

**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-000878**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 27-Oct-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0840**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 11AE/11BE T-Rib
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b> Missed UT Indication by QC Inspection	

**Reference Description:** QA found 2 missed UT indications after ZPMC had tested and accepted the weld at Segment 11AE/11BE T-Rib Splices

**Description of Non-Conformance:**

During the Quality Assurance (QA) Ultrasonic Testing (UT) review of welds located on Orthotropic Box Girder (OBG) Segment 11AE to 11BE splice joint, this QA Inspector discovered the following issues:

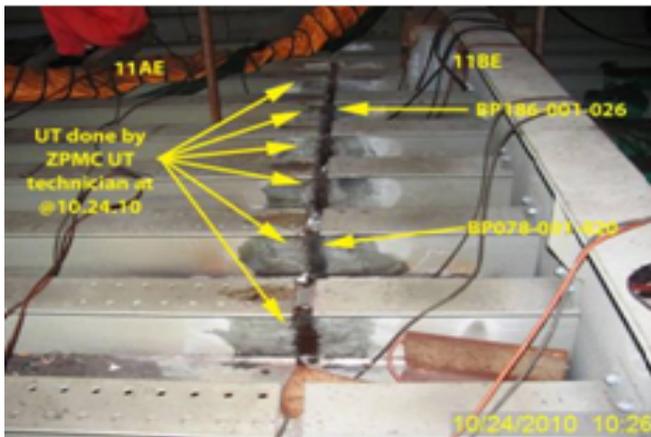
- Two (2) longitudinal linear Class "A" rejectable indications measuring approximately 20 and 25mm in length.
- The welds are identified as BP186-001-026 and BP078-001-020 respectively.
- Material thickness is 10mm.
- The depth of the indications: approximately 6 and 8mm respectively.
- The indication dBs ratings are +7 and +9 respectively.
- The welds are Complete Joint Penetration (CJP) butt joints, joining bottom plate T-ribs on 11AE to bottom plate T-ribs on 11BE.
- The welds are designated as non Seismic Performance Critical Material (Non SPCM).
- The indications are clearly marked near the welds.
- The Y distance for weld joint BP186-001-026 is 35 mm from bottom cope hole.
- The Y distance for weld joint BP078-001-020 is 45 mm from bottom cope hole.
- The segments are located in the OBG Trial Assembly area.

The Notice of Witness Inspection (NWIT) No. is 007134. The indications are located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel. Per the contract documents, ZPMC's QC personnel are required to perform 25% UT inspection of these welds.

For indication location details, see the attached Photos (The first photo, dated 10/24/10, is included in this incident report for the purpose of confirming that ZPMC QC was previously observed by this QA, performing Ultrasonic Testing (UT) on the welds addressed in this report)

# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 3 )



## Applicable reference:

AWS D1.5-02 Section 6; Table 6.3 specifies a class "A" indication as having a rating of 10dbs and under for material thicknesses 8mm through 20mm.

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:** Subhasis Bera

**Name of individual from Contractor notified:** Peter Ferguson

**Time and method of notification:** 9:30\_10/28/10\_Email

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

**Time and method of notification:** 9:30\_10/28/10\_Email

**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, (818) 292-0659, who represents the

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# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 3 of 3 )

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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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**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>	29-Oct-2010
<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-0840	<b>Document No:</b>	05.03.06-000835

**Reference Description:** QA found 2 missed UT indications after ZPMC had tested and accepted the weld at Segment 11AE/11BE T-Rib Splices

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:** 11

**Remarks:**

During the Quality Assurance (QA) Ultrasonic Testing (UT) review of welds located on Orthotropic Box Girder (OBG) Segment 11AE to 11BE splice joint, Caltrans QA Inspector discovered the following issues:

- Two (2) longitudinal linear Class "A" rejectable indications measuring approximately 20 and 25mm in length.
- The welds are identified as BP186-001-026 and BP078-001-020 respectively.
- Material thickness is 10mm.
- The depth of the indications: approximately 6 and 8mm respectively.
- The indication dBs ratings are +7 and +9 respectively.
- The welds are Complete Joint Penetration (CJP) butt joints, joining bottom plate T-ribs on 11AE to bottom plate T-ribs on 11BE.
- The welds are designated as non Seismic Performance Critical Material (Non SPCM).
- The indications are clearly marked near the welds.
- The Y distance for weld joint BP186-001-026 is 35 mm from bottom cope hole.
- The Y distance for weld joint BP078-001-020 is 45 mm from bottom cope hole.
- The segments are located in the OBG Trial Assembly area.

The Notice of Witness Inspection (NWIT) No. is 007134. The indications are located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel. Per the contract documents, ZPMC's QC personnel are required to perform 25% UT inspection of these welds.

