

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-000543**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 18-Dec-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0516**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: OBG Segment 8BW
Procedural	Procedural	Description:	

Reference Description: Missed UT Indication by QC, Segment 8BW**Description of Non-Conformance:**

During the Quality Assurance Ultrasonic Testing (UT) review of the internal components of OBG Segment 8BW, this Quality Assurance Inspector (QA) discovered the following issues:

-A total of one (1) UT Class "A" indication in the complete joint penetration (CJP) splice weld of side plate SP103A to SP435A that measured a total of 15mm in length. The weld is designation is SEG045A-001.

-OBG Segment 8BW is located in the segment repair yard north of the blast shop.

-The NDT notification sheet number is 004869. The indication is located inside of the area previously tested and accepted by ZPMC Quality Control (QC) personnel.

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 Section 6.26.3.1; "Welds that are subject to UT in addition to visual inspection shall be acceptable if they meet the following requirements:...(1) Welds subject to tensile stress under any condition of loading shall conform to the requirements of Table 6.3...(2) Welds subject to compressive stress shall conform to the requirements of Table 6.4."

AWS D1.5-02 Section 6; Table 6.3

Who discovered the problem: Subhasis Bera**Name of individual from Contractor notified:** Peter Shaw

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Time and method of notification: 930 hours, 12-18-09, Verbal

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 1430 hours, 12-18-09, Verbal

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 Eric Tsang, 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Guest,Skylar	SMR
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Reviewed By:	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: 05.03.06-000504

Subject: NCR No. ZPMC-0516

Reference Description: Missed UT Indication by QC, Segment 8BW

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:** 08

Remarks:

During the Quality Assurance Ultrasonic Testing (UT) review of the internal components of OBG Segment 8BW, this Quality Assurance Inspector (QA) discovered the following issues:

- A total of one (1) UT Class "A" indication in the complete joint penetration (CJP) splice weld of side plate SP103A to SP435A that measured a total of 15mm in length. The weld is designation is SEG045A-001.
- OBG Segment 8BW is located in the segment repair yard north of the blast shop.
- The NDT notification sheet number is 004869. The indication is located inside of the area previously tested and accepted by ZPMC Quality Control (QC) personnel.

Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval. Ensure that the ZPMC UT technicians have training and equipment necessary to perform UT inspection so as not to miss class A indications. A response for the resolution of this issue is expected within 7 days.

Transmitted by: Bill Howe Sr. Transportation Engineer

Attachments: ZPMC-0516

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: 05.03.06-000504

Subject: NCR No. ZPMC-0516

Dated: 08-Feb-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000556 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: The ABFJV QCM has instituted training sessions for ZPMC inspectors. In addition to training, ABF has purchased new equipment to standardize both ABF and ZPMC with the equipment used by Caltrans.

ZPMC and ABFJV have taken steps to reduce the number of both MT and UT missed indications. The ABFJV QCM has instituted training sessions for ZPMC inspectors to reinforce key points of performing UT and MT, the most recent was held in December 2009. The ZPMC Level III has conducted training with the inspectors as well. In addition to training, ABF has purchased new equipment to standardize both ABF and ZPMC with the equipment used by Caltrans. Examples of this are the powder bulbs with magnetic caps, and the same transducers used by Caltrans. Documents of the acceptable NDT will be provided when they are available at a later date. Based on this ZPMC requests that this NCR be approved with actions pending.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000556R00;

Caltrans' comments:

Status: AAP

Date: 08-Feb-2010

AAP approved.

Submitted by: Howe, Bill

Date: 08-Feb-2010

Attachment(s):

Tool Box Training Agenda

Subject: MT Techniques

Reason for Training: Several CT NCR's of indications missed during ZPMC NDT inspection.

1. Safety

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

2. Tools

- a. Lighting
- b. MT Powder. Red for ambient, Yellow for High Temperature.
- c. Powder Bulb
- d. Powder Blower
- e. MT Yoke Adequate working condition
- f. Pie Gage

3. Inspection Techniques

- a. Lighting
- b. Position of body (distance of eyes to the weld surface)
- c. Application of Powder removal of Powder
- d. Continuous method
- e. Two directions
- f. Both sides of weld
- g. Clean and dry surface



教育培训纪录

培训编号: MT-22-Dec-09

培训内容:	MT Techniques
培训对象:	项目质检
授课人员:	Steve Lawton
培训类型:	内部培训
培训时间:	22-Dec-09 5:00 PM
计划培训地点:	ZPMC QC office

