

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, China**Report No:** NCR-000994**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 07-Apr-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0952**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Lift 13CW RS Stiffener to Floorbeam Connections
Procedural	Procedural	Description:	

Reference Description: Missed UT indications discovered by QA for RS Stiffener to Floorbeam connections on Lift 13CW

Description of Non-Conformance:

During the Quality Assurance Ultrasonic Testing (UT) verification of weld located on OBG Segment 13CW, this Quality Assurance Inspector (QA) discovered the following issues:

- A total of two (2) Class "A" indications measuring approximately 20-25mm in length.
- ZPMC QC personnel have tested and accepted a weld that did not meet the Visual Testing (VT) requirements of the contract documents.

- The indications detail are given as below;

1. The Indication rating is +4dB and length approximately 20mm.

The Thickness of the plate is 22mm and depth of the indication approximately 16mm.

The indication is located on the weld joint identified as SEG3015H-276.

The "Y" location for this indication is approximately 145mm from top edge of this RS Stiffener.

The weld is a Complete Joint Penetration (CJP) "T" weld joint joining Side Plate RS Stiffener to Floor Beam (FB3224A) at panel point 123.

This weld did not meet the Visual Testing (VT) requirements of the contract documents due to incomplete welding at the cope hole.

2. The Indication rating is +7dB and length approximately 25mm.

The Thickness of the plate is 22mm and depth of the indication approximately 19mm.

The indication is located on the weld joint identified as SEG3015K-224.

The "Y" location for this indication is approximately 35mm from top edge of this RS Stiffener.

The weld is a Complete Joint Penetration (CJP) "T" weld joint joining Side Plate RS Stiffener to Floor Beam (FB3220A) at panel point 122.5.

This weld did not meet the Visual Testing (VT) requirements of the contract documents due to visible slag and

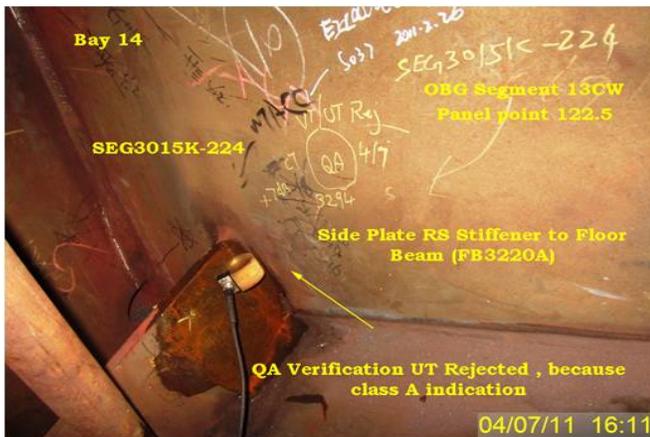
QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)

Arc Strikes present on the accepted weld.

- The indications are clearly marked by QA near the weld.
- OBG Segment 13CW is located in West Side of fabrication Bay 14.

The Notice of Witness Inspection Number (NWIT) is 008757. 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 100% UT inspection of this weld.



Applicable reference:

AWS D1.5-2002, Section 6, Table 6.3. Specifies a class 'A' indication as having a db rating of +8 and lower for weld thicknesses greater than 20 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."

AWS D1.5-02 Section 6.6.2 "The Contractor shall be responsible for visual inspection and NDT described in 6.7 and necessary correction of all deficiencies in materials and workmanship in conformance with the requirements of Clause 3 and 6.26 and as specified elsewhere in the contract documents."

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

AWS D1.5-02 Section 3.1.4 “The size and lengths of welds shall be no less than those specified by design requirements and detailed drawings except as allowed by 6.26.1.7”.

AWS D1.5-02 Section 3.2.5 “Radii of beam copes and weld access holes shall provide a smooth transition...”.

Who discovered the problem: Vibin Kumar and Anand Upadhye

Name of individual from Contractor notified: Peter Shaw

Time and method of notification: 14:00 hours 04/07/11 Verbal

Name of Caltrans Engineer notified: Sean Eagen

Time and method of notification: 18:00 hours 04/08/11 Email

QC Inspector's Name: Mr. Wang Lu (Testino)

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.