**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 is expected within 7 days.

**Transmitted by:** Laraine Woo            Transportation Engineer

**Attachments:** ZPMC-0840

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# NCT

( Continued Page 2 of 2 )

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**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:** 05.03.06-000835

**Subject:** NCR No. ZPMC-0840

**Dated:** 12-Nov-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000835 Rev: 00

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**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC has repaired the indications noted in the NCR and is providing NDT documentation after the repair to show the indication has been removed.

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.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000835R00;

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**Caltrans' comments:**

**Status:** CLO

**Date:** 14-Nov-2010

The proposed resolution is acceptable. This NCR is closed.

**Submitted by:** Woo, Laraine

**Date:** 14-Nov-2010

**Attachment(s):**



TRANSMITTAL LETTER

PROJECT: S.F.O.B.B.

DATE:2010-11-12

TO: ROSEMARY/ABF JV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: OBG NCR

SUBMITTED FOR YOUR APPROVAL AND SUBMITTAL TO CALTRANS

ENCLOSED WITH THIS TRANSMITTAL IS ONE COPY OF

- (01) LR: No. B-928
- (02) NCR-000878(ZPMC-0840)
- (03) B787-UT-16369R1
- (04) NCR-000880(ZPMC-0842)
- (05) B787-UT-18665R1

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT

PLAN HOLDER:

COMPANY:



DATE: 15:33  
DELIVERED 12 NOV 2010

PHONE NO.

PLAN NUMBER:N/A  
#R787-QCP-102



No. B-928

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-11-12**

**REGARDING: NCR-000878(ZPMC-0840) NCR-000880(ZPMC-0842)**

### **ZPMC-0840**

ZPMC acknowledged the indications were missed and has issued an internal NCR to address this problem. ZPMC has repaired the indications and is providing the NDT records to show the acceptance of this weld. Based on this, ZPMC is requesting closure of this NCR.

### **ZPMC-0842**

ZPMC acknowledged the indication was missed and has issued an internal NCR to address this problem. ZPMC has repaired the indication and is providing the NDT records to show the acceptance of this weld. Based on this, ZPMC is requesting closure of this NCR.

### **ATTACHMENT:**

NCR-000878(ZPMC-0840)

B787-UT-16369 R1

NCR-000880(ZPMC-0842)

B787-UT-18665 R1

A handwritten signature in black ink, appearing to be 'L. M.' or similar, written in a cursive style.

11/12/2010

**DEPARTMENT OF TRANSPORTATION**  
 DIVISION OF ENGINEERING SERVICES  
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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-000880  
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV **Date:** 28-Oct-2010  
**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0842

### Type of problem:

Welding  Concrete  Other   
 Welding  Curing  Procedural  Bridge No: 34-0006  
 Joint fit-up  Coating  Other  Component: OBG Steel Barrier W2-SB9-017  
 Procedural  Procedural  Description: QA found a missed UT indication

**Reference Description:** QA found a missed UT indication after ZPMC had tested and accepted the weld in OBG Steel Barrier W2-SB9-017

### Description of Non-Conformance:

During the Quality Assurance (QA) Ultrasonic Testing (UT) review of weld located on the Steel Barrier (SB), this QA Inspector discovered the following issue:

- One Class "A" rejectable indication measuring approximately 10 mm in length.
- The indication rating is -4dB.
- The depth of the indication was 5-6 mm
- The weld joint is identified as W2-SB9-017-081.
- This weld is a Complete Joint Penetration (CJP) splice joint, joining SB Skin plate to the Diaphragm Flange plate.
- The thickness of the steel material is 12 mm.
- The "Y" location is approximately 35 mm from the nearest end of the weld.
- The indication is clearly marked on or near the weld.
- This SB is located in sub assembly Bay # 7.