人员签到:

姓名	部门	姓名	部门
孙力杰 Sunlei	钢桥	狄坤伦 Di Kunlun	钢桥
孙广强 Sun Guangqiang	钢桥	蔡新鑫 Cai Xinxin	钢桥
徐海 Xu Hai	钢桥	傅春强 Fu Chunqiang	钢桥
卞源源 Bian Yuanyuan	钢桥	顾云武 Gu Yunwu	钢桥
许兵 Xu Bing	钢桥	金建廷 Jin Jianting	钢桥 MT
李振华 Li Zhenhua	钢桥	常方杰 Chang Fangjie	钢桥
李坤阳 Li Xunyang	QA	袁俊 Yuan Jun	钢桥
王威 Wang Wei	钢桥	刘章敏 Liu Zhangmin	
孙林 Sun Lin	钢桥 MT	徐华祥 Xu Huaxiang	钢桥
丁阿成 Ding A Cheng	钢桥 MT	周东超 Zhou Dongchao	钢桥
贺佳佳 He Jiajia	钢桥	赵成功 Zhao Chenggong	钢桥
黄瑞 Huang Rui	钢桥	孙广强 Sun Guangqiang	钢桥
李黎明 Li Liming	钢桥	徐辉 Xu Hui	钢桥
李昌涛 Li Changtao		刘宏斌 Liu Hongbin	



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
戴斌 Dai Gouf sheng	江江 Jiang Jiang		
薛宇 Xuellamang	黄廷 Huang Ting		
马志长 Majzhang	黄廷 Huang Ting		
谭善 Tanxingshan	李黎明 Li Liming		
马健 Ma Jian	李黎明 Li Liming		
王福 Wangfu	徐坤 Xu Kun		
沈健 Sheng Jian	李黎明 Li Liming		
黄宇 Huang Yu			
金峰 Jin Feng			
吴文 Wu Wen			
解坤 Jie Kun			
周海周 Zhou Hai Zhou			
徐坤 Xu Kun			

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

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000504

Subject: NCR No. ZPMC-0516

Dated: 24-Feb-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000556 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: Two non conformance reports were issued for the same incident. ZPMC-0516 is a duplicate of ZPMC-0514. ABFJV and ZPMC request that ZPMC-0516 be rescinded.

Two non conformance reports were issued for the same incident. ZPMC-0516 is a duplicate of ZPMC-0514. ABFJV and ZPMC request that ZPMC-0516 be rescinded.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000556R01

Caltrans' comments:

Status: CLO

Date: 24-Feb-2010

This NCR is closed.

Submitted by: Howe, Bill

Date: 24-Feb-2010

Attachment(s):

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000504

Subject: NCR No. ZPMC-0516

Dated: 15-Mar-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000556 **Rev:** 02

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has repaired the weld in question and is providing the repair documents as well as NDT to show that weld is now acceptable. Based on this ZPMC requests closure of this NCR.

ZPMC has repaired the weld in question and is providing the repair documents as well as NDT to show that weld is now acceptable. In addition, ZPMC has written its own internal NCR to document the non conformance. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000556R02;

Caltrans' comments:

Status: CLO

Date: 15-Mar-2010

Non-Conformance ZPMC-0516 was closed in response to NPR-0556R01 dated February 24, 2010.

Submitted by: Wright, Doug

Attachment(s):

Date: 15-Mar-2010



No. B-673

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-3-15

REGARDING: NCR-000541(ZPMC-0514) NCR-000543(ZPMC-0516)

ZPMC acknowledged this problem and has issued internal NCR to warn the same cases. Repair has been completed. ZPMC is providing WRRs and NDT records show the welds are acceptable after repair. Based on this, ZPMC requests closure of this NCR.

ATTACHMENT:

NCR-000541(ZPMC-0514)

NCR-000543(ZPMC-0516)

B-WR9615

B787-UT-10506 R1

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

3/15/10

WR9615 10506

施



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-356(ZPMC-0514) / 2PMC-566	
Item: missed UT indication 名称描述: UT 漏检	Item Number: 件号: N/A	Drawing: 图号: N/A	
Location: outside yard 位置: 外场		Date: 日期: 2009-12-31	

Description of Nonconformance:

不符合项状态描述:

The CT QA inspector performed 10% verification of UT on the weld between side plate to corner assembly located at segment 8bw near panel point 65(PP65), The QA inspector discovered I class A non-conforming indication measuring approximately 15mm in length.

