

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-000546

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 17-Dec-2009

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

NCR #: ZPMC-0519

Type of problem:

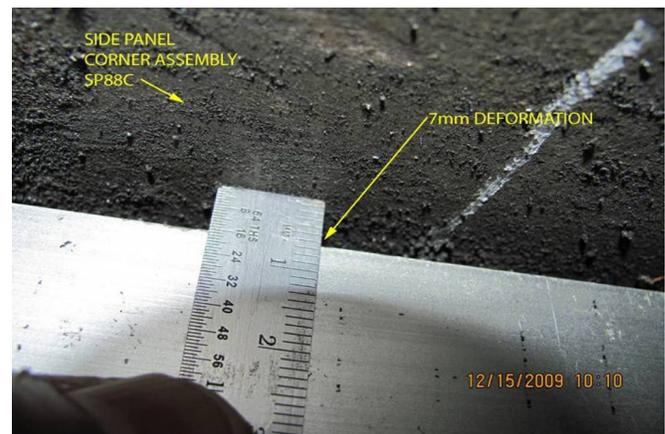
Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Segment 6BE to 6CE
Procedural	Procedural	Description: Dimensional Control	

Reference Description: Side Panel Flatness, Segments 6BE/6CE

Description of Non-Conformance:

During a random visual survey inspection for flatness of Corner Assembly (CA) to Side Panels (SP) of the Transverse Splice for segment 6BE to segment 6CE between PP43 and PP44, the Caltrans Quality Assurance (QA) Inspector verified out of flatness measurements at the intersections of CA to SP welds. The maximum out of flatness measurement was 7mm, utilizing a 600mm straight edge and the maximum allowable tolerance is 5mm. Additional information identifying this non-conformance is listed below.

- 1) Side Panel 6BE plate is identified as: SP527A
- 2) Side Panel 6CE plate is identified as: SP528A
- 3) Corner Assembly 6BE plate is identified as: CA14A
- 4) Corner Assembly 6CE plate is identified as: SP88C
- 5) Transverse weld splice for 6BE to 6CE is identified as: OBE6C-002
- 6) Horizontal weld splices are identified as: SEG030A-010 and SEG032B-025



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Applicable reference:

Standard Specifications July, 1999: Section 55-3.17 WELDING; "The flat side of all butt welded joints shall not deviate from flatness by more than 5 mm in a length of 600 mm centered over the weld joint."

Who discovered the problem: S. Manjunath. Math

Name of individual from Contractor notified: C.K. Chan

Time and method of notification: 1020 hours, 12-15-09, Verbal

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 1130 hours, 12-16-09 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
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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
Attention: Mr. Thomas Nilsson Project/Fabrication Manager
Subject: NCR No. ZPMC-0519

Job Name: SAS Superstructure
Document No: 05.03.06-000507

Reference Description: Side Panel Flatness, Segments 6BE/6CE

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:** 06

Remarks:

During a random visual survey inspection for flatness of Corner Assembly (CA) to Side Panels (SP) of the Transverse Splice for segment 6BE to segment 6CE between PP43 and PP44, the Caltrans Quality Assurance (QA) Inspector verified out of flatness measurements at the intersections of CA to SP welds. The maximum out of flatness measurement was 7mm, utilizing a 600mm straight edge and the maximum allowable tolerance is 5mm. Additional information identifying this non-conformance is listed below.

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- 6) Horizontal weld splices are identified as: SEG030A-010 and SEG032B-025

Action Required and/or Action Taken:

Submit a repair procedure to correct flatness to within the specified tolerance to the engineer for approval. A response for the resolution of this issue is expected within 7 days.

Transmitted by: Bill Howe

Attachments: ZPMC-0519

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: 05.03.06-000507

Subject: NCR No. ZPMC-0519

Dated: 08-Feb-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000576 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: Dimensional acceptance will be available at the time of shipment after all parties are in agreement. ZPMC requests that this NCR be approved with actions pending.

As these are related to the final dimensions of the sub assembly and there is potential for distortion with ongoing work in trial assembly. Dimensional acceptance will be available at the time of shipment after all parties are in agreement. Until that those results are available, ZPMC requests that this NCR be approved with actions pending.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000576R00

Caltrans' comments:

Status: REJ

Date: 08-Feb-2010

No repair procedure was received. This NPR is rejected.