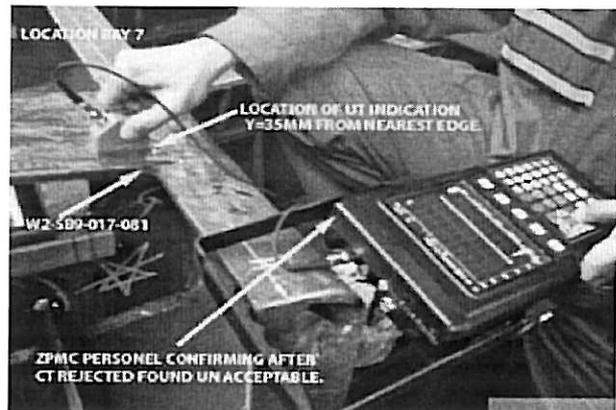
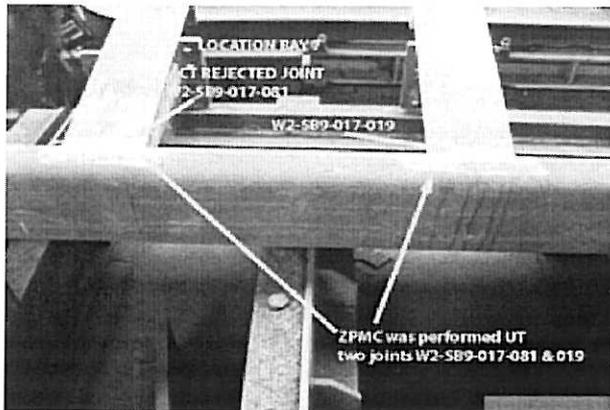
The Notice of Witness Inspection Number (NWIT) is 07136. The indication is located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 10% UT inspection of this weld.

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

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### Applicable reference:

-AWS D1.5-2002, Section 6, Table 6.3; "Specifies a class A indication as having a dbS rating of +10 and lower for weld thicknesses 8mm through 20mm."

-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:** T.Raghavendra Reddy

**Name of individual from Contractor notified:** Luo Lai Quan

**Time and method of notification:** 9:00 hours, 10/28/10, Verbal

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

**Time and method of notification:** 11:00 hours, 10/29/10, Email

**QC Inspector's Name:** Huang Min

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

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NCR-842



# REPORT OF ULTRASONIC EXAMINATION

## UT探伤报告

REPORT NO. 报告编号 B787-UT-18665R1      DATE 2010.11.06      PAGE 1 OF 1      Revision No: 0

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

ITEMS NAME: STEEL BARRIER      DRAWING NO.: W2-SB9-017      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      T-JOINT      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      AMERICA      EPOCH 4B      071565311

CALIBRATION BLOCK 试块      COUPLANT 耦合剂      MATERIAL/THICKNESS 材料厚度  
 AWS IIV BLOCK TYPE II      C.M.C      A709M-345T2-X      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
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
W2-SB9-017-081	1R1	70				40									ACC.	100%

AFTER B-WR16542

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EXAMINED BY 主探 <i>Xu Rong Gang</i> LEVEL - II SIGN / DATE      2010.11.06	REVIEWED BY 审核 <i>Tangrong shan</i> LEVEL - II SIGN / DATE      2010.11.06
质量经理 / QCM <i>Lujiaohua</i> 签字 SIGN / 日期 DATE      2010.11.06	用户CUSTOMER _____ 签字 SIGN / 日期 DATE

**DEPARTMENT OF TRANSPORTATION**  
 DIVISION OF ENGINEERING SERVICES  
 Office of Structural Materials  
 Quality Assurance and Source Inspection



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 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-000878

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

**Date:** 27-Oct-2010

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

**NCR #:** ZPMC-0840

### Type of problem:

**Welding**  **Concrete**  **Other**

**Welding**  **Curing**  **Procedural**  **Bridge No:** 34-0006

**Joint fit-up**  **Coating**  **Other**  **Component:** Segment 11AE/11BE T-Rib

**Procedural**  **Procedural**  **Description:** Missed UT Indication by QC Inspection

**Reference Description:** QA found 2 missed UT indications after ZPMC had tested and accepted the weld at Segment 11AE/11BE T-Rib Splices

### Description of Non-Conformance:

During the Quality Assurance (QA) Ultrasonic Testing (UT) review of welds located on Orthotropic Box Girder (OBG) Segment 11AE to 11BE splice joint, this QA Inspector discovered the following issues:

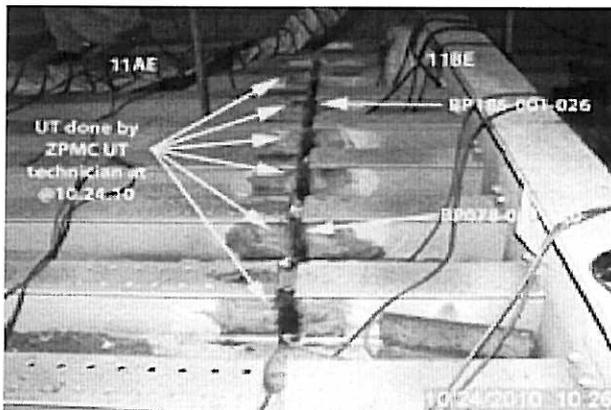
- Two (2) longitudinal linear Class "A" rejectable indications measuring approximately 20 and 25mm in length.
- The welds are identified as BP186-001-026 and BP078-001-020 respectively.
- Material thickness is 10mm.
- The depth of the indications: approximately 6 and 8mm respectively.
- The indication dBs ratings are +7 and +9 respectively.
- The welds are Complete Joint Penetration (CJP) butt joints, joining bottom plate T-ribs on 11AE to bottom plate T-ribs on 11BE.
- The welds are designated as non Seismic Performance Critical Material (Non SPCM).
- The indications are clearly marked near the welds.
- The Y distance for weld joint BP186-001-026 is 35 mm from bottom cope hole.
- The Y distance for weld joint BP078-001-020 is 45 mm from bottom cope hole.
- The segments are located in the OBG Trial Assembly area.