加州检验员在进行 10% UT 检测的时候发现了在斜底板与角连接板 8BW, QA 发现了一个 A 级缺陷监测大约长度 15 毫米。

漏检长度大约为 15 毫米。

焊缝编号为 SEG045A-001。

位置在 SP103A 与角单元 CA49A。

该焊缝为 CJP。

8BW 当时在冲砂车间外部。

此事情焊工 004869 进行见证。

此 UT 是被 B205 检测出来的。

Work By: Liliming 10.03.14 Prepared by: Liliming 09.12.31 Reviewed by QCE: Luyankun

施工方: 准备: 质量工程师批准:

Drawing Error 图纸错误
 Material Defect 材料缺陷
 Fabrication Error 制作错误
 Other 其他原因 12/31/09

Disposition: Use as is 回用 Repair 返修 Reject 拒收

处理措施:

Recommendation:

建议:

确认, 根据报告进行返修
Repair according to report.

Prepared by: Liliming 10.03.14 Approved by QCA: _____

准备 质量经理批准

Reason for Nonconformance:

不符合原因:

A级缺陷, UT漏检.

UT discover class A defect.

Prevention of Re-occurrence:

预防措施:

加强UT人员的责任心.

Improve UT responsibility.

Approved by/批准:

L. Liming 10.3.11

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:



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

Dear: Mr. Charles Kanapicki
 Attention: Mr. Thomas Nilsson Project/Fabrication Manager
 Subject: NCR No. ZPMC-0514

04-SF-80-13.2 / 13.9
 Job Name: SAS Superstructure
 Document No: 05.03.06-000502

Reference Description: Missed UT Indication by QC, Segment 8BW

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: 08

Remarks:

The Caltrans Quality Assurance (QA) Inspector performed 10% verification of Ultrasonic Testing (UT) on the weld between Side Plate to Corner Assembly located at Segment 8BW near panel point 65 (PP65). The QA inspector discovered one (1) class "A" non-conforming indication measuring approximately 15 mm in length.

- The non-conforming indication measured approximately 15mm in length.
- The weld is identified as: SEG045A-001.
- The weld is located between Side Plate 92103A to Corner Assembly CA49A.
- The weld is a Complete Joint Penetration (CJP) Butt Joint.
- The OBG Segment 8BW is located at outside the Paint Shop.
- The Notice of Witness Inspection Number (NWIT) is 904869.
- A TL-6027 UT report was written by QA inspector B205 on this date.

Action Required and/or Action Taken:

Provide a repair procedure to the engineer for approval. A response for the resolution of this issue is expected within 7 days.

Transmitted by: Bill Howe

Attachments: ZPMC-0514

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

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-000541**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 18-Dec-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0514**Type of problem:**Welding Concrete Other Welding Curing Procedural Joint fit-up Coating Other Procedural Procedural Description: **Bridge No:** 34-0006**Component:** OBG Segment 8BW**Reference Description:** Missed UT Indication by QC, Segment 8BW**Description of Non-Conformance:**

The Caltrans Quality Assurance (QA) Inspector performed 10% verification of Ultrasonic Testing (UT) on the weld between Side Plate to Corner Assembly located at Segment 8BW near panel point 65 (PP65). The QA inspector discovered one (1) class "A" non-conforming indication measuring approximately 15 mm in length.

-The non-conforming indication measured approximately 15mm in length.

-The weld is identified as: SEG045A-001.

-The weld is located between Side Plate SP103A to Corner Assembly CA49A.

-The weld is a Complete Joint Penetration (CJP) Butt Joint.

-The OBG Segment 8BW is located at outside the Paint Shop.

-The Notice of Witness Inspection Number (NWIT) is 004869.

-A TL-6027 UT report was written by QA inspector B205 on this date.

Applicable reference:

AWS D1.5-02 Section 6; Table 6.3

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 Shaw**Time and method of notification:** 930 hours, 12-18-09, Verbal**Name of Caltrans Engineer notified:** Bill Howe

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Time and method of notification: 1030 hours, 12-18-09, Verbal

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 Eric Tsang, 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Guest, Skyler

SMR

Reviewed By: Wahbeh, Mazen

SMR



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
Subject: NCR No. ZPMC-0516

Job Name: SAS Superstructure
Document No: 05.03.06-000504

Reference Description: Missed UT Indication by QC, Segment 8BW

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

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Material Location: OBG

Lift: 08

Remarks:

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Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval. Ensure that the ZPMC UT technicians have training and equipment necessary to perform UT inspection so as not to miss class A indications. A response for the resolution of this issue is expected within 7 days.