Submitted by: Howe, Bill

Date: 08-Feb-2010

Attachment(s):

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000507

Subject: NCR No. ZPMC-0519

Dated: 10-Feb-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000576 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: To close this NCR, once the distortion documented in this non conformance is corrected and the applicable documents that verify this are submitted ZPMC will request closure.

To close this NCR, once the distortion documented in this non conformance is corrected and the applicable documents that verify this are submitted ZPMC will request closure. Until they become available ZPMC requests that this proposal be accepted with action pending.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000576R01

Caltrans' comments:

Status: AAP

Date: 11-Feb-2010

AAP approved.

Submitted by: Howe, Bill

Date: 11-Feb-2010

Attachment(s):

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000507

Subject: NCR No. ZPMC-0519

Dated: 29-Mar-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000576 Rev: 02

Contractor's Proposed Resolution:

Reference Resolution: While performing the NDT of the welds after ZPMC discovered an indication and is providing documentation of the repair and subsequent NDT showing that the welds are acceptable

REFLASH: REVISED ATTACHMENT, 3-29-10

ZPMC has rectified the flatness issues documented in the NCR. While performing the NDT of the welds after ZPMC discovered an indication and is providing documentation of the repair and subsequent NDT showing that the welds are acceptable. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000576R02;

Caltrans' comments:

Status: CLO

Date: 05-Apr-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0519 is closed.

Submitted by: Eagen, Sean

Attachment(s):

Date: 05-Apr-2010



No. B-680

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-3-15

REGARDING: NCR-000546(ZPMC-0519)

ZPMC performed heat straightening work to rectify this dimension issue between Side Plates. Attached Heat Straightening Report and Dimension Check Report show the side plates' dimension problem has been rectified and accepted. ZPMC performed NDT to the affected welds and has fixed the indication found by UT. ZPMC is providing the NDT records show all the affected welds are acceptable. After the verification by CT's representative this issue has been removed from punchlist. Based on this, ZPMC is requesting this NCR to be closed.

ATTACHMENT:

NCR-000546(ZPMC-0519)

HSR1(B)-8154

DIMENSION CHECK AFTER HS

B787-UT-11550

B787-MT-19952

B-WR10739

B787-UT-11278 R1

A handwritten signature in black ink, appearing to be 'Jing W'.

3/15/10



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 333 Burma Road
 Oakland CA 94607
 Tel: Fax:

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Date: 24-Dec-2009

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Lift: 26

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cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao
 File: 05.03.06

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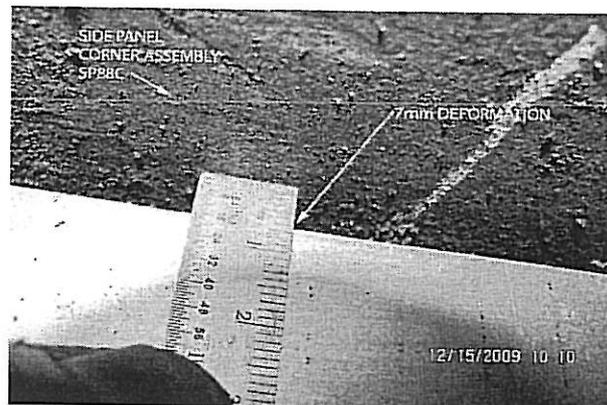
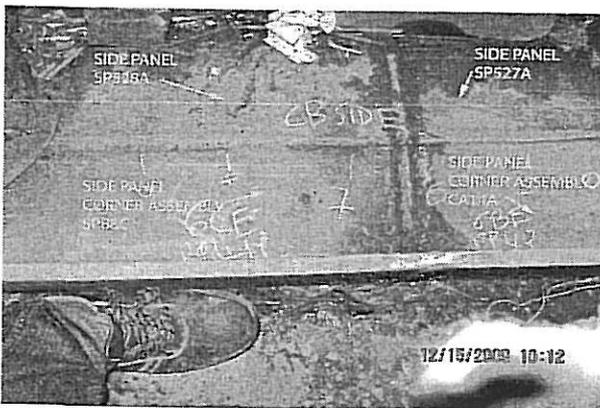
Welding Concrete Other
 Welding Curing Procedural Bridge No: 34-0006
 Joint fit-up Coating Other Component: Segment 6BE to 6CE
 Procedural Procedural Description: Dimensional Control

