

**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-000532

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

**Date:** 13-Nov-2009

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

**NCR #:** ZPMC-0505

### Type of problem:

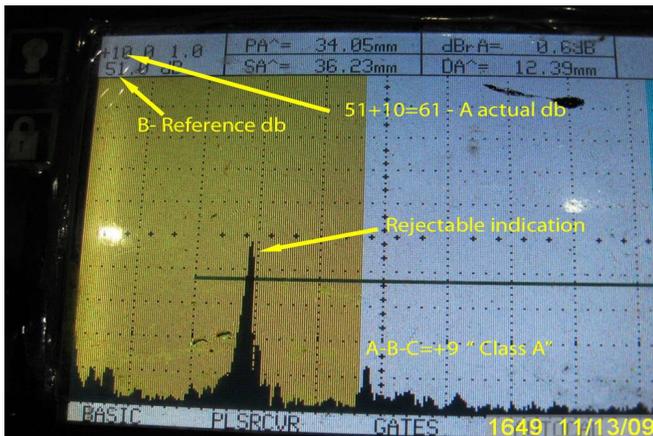
<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b> OBG Segment 11BW
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Reference Description:** Missed UT Indication by QC, Segment 11BW

### Description of Non-Conformance:

During random Ultrasonic Testing (UT) verification of the Bottom plate to Side plate weld identified as SEG067A-005 in OBG segment 11BW, Caltrans Quality Assurance (QA) Inspector discovered a total of (1) one, rejectable longitudinal indication that measured 20mm in length.

This weld has been previously tested and accepted by ZPMC Quality Control (UT) 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 D1.5/2002 Section 6.26.3.1; Requirements of Table 6.3

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Who discovered the problem:** Chandra Kumar Sudalaimuthu  
**Name of individual from Contractor notified:** Chang Song  
**Time and method of notification:** 1600 hrs, 11/13/09, Verbal  
**Name of Caltrans Engineer notified:** Ching Chao and Bill Howe  
**Time and method of notification:** 700 hrs, 11/16/09, Verbal  
**QC Inspector's Name:** Guo Xing Hui  
**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.

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<b>Inspected By:</b>	Guest,Skylar	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:** 24-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:** 05.03.06-000493

**Subject:** NCR No. ZPMC-0505

**Reference Description:** Missed UT Indication by QC, Segment 11BW

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 random Ultrasonic Testing (UT) verification of the Bottom plate to Side plate weld identified as SEG067A-005 in OBG segment 11BW, Caltrans Quality Assurance (QA) Inspector discovered a total of (1) one, rejectable longitudinal indication that measured 20mm in length.

This weld has been previously tested and accepted by ZPMC Quality Control (UT) Technicians.

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

Submit a repair procedure to the engineer for approval. Provide additional training and or equipment to the UT technician. A response for the resolution of this issue is expected within 7 days.

**Transmitted by:** Bill Howe

**Attachments:** ZPMC-0505

**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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000493

**Subject:** NCR No. ZPMC-0505

**Dated:** 18-Jan-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000515 Rev: 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** As a means of preventing future occurrences, the ABF QCM has performed refresher UT training. See attached UT training agenda and attendance roster.

As it is necessary to respond to the NCR with a proposed plan of action, ABF is doing so without all of the repair documentation at this time. As a means of preventing future occurrences, the ABF QCM has performed refresher UT training. See attached UT training agenda and attendance roster. The ABF QCM has been discussing missed UT indications with the ZPMC QCM and related NDT supervisory personnel. The ZPMC level III is in the process of assessing personnel, techniques and equipment. ABF has purchased GE Technology transducers to distribute to both ZPMC and ABF UT personnel in a cooperative effort to match the equipment of CT. These transducers will arrive to the job site approximately the end of January 10 at which time they will be put into immediate use. ZPMC requests this NCR be placed in the Approved Action Pending status category until such time that all the repair documents have been assembled and submitted.

**Submitted by:** Lawton, Steve

**Attachment(s):** ABF-NPR-000515R00;

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### Caltrans' comments:

**Status:** AAP

**Date:** 25-Jan-2010

The preventative measures taken by the QCM and the proposed resolution for closing NCR submitted by the contractor are acceptable. The NCR will be closed upon completion of the repair and review of the repair documents by the Engineer when submitted by the contractor.