The Notice of Witness Inspection (NWIT) No. is 007134. The indications are located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel. Per the contract documents, ZPMC's QC personnel are required to perform 25% UT inspection of these welds.

For indication location details, see the attached Photos (The first photo, dated 10/24/10, is included in this incident report for the purpose of confirming that ZPMC QC was previously observed by this QA, performing Ultrasonic Testing (UT) on the welds addressed in this report)

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



### Applicable reference:

AWS D1.5-02 Section 6; Table 6.3 specifies a class "A" indication as having a rating of 10db and under for material thicknesses 8mm through 20mm.

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:** Subhasis Bera

**Name of individual from Contractor notified:** Peter Ferguson

**Time and method of notification:** 9:30\_10/28/10\_Email

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

**Time and method of notification:** 9:30\_10/28/10\_Email

**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, (818) 292-0659, who represents the

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 3 of 3 )

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Office of Structural Materials for your project.

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**Inspected By:** Tsang, Eric SMR

**Reviewed By:** Wahbeh, Mazen SMR

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NCR-860



# REPORT OF ULTRASONIC EXAMINATION

## UT探伤报告

REPORT NO. 报告编号 B787-UT-16369R1      DATE 2010.11.06      PAGE 1 OF 1      Revision No: 0

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

ITEMS NAME: 11AE+11BE BOTTOM PLATE T STEEL      DRAWING NO.: OBE11      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      AMERICA      EPOCH4B      51392712

CALIBRATION BLOCK 试块      COUPLANT 耦合剂      MATERIAL/THICKNESS 材料厚度  
 AWS IIW BLOCK TYPE II      C.M.C      A709M-345T2      10mm

### 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		
BP186-001-026	1R1	70				42								ACC.	100%
BP078-001-020	1R1	70				42								ACC.	100%

AFTER B-WR16324, 16325

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EXAMINED BY 主探 <i>Kuang Jian</i>	REVIEWED BY 审核 <i>Tang xing shan</i>
LEVEL - II SIGN / DATE <i>2010.11.06</i>	LEVEL - II SIGN / DATE <i>2010.11.06</i>
质量经理 / QCM <i>lujianhua</i>	用户CUSTOMER
签字 SIGN / 日期 DATE <i>2010.11.06</i>	签字 SIGN / 日期 DATE

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

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Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A


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**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION**


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**Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCS-000842**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 14-Nov-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0840**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:** 27-Oct-2010**Description of Non-Conformance:**

During the Quality Assurance (QA) Ultrasonic Testing (UT) review of welds located on Orthotropic Box Girder (OBG) Segment 11AE to 11BE splice joint, this QA Inspector discovered the following issues:

- Two (2) longitudinal linear Class "A" rejectable indications measuring approximately 20 and 25mm in length.
- The welds are identified as BP186-001-026 and BP078-001-020 respectively.
- Material thickness is 10mm.
- The depth of the indications: approximately 6 and 8mm respectively.
- The indication dBs ratings are +7 and +9 respectively.
- The welds are Complete Joint Penetration (CJP) butt joints, joining bottom plate T-ribs on 11AE to bottom plate T-ribs on 11BE.
- The welds are designated as non Seismic Performance Critical Material (Non SPCM).
- The indications are clearly marked near the welds.
- The Y distance for weld joint BP186-001-026 is 35 mm from bottom cope hole.
- The Y distance for weld joint BP078-001-020 is 45 mm from bottom cope hole.
- The segments are located in the OBG Trial Assembly area.

The Notice of Witness Inspection (NWIT) No. is 007134. The indications are located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel. Per the contract documents, ZPMC's QC personnel are required to perform 25% UT inspection of these welds.

For indication location details, see the attached Photos (The first photo, dated 10/24/10, is included in this incident report for the purpose of confirming that ZPMC QC was previously observed by this QA, performing Ultrasonic Testing (UT) on the welds addressed in this report)

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

ZPMC to repair the indications noted in the NCR and provide NDT documentation to confirm the indications removed and repaired. The inspector involved has been identified and his performance will be closely monitored. Appropriate disciplinary action will be taken should his performance is not improved in future.