Inspected By:	Devey,Jim	SMR
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Reviewed By:	Wahbeh,Mazen	SMR
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DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
666 Feng Bin Road Room 708, Changxing Island
Shanghai 201913 PR China
Tel: 021-56856666 ext 207061 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 13-Apr-2011

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: 05.03.06-000951

Subject: NCR No. ZPMC-0952

Reference Description: Missed UT indications discovered by QA for RS Stiffener to Floorbeam connections on Lift 13CW

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:** 13

Remarks:

During the Quality Assurance Ultrasonic Testing (UT) verification of weld located on OBG Segment 13CW, this Quality Assurance Inspector (QA) discovered the following issues:

- A total of two (2) Class "A" indications measuring approximately 20-25mm in length.
- ZPMC QC personnel have tested and accepted a weld that did not meet the Visual Testing (VT) requirements of the contract documents.
- The indications detail are given as below;
 1. The Indication rating is +4dB and length approximately 20mm.
The Thickness of the plate is 22mm and depth of the indication approximately 16mm.
The indication is located on the weld joint identified as SEG3015H-276.
The "Y" location for this indication is approximately 145mm from top edge of this RS Stiffener.
The weld is a Complete Joint Penetration (CJP) "T" weld joint joining Side Plate RS Stiffener to Floor Beam (FB3224A) at panel point 123.
This weld did not meet the Visual Testing (VT) requirements of the contract documents due to incomplete welding at the cope hole.
 2. The Indication rating is +7dB and length approximately 25mm.
The Thickness of the plate is 22mm and depth of the indication approximately 19mm.
The indication is located on the weld joint identified as SEG3015K-224.
The "Y" location for this indication is approximately 35mm from top edge of this RS Stiffener.
The weld is a Complete Joint Penetration (CJP) "T" weld joint joining Side Plate RS Stiffener to Floor Beam (FB3220A) at panel point 122.5.
This weld did not meet the Visual Testing (VT) requirements of the contract documents due to visible slag and Arc Strikes present on the accepted weld.

NCT

(Continued Page 2 of 2)

- The indications are clearly marked by QA near the weld.
- OBG Segment 13CW is located in West Side of fabrication Bay 14.

The Notice of Witness Inspection Number (NWIT) is 008757. 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 100% UT inspection of this weld.

Action Required and/or Action Taken:

Propose a resolution for this non-conformance and provide documentation that the deficiency has been brought into compliance with the contract requirements. Propose a resolution that addresses the apparent failure of Quality Control to identify the indication. Additionally, provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences.

The response for the resolution of this issue is requested within 7 days.

Transmitted by: Sean Eagen Transportation Engineer

Attachments: ZPMC-0952

cc: Rick Morrow, Peter Siegenthaler, Stanley Ku, Brian Boal, 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: 05.03.06-000951

Subject: NCR No. ZPMC-0952

Dated: 18-May-2011

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000955 Rev: 00

Contractor's Proposed Resolution:

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

ZPMC acknowledge this problem and has issued an internal NCR. ZPMC has repaired the indications noted in the NCR and providing WR & NDT documentation after the repair to show the indication has been removed. Based on these actions, ZPMC requests closure of this NCR.

Submitted by: Lawton, Steve

Attachment(s): ABF-NPR-000955R00;

Caltrans' comments:

Status: CLO

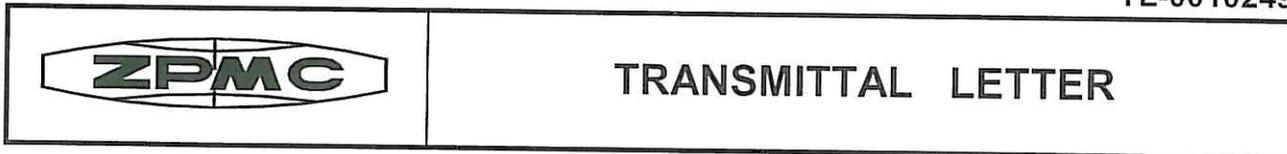
Date: 19-May-2011

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0952 is closed.

Submitted by: Eagen, Sean

Attachment(s):

Date: 19-May-2011



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

DATE:2011-05-18

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-996

(02) NCR-000994(ZPMC-0952)

B-WR20641 R0

B-WR20710 R0

B787-UT-20730 R1

B787-UT-20764 R1

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT

PLAN HOLDER:

Love

DATE: RECEIVED 18 MAY 2011

15:09

COMPANY:



PHONE NO.

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



No. B-996

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2011-05-18

REGARDING: NCR-000994(ZPMC-0952)

ZPMC acknowledged this problem and has issued an internal NCR. ZPMC has repaired the indications noted in the NCR and is providing WR & NDT documentation after the repair to show the indication has been removed. Based on these actions, ZPMC requests closure of this NCR.