**Submitted by:** Chao, Ching

**Attachment(s):**

**Date:** 25-Jan-2010

# UT Refresher Training Agenda

**Subject:** UT Techniques

**Reason for Training:** Several CT NCR's for missed UT indications

**1. Safety**

- a. Safety Glasses
- b. Gloves (if required)
- c. Knee Pads
- d. Electrical Shock

**2. Tools**

- a. Calibrated UT Machine      condition of machine
- b. Coaxial cable                      condition of cable
- c. Transducer                      condition of transducer
- d. IIW Block
- e. Scraper
- f. UT couplant

**3. Inspection Techniques**

- a. Surface preparation
- b. Location of weld                      UT from beveled plate
- c. Scanning patterns
- d. Correct choice of Angles
- e. Calibration                      per ZPMC procedure at regular intervals
- f. Scanning speed
- g. Know where your sound is at.... First leg, second leg etc...

**4. Inspection Criteria**

- a. Table 6.3 or Table 6.4
- b. Are surface inspections complete    VT and or MT should always occur before UT
- c. Scanning Levels
- d. Criteria dictated by the thinner of the two members
- e. Planar flaws



教育培训纪录

培训编号:

培训内容:	UT复习培训教程 UT Techniques
培训对象:	ZPMC UT GUYS
授课人员:	STEVE LAWTON
培训类型:	UT Refresher Training Agenda
培训时间:	2009. 12. 24. 16:30
计划培训地点:	ZPMC NDT OFFICE

人员签到:

姓名	部门	姓名	部门
戴建 dai jian	江江 Jiang Jiang		
薛宇 xue yu	黄廷 Huang Ting		
马志长 ma zhi chang	黄廷 Huang Ting		
谭善 tan shan	李黎明 Li Liming		
马建 ma jian	李黎明 Li Liming		
王福 wang fu	徐军 Xu Jun		
沈健 shen jian	李黎明 Li Liming		
黄江 Huang Jiang			
金峰 Jin Feng			
吴文 Wu Wen			
解文 jie wen			
周海周 Zhou Hai Zhou			
徐峰 Xu Feng			

## NCR PROPOSED RESOLUTION

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333 Burma Road  
Oakland CA 94607

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000493

**Subject:** NCR No. ZPMC-0505

**Dated:** 17-Mar-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000515 Rev: 01

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**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC is providing the repair report and associated NDT to show that the weld is acceptable. Based on this ZPMC requests closure of this NCR.

ZPMC is providing the repair report and associated NDT to show that the weld is acceptable. Based on this ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000515R01;

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**Caltrans' comments:**

**Status:** CLO

**Date:** 18-Mar-2010

The documentation received is sufficient to close this NCR.

**Submitted by:** Howe, Bill

**Date:** 18-Mar-2010

**Attachment(s):**



No. B-648

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-3-8**

**REGARDING: NCR-000532 (ZPMC-0505)**

With this letter of response, ZPMC requests closure of CT NCR-000532 (ZPMC-0505) what mentioned that Missed UT indications were observed by CT inspector.

- ZPMC acknowledged this problem and has issued internal NCR.
- WRR was issued reflecting to the deflection. The deflection has been removed, repaired, tested and accepted after then.
- To improve the UT method, refresh training was performed to ZPMC's UT personnel by ABF QCM.

Base on the taken actions and attached documentations, ZPMC requests closure of this NCR.

**ATTACHMENT:**

NCR-000532 (ZPMC-0505)

NCR-B-363(ZPMC-0505)

B787-UT-9598 R1

A handwritten signature in black ink, appearing to be "Jing W", is located below the attachment list.

3/8/10



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:** 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

**Subject:** NCR No. ZPMC-0505

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**Material Location:** OBG

**Remarks:**

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**Transmitted by:** Bill Howe