Reference Description: Side Panel Flatness, Segments 6BE/6CE

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Inspected By: Guest, Skyler SMR

Reviewed By: Wahbeh, Mazen SMR



火工校正记录

Heat Straightening Record(HSR1)

报告号 Record#

HSR1(B)-8154

版本号 Revision #

0

日期 Date

2010.02.24

美国海湾大桥 San Francisco Oakland Bay Bridge

CALTRANS #04-0120F4

工程编号 JOB#: ZP06-787

装配 Assembly:

质检代表/Quality Control Representative

部装 Sub-Assembly:

[Signature] 2/26/10

梁段 Gird: 6BE+6CE

质检经理/Quality Assurance Manager-Approval

塔段 Tower:

N/A

[Signature]

焊缝号 Weld No:

002

焊缝地图号 Weld Map No:

OBE6A

情况描述 Description of Condition

Cause 原因

Welding distortion 焊接变形

Type of Defect 缺陷类型

Welding distortion 焊接变形

Inspection Method 检查方法

Visual 目检

处置方法 Disposition

缺陷去除方法(Defect Removal Method):

Flame Straightening by oxygen acetylene

后续NDE(Post-Removal NDE):

After finishing heat straightening, the weld of the heat area shall perform NDT according to the approved shop drawing

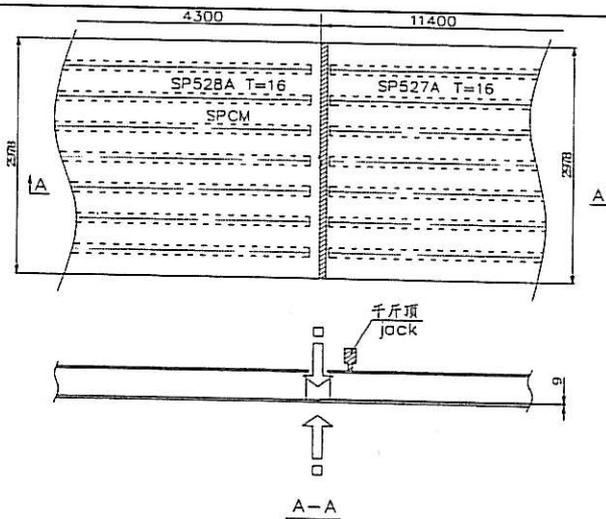
纠正措施(Corrective Action(s)):

Control current, voltage and weld speed according to relevant WPS. If necessary anti-deformation or hold down device can be added.

实施次数(Number of application): 1~3

最高温度(Maximum temperature): <650°C

简图 Sketch



注: 最大变形量约 9mm, 校火宽度50~100mm.

NOTE: the max deformation is about 9mm, heat straightening the width is 50~100mm.

To be signed when Closing HSR~Verify compliance and all necessary reports are ready to attach

检验员 Inspector:

[Signature]

签字 Signature:

[Signature]

CWI #

0712.0711

II 级探伤 NDE Certification:

Level II

Closing Date:

2010. 4. 12.

质检经理 QC Manager

审核日期 Review Date:

Note: All repair work shall be performed in accordance with applicable CALTRANS approved procedures, contract specifications and AWS D1.5 2002.