ATTACHMENT:

NCR-000994(ZPMC-0952)

B-WR20641 R0

B-WR20710 R0

B787-UT-20730 R1

B787-UT-20764 R1

Zhang Wei



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	SEG3015	报告编号 Report No.	B-WR20641
合同号 Contract No.	04-0120F4	部件名称 Items Name	13CW FLOOR BEAM AND -RIB	NDT报告编号 Report No.of NDT	B787-UT-20730
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述：(普通UT探伤发现的缺陷长度小于最大允许长度)

(Description of welding discontinuity): Rejected indication found by ultrasonic inspection is less than the maximum allowance aggregate length.

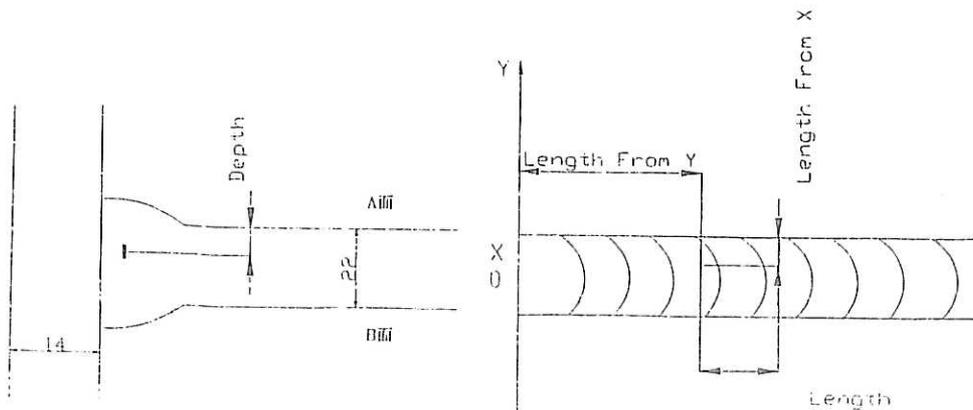
焊缝编号为：SEG3015H-271, SEG3015K-224

检验员 (Inspector) :Fu Tiejian (Date) : 2011.04.08

Fu Tiejian

焊缝返修位置示意图：

Draft of welding discontinuity:



Please see the detail data from UT report!

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): *Murui* 日期(Date): 2011.04.08

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. 将修补区域打磨到与母材或邻近焊缝平齐;
 4. 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. Grind the repaired area flush with base metal or the adjacent weld;
 4. Check the welds according to the working drawings.

工艺: *Min Tiefong*
Technical engineer

审核: *Luo Jianhua*
Approved by

日期
Date

2011.04.08



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	SEG3015	报告编号 Report No.	B-WR20641
合同号 Contract No.:	04-0120F4	部件名称 Items Name	13CW FLOOR BEAM AN	NDT报告编号 Report No.of NDT	B787-UT-20730
项目编号 Project No.:	ZP06-787		D I-RIB		

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): *MARIN* 日期(Date): 2011.04.08

参照的WPS编号 Repair WPS No.	<input type="checkbox"/> WPS-345-SMAW-1G(1F)- Repair <input type="checkbox"/> WPS-345-FCAW-1G(1F)- Repair-1 <input type="checkbox"/> WPS-345-SMAW-2G(2F)-Repair <input type="checkbox"/> WPS-345-FCAW-2G(2F)-Repair-1 <input type="checkbox"/> WPS-345-SMAW-3G(3F)- Repair <input type="checkbox"/> WPS-345-SMAW-4G(4F)- Repair <input type="checkbox"/> WPS-345-SMAW-1G(1F)-FCM-Repair <input type="checkbox"/> WPS-345-SMAW-2G(2F)-FCM-Repair <input checked="" type="checkbox"/> WPS-345-SMAW-3G(3F)-FCM-Repair <input type="checkbox"/> WPS-345-SMAW-4G(4F)-FCM-Repair <input type="checkbox"/> WPS-345-FCAW-3G(3F)-Repair	工艺员 technologist	<i>Min Tiejong</i>
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返修(碳刨)前预热温度 Preheat temperature before gouging	120℃	返修的缺陷 Description of discontinuity	17
焊前处理检查 Inspection before welding	A ^o	焊前预热温度 Preheat temperature before welding	120℃
最大碳刨深度 Max. depth of gouging	7	碳刨总长 Total length of gouging	150

焊工 welder <i>066019</i>	焊接类型 welding type <i>SMAW</i>	焊接位置 position <i>3G</i>
焊接电流 Current <i>140</i>	焊接电压 Voltage <i>25.2</i>	焊接速度 Speed <i>120</i>

返修后检查
Inspection After repairing:

外观检查 VT result <i>vt. Ace</i>	检验员 Inspector <i>Sun Tianhang</i>	日期 Date <i>2011.05.11</i>
NDT复检 NDT result <i>Ace</i>	探伤员 NDT person <i>Fu Tiejian</i>	日期 Date <i>2011.05.18</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-20730R1 DATE 2010.05.18 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: 13CW FLOOR BEAM AND I-RIB 部件名称	DRAWING NO.: SEG3015 图号	CALTRANS CONTRACT NO.: 04-0120F4 加州工程编号
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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
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WELDING PROCESS 焊接方法 SMAW	JOINT TYPE 焊缝类型 T-JOINT	CALIBRATION DUE DATE 仪器校正有效期 Dec. 28 ST , 2011
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EQUIPMENT 设备 UT SCOPE	MANUFACTURER 制造商 PANAMETRICS	MODEL NO. 样式编号 EPOCH 4B	SERIAL NO. 序列编号 071565311
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CALIBRATION BLOCK 试块 AWS IIV BLOCK TYPE II	COUPLANT 耦合剂 C.M.C	MATERIAL/THICKNESS 材料厚度 A709M-345T2 22/14mm
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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
SEG3015H-271	1R1	69				46									ACC.	100%
SEG3015K-224	1R1	69				46									ACC.	100%

AFTER B-WR20641

BLANK

EXAMINED BY 主探 <i>Fu Tie Jian</i> LEVEL - II SIGN / DATE 7/1/05.18 质量经理 / QCM <i>[Signature]</i> 签字 SIGN / 日期 DATE	REVIEWED BY 审核 <i>Tang Kingshun</i> LEVEL - II SIGN / DATE 7/1.05.18 用户 CUSTOMER 签字 SIGN / 日期 DATE
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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	SEG3015H	报告编号 Report No.	B-WR20710
合同号 Contract No.	04-0120F4	部件名称 Items Name	13CW FLOOR BEAM AND I -RIB	NDT报告编号 Report No. of NDT	B787-UT-20764
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述: (普通UT探伤发现的缺陷长度小于最大允许长度)

(Description of welding discontinuity): Rejected indication found by ultrasonic inspection is less than the maximum allowance aggregate length.

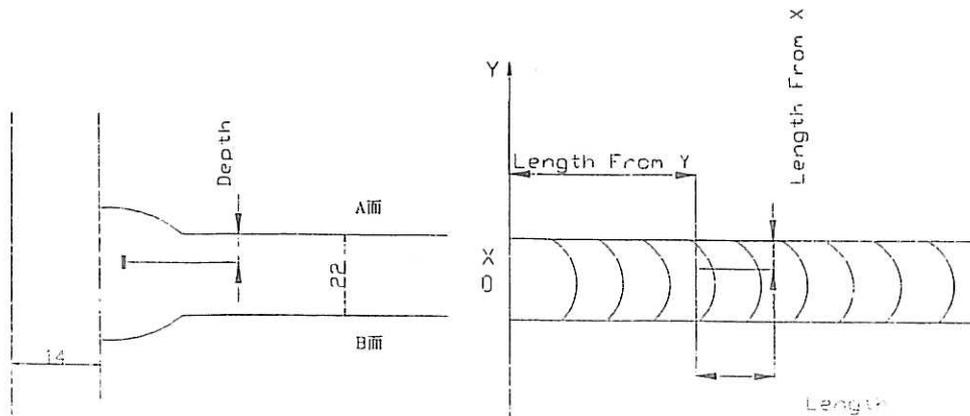
焊缝编号为: SEG3015H-276, SEG3015K-224

检验员 (Inspector) : Fu Tiejian (Date) : 2011.04.13

Fu Tiejian

焊缝返修位置示意图:

Draft of welding discontinuity:



Please see the detail data from UT report!

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): *Liu Jiansheng* 日期(Date): 2011.07.12

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. 将修补区域打磨到与母材或邻近焊缝平齐;
4. 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. Grind the repaired area flush with base metal or the adjacent weld;
4. Check the welds according to the working drawings.

工艺:
Technical engineer

Niu Tiejun

审核:
Approved by

Liu Jiansheng

日期
Date



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	SEG3015H	报告编号 Report No.	B-WR20710
合同号 Contract No.:	04-0120F4	部件名称 Items Name	13CW FLOOR BEAM AN D I-RIB	NDT报告编号 Report No.of NDT	B787-UT-20764
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 Gao

日期(Date):