Transmitted by: Bill Howe

Attachments: ZPMC-0516

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
 Office of Structural Materials
 Quality Assurance and Source Inspection



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.25B

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

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P.R. China**Report No:** NCR-000543**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 18-Dec-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0516**Type of problem:**

Welding Concrete Other
 Welding Curing Procedural **Bridge No:** 34-0006
 Joint fit-up Coating Other **Component:** OBG Segment 8BW
 Procedural Procedural **Description:**

Reference Description: Missed UT Indication by QC, Segment 8BW**Description of Non-Conformance:**

During the Quality Assurance Ultrasonic Testing (UT) review of the internal components of OBG Segment 8BW, this Quality Assurance Inspector (QA) discovered the following issues:

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AWS D1.5 Section 6.26.3.1; "Welds that are subject to UT in addition to visual inspection shall be acceptable if they meet the following requirements:...(1) Welds subject to tensile stress under any condition of loading shall conform to the requirements of Table 6.3...(2) Welds subject to compressive stress shall conform to the requirements of Table 6.4."

AWS D1.5-02 Section 6; Table 6.3

Who discovered the problem: Subhasis Bera**Name of individual from Contractor notified:** Peter Shaw

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Time and method of notification: 930 hours, 12-18-09, Verbal

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 1430 hours, 12-18-09, Verbal

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 Eric Tsang, 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Guest, Skyler

SMR

Reviewed By: Wahbeh, Mazen

SMR



焊缝返修报告

版本 Rev. No.

Welding Repair Report

0

项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No	SEG045A	报告编号 Report No.	B-WR9615
合同号 Contract No.	04-0120F4	部件名称 Items Name	CORNER ASSEMBLY SIDE PLATE	NDT报告编号 Report No. of NDT	B787-UT-10506
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述:

Description of welding discontinuity:

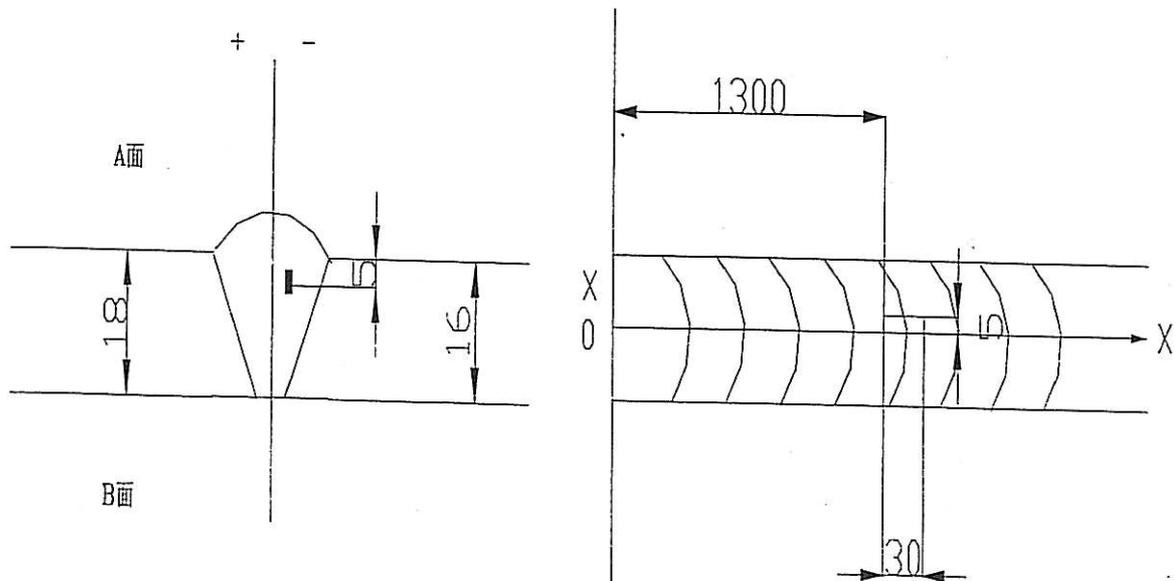
Rejected indication found by ultrasonic inspection is less than the maximum allowance aggregate length.