**Attachments:** ZPMC-0505

**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**

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Bay Area Branch

690 Walnut Ave. St. 150

Vallejo, CA 94592-1133

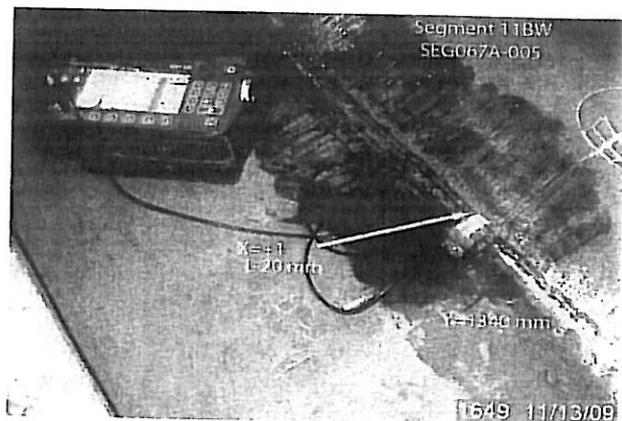
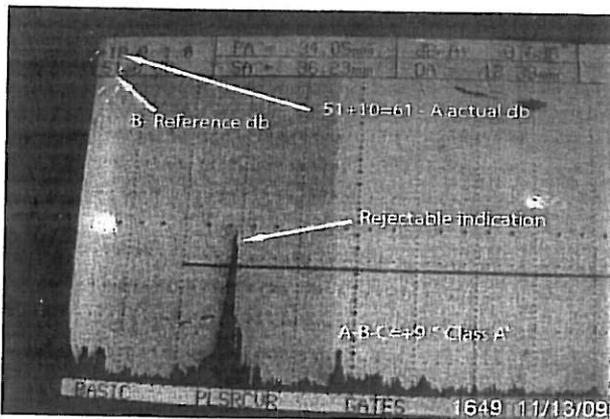
(707) 649-5453

(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-000532**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 13-Nov-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0505**Type of problem:**Welding  Concrete  Other Welding  Curing  Procedural **Bridge No:** 34-0006Joint fit-up  Coating  Other **Component:** OBG Segment 11BWProcedural  Procedural  Description:**Reference Description:** Missed UT Indication by QC, Segment 11BW**Description of Non-Conformance:**

During random Ultrasonic Testing (UT) verification of the Bottom plate to Side plate weld identified as SEG067A-005 in OBG segment 11BW, Caltrans Quality Assurance (QA) Inspector discovered a total of (1) one, rejectable longitudinal indication that measured 20mm in length.

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

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**Who discovered the problem:** Chandra Kumar Sudalaimuthu  
**Name of individual from Contractor notified:** Chang Song  
**Time and method of notification:** 1600 hrs, 11/13/09, Verbal  
**Name of Caltrans Engineer notified:** Ching Chao and Bill Howe  
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**QC Inspector's Name:** Guo Xing Hui  
**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>	Guest, Skyler	SMR
<b>Reviewed By:</b>	Wahbeh, Mazen	SMR

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WR8581

UT 9598



# 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-363(ZPMC-0505)

Item: Missing UT Indication  
名称描述: UT 漏探

Item Number:  
件号: 11BW

Drawing:  
图号: SEG067A-005

Location: bay 14  
位置: 14# 车间

Date:  
日期: 2009-01-04

### Description of Nonconformance:

#### 不符合项状态描述:

During random Ultrasonic Testing verification of the Bottom Plate to Side Plate weld identified as SEG067A-005 in OBG segment 11BW, CT inspector discovered a total one rejected longitudinal indication that measured 20mm in length. This weld has been previously tested and accepted by ZPMC Quality Control technicians.

加州检验员发现在对桥面 11BW, SEG067A-005 进行 UT 复探时发现了一处长 20mm 的纵向缺陷, 而该焊缝是经过 ZPMC 检测的。

Work By: Li Liming  
施工方: 2010.03.27

Prepared by: Zhang Junchi  
准备: 2010.1.4

Reviewed by QCE: Lin Zhenhua  
质量工程师批准: 01/04/10

- 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:

重新检测并确认返修。  
Re-inspection and repair.

Prepared by: Li Liming  
准备: 2010.03.27

Approved by QCA: \_\_\_\_\_  
质量经理批准

### Reason for Nonconformance:

#### 不符合原因:

DB 误差。  
DB error.

**Prevention of Re-occurrence:**

预防措施:

加强仪器调节, 保证仪器精度.

Enhance equipment regulation to ensure equipment accuracy.

Approved by/批准:

Li Liming  
2010.03.07

**Technical Justification for Use-As-Is/Repair:**

Attachment

Non-attachment

回用或返修的技术依据:

附件

无附件

Reviewed /批准: \_\_\_\_\_

**Verification:**

Acceptable

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



# 焊缝返修报告

版本 Rev. No.