2011.04.13

参照的WPS编号 Repair WPS No.	<input type="checkbox"/> WPS-345-SMAW-1G(1F)- Repair <input type="checkbox"/> WPS-345-FCAW-1G(1F)- Repair-1 <input type="checkbox"/> WPS-345-SMAW-2G(2F)-Repair <input type="checkbox"/> WPS-345-FCAW-2G(2F)-Repair-1 <input type="checkbox"/> WPS-345-SMAW-3G(3F)- Repair <input type="checkbox"/> WPS-345-SMAW-4G(4F)- Repair <input type="checkbox"/> WPS-345-SMAW-1G(1F)-FCM-Repair <input type="checkbox"/> WPS-345-SMAW-2G(2F)-FCM-Repair <input checked="" type="checkbox"/> WPS-345-SMAW-3G(3F)-FCM-Repair-1 <input type="checkbox"/> WPS-345-SMAW-4G(4F)-FCM-Repair <input type="checkbox"/> WPS-345-FCAW-3G(3F)-Repair	工艺员 technologist	<i>Niu Jiefeng</i>
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返修(碳刨)前预热温度 Preheat temperature before gouging	<i>NA</i>	返修的缺陷 Description of discontinuity	<i>slag</i>
焊前处理检查 Inspection before welding	<i>VT.M.T. Au</i>	焊前预热温度 Preheat temperature before welding	<i>140°C</i>
最大碳刨深度 Max. depth of gouging	<i>10mm</i>	碳刨总长 Total length of gouging	<i>1.2m</i>

焊工 welder	<i>066019</i>	焊接类型 welding type	<i>SMAW</i>	焊接位置 position	<i>3G</i>
焊接电流 Current	<i>138</i>	焊接电压 Voltage	<i>23.6</i>	焊接速度 Speed	<i>107</i>

返修后检查 Inspection After repairing:					
外观检查 VT result	<i>VT. Au</i>	检验员 Inspector	<i>Sun Tianliang</i>	日期 Date	<i>2011.05.11</i>
NDT复检 NDT result	<i>Acc</i>	探伤员 NDT person	<i>Fu Tiejian</i>	日期 Date	<i>2011.05.18</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-20764R1 DATE 2011.05.18 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: 13CW FLOOR BEAM AND I-RIB DRAWING NO.: SEG3015H 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 SMAW JOINT TYPE 焊缝类型 T-JOINT CALIBRATION DUE DATE 仪器校正有效期 Dec. 28ST, 2011

EQUIPMENT 设备 MANUFACTURER 制造商 PANAMETRICS MODEL NO. 样式编号 EPOCH 4B SERIAL NO. 序列编号 071565311

CALIBRATION BLOCK 试块 AWS IIW BLOCK TYPE II COUPLANT 耦合剂 C.M.C MATERIAL/THICKNESS 材料厚度 A709M-345T2 22/14mm

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
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		
SEG3015H-276	1R1	69				46								ACC.	100%
SEG3015K-224	1R1	69				46								ACC.	100%

AFTER B-WR20710

BLANK

EXAMINED BY 主探 FV Tiejian
 LEVEL - II SIGN / DATE 2011.05.18

REVIEWED BY 审核 Tongsheng shan
 LEVEL - II SIGN / DATE 2011.05.18

质量经理 / QCM [Signature]
 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



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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, China**Report No:** NCS-000968**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 19-May-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0952**Type of problem:**

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

Date the Non-Conformance Report was written: 07-Apr-2011**Description of Non-Conformance:**

During the Quality Assurance Ultrasonic Testing (UT) verification of weld located on OBG Segment 13CW, this Quality Assurance Inspector (QA) discovered the following issues:

- A total of two (2) Class "A" indications measuring approximately 20-25mm in length.
- ZPMC QC personnel have tested and accepted a weld that did not meet the Visual Testing (VT) requirements of the contract documents.

- The indications detail are given as below;

1. The Indication rating is +4dB and length approximately 20mm.

The Thickness of the plate is 22mm and depth of the indication approximately 16mm.

The indication is located on the weld joint identified as SEG3015H-276.

The "Y" location for this indication is approximately 145mm from top edge of this RS Stiffener.

The weld is a Complete Joint Penetration (CJP) "T" weld joint joining Side Plate RS Stiffener to Floor Beam (FB3224A) at panel point 123.

This weld did not meet the Visual Testing (VT) requirements of the contract documents due to incomplete welding at the cope hole.

2. The Indication rating is +7dB and length approximately 25mm.

The Thickness of the plate is 22mm and depth of the indication approximately 19mm.

The indication is located on the weld joint identified as SEG3015K-224.

The "Y" location for this indication is approximately 35mm from top edge of this RS Stiffener.

The weld is a Complete Joint Penetration (CJP) "T" weld joint joining Side Plate RS Stiffener to Floor Beam (FB3220A) at panel point 122.5.

This weld did not meet the Visual Testing (VT) requirements of the contract documents due to visible slag and Arc Strikes present on the accepted weld.