#R787-QCP-1101

Approved by *[Signature]* 2/26/10

美国钢桥钢板平整度火工校正检查记录卡

The report of steel plate heat straightening process checking



工程编号: The serial no. of project:	2706-787	图号: The drawing no.:	SP528/SP527A	构件名称: The part name.:	斜撑板
材质: Material:	A709M-345T2F	炉批号: The heatno of plate:	N/A	火工校正次数: The times of heat straightening:	2
移植是否正确: Material mark checking:	正确	钢板编号: Plate ID:	N/A	桥段名称: Section name:	6BE+6CE

火工校正温度控制 The temperature record of heat straightening

检查时间 Checking time:	13:30-14:00								
测量温度 Measure result:	492°C	500°C							

校火前平整度测量 Flatness checking before heat straightening (mm)

测量点 Measure position:	A	B							
测量值 Measure result:	9	8							

校火后平整度测量 Flatness checking after heat straightening (mm)

测量点 Measure position:	A	B							
测量值 Measure result:	2	2							

整体平整度/筋板垂直度是否合格
Heat straightening result:

ALL

检验员
QC inspector:

Wang Li Yang

日期
Date:

2010.2.22

若校正影响焊缝,请填写以下项目
Fill the following items if the straightening affects the weld

对应NDT报告编号
NDT report no.

UT

MT

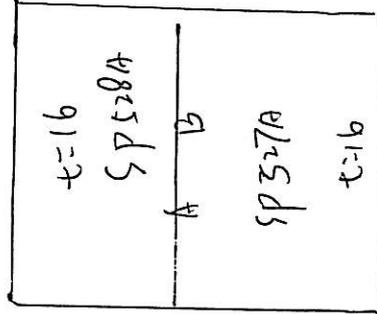
RT

NDT 检验员签字
NDT inspector:

Tang Xing Shui

日期
Date:

2010.2.25





REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-19952		DATE日期 2010.03.11	PAGE OF页码 1/1	Revision No: 0
PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS		
DRAWING NO. 图号: 6BE/6CE CB SIDE PLATE		CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4		
REFERENCING CODE 参考规范编码 AWS D1.5-2002	ACCEPTANCE STANDARD 接受标准 AWS D1.5-2002	PROCEDURE NO. 程序编号 ZPQC-MT-01	CALIBRATION DUE DATE 仪器校正有效期 Dec. 28 ST , 2010	
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5395 5617 5620	
MAGNETIZING METHOD 磁化方法	Continuous magnetic yoke 磁轭式连续法	CURRENT 电流	AC	
PARTICLE TYPE 磁粉类型	Dry magnet powder 干磁粉	YOKE SPACING 磁轭间距	70~150mm	
MATERIAL TO BE EXAMINED 检测材料	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材,厚度	A709M-345 16mm	
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	BUTT	

WELD I.D. 焊缝编号	DISCONTINUITY不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
OBE6C-002				ACC.		100%MT

AFTER HSR1(B)-8154

BLANK

EXAMINED BY主探 <i>Wang We</i> / 1003.11	REVIEWED BY 审核 <i>Xu Bing</i> / 1003.11
LEVEL - II SIGN 签名 / DATE日期	LEVEL-II SIGN / DATE日期
质量经理 / QCM	用户CUSTOMER
签字 SIGN / 日期 DATE	签字 SIGN / 日期 DATE

2PM0519



焊缝返修报告

Welding Repair Report

版本 Rev. No.