(UT探伤发现的缺陷总长度小于最大允许长度。) SEG045A-001

检验员 (Inspector) *Huang Jing* 日期(Date): 09.12.29

焊缝返修位置示意图:

Draft of welding discontinuity:



WELD NUMBER: SEG045A-001

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): *Lizhiqiang* 日期(Date): 12.30

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: *Hexiaolin*
Technical engineer

审核:
Approved by

日期
Date

12.30



焊缝返修报告

Welding Repair Report

版本 Rev. No.

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合同号 Contract No.:	04-0120F4	部件名称 Items Name	CORNER ASSEMBLY SIDE PLATE	NDT报告编号 Report No. of NDT	B787-UT-10506
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): *Lizhiqiang* 日期(Date): *12-30*

参照的WPS编号 Repair WPS No.	WPS-345-SMAW-1 G(1F)-Repair WPS-345-FCAW-1 G(1F)-Repair-1 WPS-345-SMAW-4 G(4F)-Repair	工艺员 technologist	Hexiaolin 12-30
返修(碳刨)前预热温度 Preheat temperature before gouging	<i>122</i>	返修的缺陷 Description of discontinuity	<i>2F</i>
焊前处理检查 Inspection before welding	<i>Acc</i>	焊前预热温度 Preheat temperature before welding	<i>125</i>
最大碳刨深度 Max. depth of gouging	<i>7</i>	碳刨总长 Total length of gouging	<i>200</i>
焊工 welder <i>044772</i>	焊接类型 welding type <i>SMAW</i>	焊接位置 position <i>16</i>	
焊接电流 Current <i>182</i>	焊接电压 Voltage <i>245</i>	焊接速度 Speed <i>188</i>	
返修后检查 Inspection After repairing:			
外观检查 VT result <i>Acc</i>	检验员 Inspector <i>Zhang Honghai</i> <i>0702101</i>	日期 Date <i>2010.3.9</i>	
NDT复检 NDT result <i>Acc</i>	探伤员 NDT person <i>Huang Jing</i>	日期 Date <i>10.3.9</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-10506R1-2 DATE 2010.03.09 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: COENER ASSEMBLY FLOOR BEAM SPLICE DRAWING NO.: 8BW 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. 28ST, 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 IIV BLOCK TYPE II C.M.C A709M-345T2-X 30/20mm

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			
SEG045A-001	1R1	70				32									ACC.	100%

AFTER B-WR9615

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EXAMINED BY 主探 Wang Jing 2010.03.09 REVIEWED BY 审核 Wu Hao 2010.03.09
 LEVEL - I SIGN / DATE LEVEL - II SIGN / DATE

质量经理 / QCM 用户 CUSTOMER
 签字 SIGN / 日期 DATE 签字 SIGN / 日期 DATE



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 B787-UT-10506 DATE 2009.12.29 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: COENER ASSEMBLY FLOOR BEAM SPLICE DRAWING NO.: 8BW CALTRANS CONTRACT NO.: 04-0120F4
 部件名称 图号 加州工程编号

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 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 T-JOINT Dec. 28ST, 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-345T2-X 18/16/20/30/25/14mm

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			
SEG045A-001	1	70	A	2	42	32	4	+6	30	71	5	+5	1300	REJ.	100%	
SSD13A-PP67-131	1	70	A	1	43	32	1	+10	30	33	11	0	500	REJ.	100%	
SEG045B-023	1	70	A	2	42	32	4	+6	30	76	4	-8	650	REJ.	100%	
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EXAMINED BY 主探
Wang Hong 2009.12.29
 LEVEL - II SIGN / DATE

REVIEWED BY 审核
Wu Chao 2009.12.29
 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
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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-000529**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 11-Mar-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0516**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component:
Procedural	Procedural	Description:	

Date the Non-Conformance Report was written: 18-Dec-2009**Description of Non-Conformance:**

During the Quality Assurance Ultrasonic Testing (UT) review of the internal components of OBG Segment 8BW, this Quality Assurance Inspector (QA) discovered the following issues:

-A total of one (1) UT Class "A" indication in the complete joint penetration (CJP) splice weld of side plate SP103A to SP435A that measured a total of 15mm in length. The weld is designation is SEG045A-001.

-OBG Segment 8BW is located in the segment repair yard north of the blast shop.

-The NDT notification sheet number is 004869. The indication is located inside of the area previously tested and accepted by ZPMC Quality Control (QC) personnel.

Contractor's proposal to correct the problem:

N/A

Corrective action taken:

Report is a duplicate of ZPMC NCR 514. Issue will continue to be tracked by NCR 514.

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