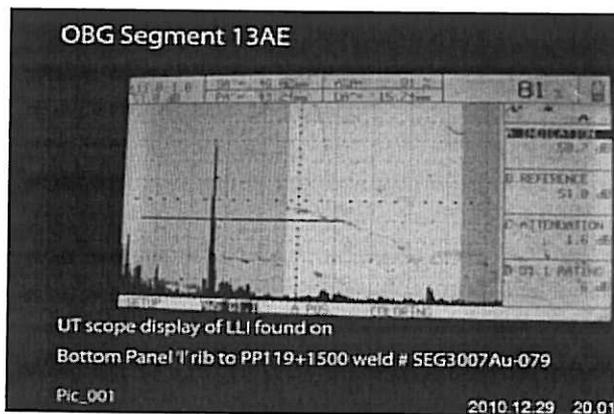
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-The indication is clearly marked near weld.

-The 'Y' location of indication is 170 mm from upper leading edge of the 'I' Rib.

-Segment 13AE is located in Bay 14.

-The notice of witness inspection (NWIT) no. is 07974. The indication is located within the area which was previously tested and accepted by ZPMC Quality Control (QC) personnel. As per contract documents, ZPMC's QC personnel are required to perform hundred (100%) percent UT inspection of this weld.



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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Applicable reference:**

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

**Was QC Inspector aware of the problem:**  Yes  No

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

**Comments:**

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<b>Inspected By:</b> Tsang, Eric	SMR
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<b>Reviewed By:</b> Wahbeh, Mazen	SMR
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NCR 921



# REPORT OF ULTRASONIC EXAMINATION

## UT探伤报告

REPORT NO. 报告编号 B787-UT-19439R1      DATE 2011.01.13      PAGE 1 OF 1      Revision No: 0

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

ITEMS NAME: 13AE FLOOR BEAM      DRAWING NO.: SEG3007AV      CALTRANS CONTRACT NO.: 04-0120F4  
 部件名称      图号      加州工程编号

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

WELDING PROCESS 焊接方法 FCAW      JOINT TYPE 焊缝类型 T JOINT BUTT      CALIBRATION DUE DATE 仪器校正有效期 Dec. 28<sup>ST</sup>, 2011

EQUIPMENT 设备      MANUFACTURER 制造商 AMERICA      MODEL NO. 样式编号 EPOCH 4B      SERIAL NO. 序列编号 071566111

CALIBRATION BLOCK 试块 AWS IIV BLOCK TYPE II      COUPLANT 耦合剂 C.M.C      MATERIAL/THICKNESS 材料厚度 A709M-345T2 28mm

### 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
AMERICA	70°	2.25MHz	0.75×0.625 in				
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
SEG3007AV-091	1R1	70				40									ACC.	100%
SEG3007AV-099	1R1	70				40									ACC.	100%
SEG3007AU-079	1R1	70				40									ACC.	100%

AFTER B-WR18917

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EXAMINED BY 主探 <u>Qin Quanfu</u> LEVEL - II SIGN / DATE 2011.01.13 质量经理 / QCM <u>[Signature]</u> 签字 SIGN / 日期 DATE 2011.01.13	REVIEWED BY 审核 <u>Tang Xingshan</u> LEVEL - II SIGN / DATE 2011.01.13 用户 CUSTOMER _____ 签字 SIGN / 日期 DATE _____
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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, P.R. China**Report No:** NCS-000930**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 18-Jan-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0921**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:** 30-Dec-2010**Description of Non-Conformance:**

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

Contractor proposes to repair the weld and remove the indications. Contractor will provide the NDT report after repairing. ZPMC will identify the inspector and issue an internal NCR to him. Contractor will monitor his performance. If he misses the indications continuously, disciplinary action will be taken.

**Corrective action taken:**

Contractor removed the indications, and repaired the weld. Contractor provided the NDT report to prove the welds are acceptable. Contractor identified the inspector and monitors his performance.

**Did corrective action require Engineer's approval?** Yes No**If so, name of Engineer providing approval:****Date:****Is Engineer's approval attached?**

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## QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

( Continued Page 2 of 2 )

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**Yes    No**

**Comments:**

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<b>Inspected By:</b>	Ng,Michael	Quality Assurance Inspector
<b>Reviewed By:</b>	Wahbeh,Mazen	QA Reviewer

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