0

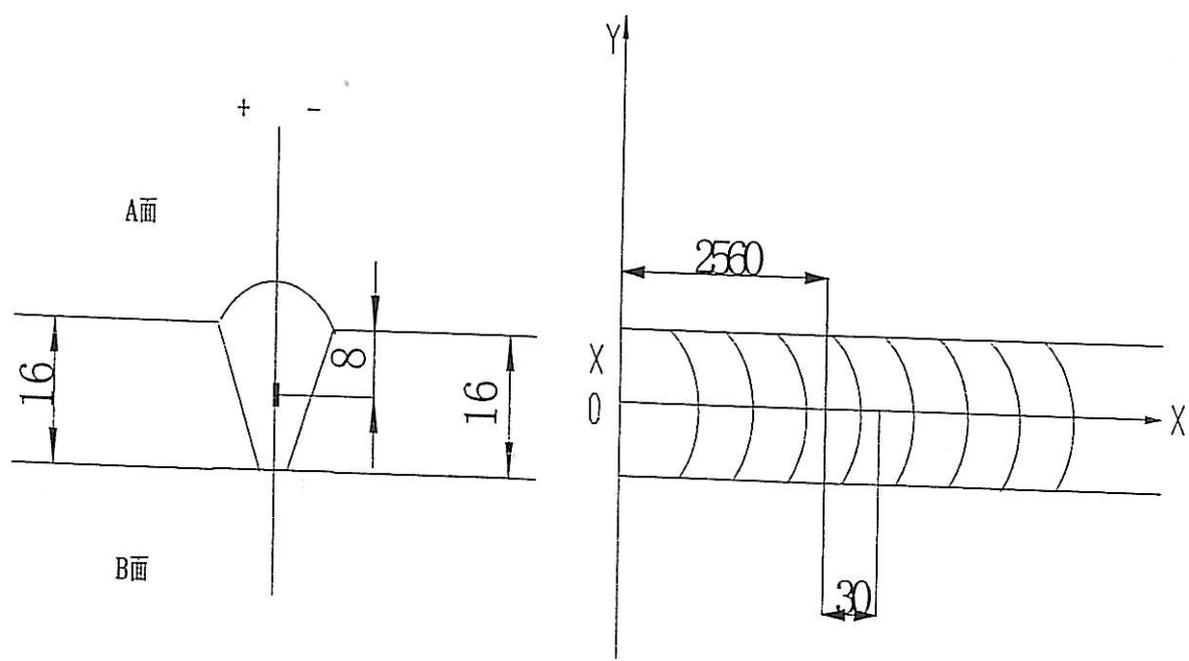
项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No	6BE	报告编号 Report No.	B-WR10739
合同号 Contract No.	04-0120F4	部件名称 Items Name	CORNER ASSEMBLY A ND BOX SIDE PLATE	NDT报告编号 Report No. of NDT	B787-UT-11278
项目编号 Project No.:	ZP06-787				

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。) SEG030A-010

检验员 (Inspector) : Tang Xingshan 日期 (Date) : 2010.02.25

焊缝返修位置示意图：
Draft of welding discontinuity:



WELD NUMBER: SEG030A-010

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): 2-27)

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消除;
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

审核:
Approved by

日期
Date



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	6BE	报告编号 Report No.	B-WR10739
合同号 Contract No.:	04-0120F4	部件名称 Items Name	CORNER ASSEMBLY AND BOX SIDE PL ATE	NDT报告编号 Report No. of NDT	B787-UT-11278
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): *Li Zhigang* 日期(Date): 2.27

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	<i>Xu Donghai</i> 2.27
返修(碳刨)前预热温度 Preheat temperature before gouging	100°C	返修的缺陷 Description of discontinuity	I-F
焊前处理检查 Inspection before welding	Acc	焊前预热温度 Preheat temperature before welding	120°C
最大碳刨深度 Max depth of gouging	10mm	碳刨总长 Total length of gouging	140mm
焊工 welder	048444	焊接类型 welding type	SMAW
焊接电流 Current	160	焊接位置 position	2G
		焊接电压 Voltage	23.4
		焊接速度 Speed	107 mm/min
返修后检查 Inspection After repairing:			
外观检查 VT result	Acc	检验员 Inspector	<i>Li Yanhua</i> 07120701
NDT复检 NDT result	Acc	探伤员 NDT person	<i>Tang Shiyuan</i>
日期 Date	2010.12.28	日期 Date	2010.03.09
见证: Witness/Review:			
备注: Remark:			

#R787-QCP-900



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 B787-UT-11278 DATE 2010.02.25 PAGE 1 OF 1 Revision No: 0

PROJECT NO.: 工程编号 ZP06-787

ITEMS NAME: 部件名称 CORNER ASSEMBLY AND BOX SIDE PLATE	DRAWING NO.: 图号 6BE	CONTRACTOR: CALTRANS CALTRANS CONTRACT NO.: 04-0120F4 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 SAW	JOINT TYPE 焊缝类型 BUTT	CALIBRATION DUE DATE 仪器校正有效期 Dec. 28 ST , 2010	

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, 061488510, 061495811, 070152011,
CALIBRATION BLOCK 试块 AWS IIV BLOCK TYPE II	COUPLANT 耦合剂 C.M.C	MATERIAL/THICKNESS 材料厚度 A709M-345F2/T2-X 16mm	