0

## Welding Repair Report

项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No	SEG067A	报告编号 Report No.	B-WR8581
合同号 Contract No.	04-0120F4	部件名称 Items Name	11BW BOTTOM PLATE SPLICE	NDT报告编号 Report No. of NDT	B787-UT-9598
项目编号 Project No.	ZP06-787				

焊缝缺陷描述:

Description of welding discontinuity:

Rejected indication found by ultrasonic inspection is less than the maximum allowance aggregate length.

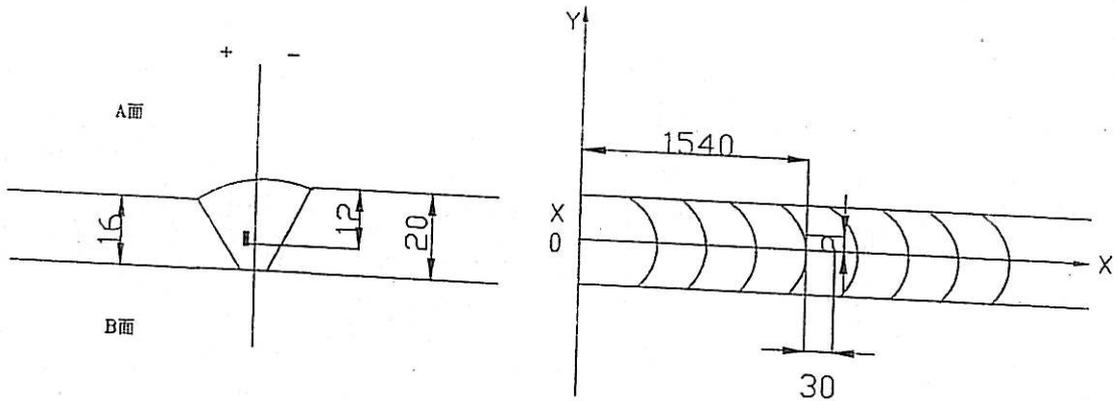
(UT探伤发现的缺陷总长度小于最大允许长度。) SEG067A-005

*Hu Jin*

检验员 (Inspector) Hu Jin\_日期(Date): 09.11.15

焊缝返修位置示意图:

Draft of welding discontinuity:



WELD NUMBER: SEG067A-005

产生原因:

Caused:

1、焊道未及时处理干净。

1. Did not clear the weld pass completely in time.

车间负责人(Foreman): *lizhigang* 日期(Date): 07.11.18

处理意见

Disposition:

1. 从缺陷距离端面较近一侧 ( $D \leq 0.65T$ ,  $D$ 为缺陷深度,  $T$ 为板厚) 采用碳刨或打磨的方法去除焊缝缺陷;
2. 参照返修焊接工艺规程 (WPS) 准备正确的接头型式, 预热和焊接;
3. 焊前对修补区域进行VT检测保证缺陷完全被清除;
4. 将修补区域打磨到与母材或邻近焊缝平齐;
5. 根据批准的车间图纸检查焊缝.

1. Gouge or grind from nearer side from metal edge ( $D \leq 0.65T$ , "D" is depth of defects, "T" is thickness of metal) to remove all defects;
2. Follow repair WPS for joint preparation, preheat, and weld deposit;
3. Verify with VT no defects remain in the weld joint prior to welding;
4. Grind the repaired area flush with base metal or the adjacent weld;
5. Check the welds according to the working drawings.

工艺: *Xu Dongkai*  
Technical engineer

07.11.18

审核: *Li Jiantua*  
Approved by

日期  
Date: 07.11.18



# 焊缝返修报告

## Welding Repair Report

版本 Rev. No  
**0**

项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No	SEG067A	报告编号 Report No.	B-WR8581
合同号 Contract No.:	04-0120F4	部件名称 Items Name	11BW BOTTOM PLATE SPLICE	NDT报告编号 Report No.of NDT	B787-UT-9598
项目编号 Project No.:	ZP06-787				

纠正措施:

Correction action to prevent re occurrence:

1. 加强焊接监控和道间清理。

1. Improve monitoring of welding and interpass cleaning.

车间负责人(Foreman): *Lizhi gong* 日期(Date): *09.11.18*

参照的WPS编号 Repair WPS No.	WPS-345-SMAW-1 G(1F)-FCM-Repair WPS-345-FCAW-1 G(1F)-FCM-Repair WPS-345-SMAW-4 G(4F)-FCM-Repair	工艺员 technologist	<i>Xu Dong kai</i> <i>09.11.18</i>
返修(碳刨)前预热温度 Preheat temperature before gouging	<i>93</i>	返修的缺陷 Description of discontinuity	<i>IF</i>
焊前处理检查 Inspection before welding	<i>All</i>	焊前预热温度 Preheat temperature before welding	<i>121</i>
最大碳刨深度 Max depth of gouging	<i>10</i>	碳刨总长 Total length of gouging	<i>130</i>
焊工 welder <i>04933P</i>	焊接类型 welding type <i>SMAW</i>	焊接位置 position	<i>4G</i>
焊接电流 Current <i>159</i>	焊接电压 Voltage <i>26.~</i>	焊接速度 Speed	<i>115</i>

返修后检查  
Inspection After repairing:

外观检查 VT result <i>All</i>	检验员 Inspector <i>Wuqing</i> <i>0712071</i>	日期 Date <i>09.12.28</i>
NDT复检 NDT result <i>All</i>	探伤员 NDT person <i>Zhouhaijun</i>	日期 Date <i>09.12.02</i>

见证:  
Witness/Review:

备注:  
Remark:



# REPORT OF ULTRASONIC EXAMINATION

## UT探伤报告

REPORT NO. 报告编号 B787-UT-9598      DATE 2009.11.15      PAGE 1 OF 1      Revision No: 0

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

ITEMS NAME: OBG 11CE BOTTOM PLATE SPLICE      DRAWING NO.: SEG067A      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>, 2009

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-345T2-X      16/20mm

### 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	Depth from Surface 距表面深度	From X 距X	From Y 距Y			
SEG067A-005	1	70	A	1	43	33	1	+9	30	36	12	+2	1540	REJ.	100%	
SEG067A-011	1	70	A	1	43	33	2	+8	30	49	16	-7	400	REJ.	100%	
	2	70	A	1	43	33	2	+8	40	43	14	+7	4790	REJ.	100%	
SEG067A-012	1	70	A	1	43	33	2	+8	30	44	14	-12	110	REJ.	100%	
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EXAMINED BY 主探 Huang jin <i>Huang jin</i> 2009.11.15 LEVEL - II SIGN / DATE	REVIEWED BY 审核 Wu chao <i>Wu chao</i> 2009.11.15 LEVEL - II SIGN / DATE
质量经理 / QCM _____ 签字 SIGN / 日期 DATE	用户 CUSTOMER _____ 签字 SIGN / 日期 DATE



# REPORT OF ULTRASONIC EXAMINATION

## UT探伤报告

REPORT NO. 报告编号 B787-UT-9598R1      DATE 2009.12.02      PAGE 1 OF 1      Revision No: 0

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

ITEMS NAME: OBG 11CE BOTTOM PLATE SPLICE      DRAWING NO.: SEG067A      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 FCAW      BUTT      Dec. 28<sup>ST</sup>, 2009

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-345T2-X      16/20mm

### 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
SEG067A-005	1R1	70				32									ACC.	100%
SEG067A-011	1R1	70				32									ACC.	100%
	2R1	70				32									ACC.	100%
SEG067A-012	1R1	70				32									ACC.	100%

AFTER B-WR8581-8583

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EXAMINED BY 主探 <i>Zhou Hai Jun</i> 2009.12.02 LEVEL - II SIGN / DATE	REVIEWED BY 审核 <i>Huang jin</i> 2009.12.02 LEVEL - II SIGN / DATE
质量经理 / QCM _____ 签字 SIGN / 日期 DATE	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



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-000608**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 13-Apr-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0505**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:** 13-Nov-2009**Description of Non-Conformance:**

During random Ultrasonic Testing (UT) verification of the Bottom plate to Side plate weld identified as SEG067A-005 in OBG segment 11BW, Caltrans Quality Assurance (QA) Inspector discovered a total of (1) one, rejectable longitudinal indication that measured 20mm in length.

This weld has been previously tested and accepted by ZPMC Quality Control (UT) Technicians.

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

Repair said indications and perform NDT required to verify weld quality

**Corrective action taken:**

Contractor submitted internal WRR along with subsequent NDT records 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 152.1675.3703, who represents the Office of Structural Materials for your project.

**Inspected By:** Simonis, Jim

Quality Assurance Inspector

**Reviewed By:** Wahbeh, Mazen

QA Reviewer