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		
SEG030A-010	1	70	A	1	45	32	4	+9	30	72	8	0	2560	REJ.	100%

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EXAMINED BY 主探 <i>Tang Jing shan</i>	REVIEWED BY 审核 <i>Andrew Rong</i>
LEVEL - II SIGN / DATE 2010.2.25	LEVEL - II SIGN / DATE 2010.2.25
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-11278R1 DATE 2010.03.09 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: CORNER ASSEMBLY AND BOX SIDE PLATE DRAWING NO.: 6BE 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 IIW BLOCK TYPE II C.M.C A709M-345F2/T2-X 16mm

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
SEG030A-010	1R1	70				32									ACC.	100%

AFTER B-WR10739

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EXAMINED BY 主探 LEVEL - II SIGN / DATE 10-3-09	REVIEWED BY 审核 LEVEL - II SIGN / DATE 10-3-09
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-12114

DATE 2010.03.10

PAGE 1 OF 1

Revision No: 0

PROJECT NO.: 工程编号 ZP06-787

CONTRACTOR: CALTRANS

ITEMS NAME: OBG SIDE PLATE SPLICE
部件名称 6CEDRAWING NO.: SEG032B
图号CALTRANS CONTRACT NO.: 04-0120F4
加州工程编号REFERENCING CODE 参考规范
AWS D1.5-2002ACCEPTANCE STANDARD 接受标准
AWS D1.5-2002(Table 6.3)PROCEDURE NO. 程序编号
ZPQC-UT-01WELDING PROCESS 焊接方法
SAWJOINT TYPE 焊缝类型
BUTTCALIBRATION DUE DATE 仪器校正有效期
DEC. 28ST, 2010EQUIPMENT 设备
UT SCOPEMANUFACTURER 制造商
PANAMETRICSMODEL NO. 样式编号
EPOCH-4BSERIAL NO. 序列编号
071565311,061488510,
061495811, 070152011,CALIBRATION BLOCK 试块
AWS IIV BLOCK TYPE IICOUPLANT 耦合剂
C.M.CMATERIAL/THICKNESS 材料厚度
A709M-345F2-X 16mm

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 °	2.5 MHz	18x18 mm				
Changchao	0 °	2.5 MHz	20 mm	Reference Level	参考灵敏度		20dB
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
SEG032B-025		70					32								ACC.	100%UT

AFTER HSR1(B)-8154

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EXAMINED BY 主探

REVIEWED BY 审核:

Tomy Xingham 20/0.03.10
LEVEL - II SIGN / DATE

Xu Rong gang 20/0.03.10
LEVEL - II SIGN / DATE

质量经理 / QCM

用户 CUSTOMER

签字 SIGN / 日期 DATE

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-000611**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 13-Apr-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0519**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: 17-Dec-2009**Description of Non-Conformance:**

During a random visual survey inspection for flatness of Corner Assembly (CA) to Side Panels (SP) of the Transverse Splice for segment 6BE to segment 6CE between PP43 and PP44, the Caltrans Quality Assurance (QA) Inspector verified out of flatness measurements at the intersections of CA to SP welds. The maximum out of flatness measurement was 7mm, utilizing a 600mm straight edge and the maximum allowable tolerance is 5mm. Additional information identifying this non-conformance is listed below.

- 1) Side Panel 6BE plate is identified as: SP527A
- 2) Side Panel 6CE plate is identified as: SP528A
- 3) Corner Assembly 6BE plate is identified as: CA14A
- 4) Corner Assembly 6CE plate is identified as: SP88C
- 5) Transverse weld splice for 6BE to 6CE is identified as: OBE6C-002
- 6) Horizontal weld splices are identified as: SEG030A-010 and SEG032B-025

Contractor's proposal to correct the problem:

Perform NDT required to verify weld quality.

Corrective action taken:

Contractor submitted NDT reports verifying welds affected by heat straightening procedure are 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

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Structural Materials for your project.

Inspected By: Simonis,Jim

Quality Assurance Inspector

Reviewed By: Wahbeh,Mazen

QA Reviewer
