

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

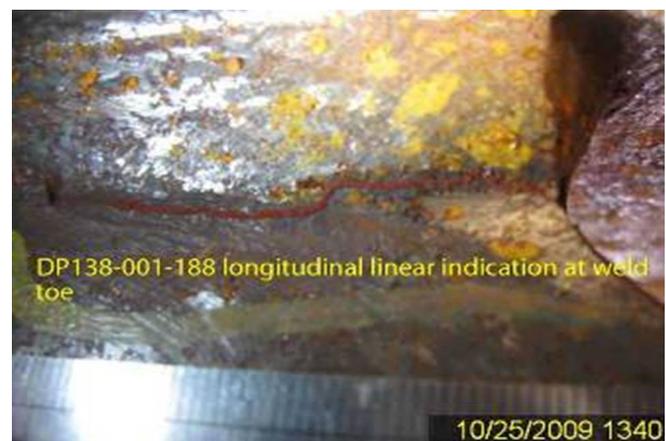
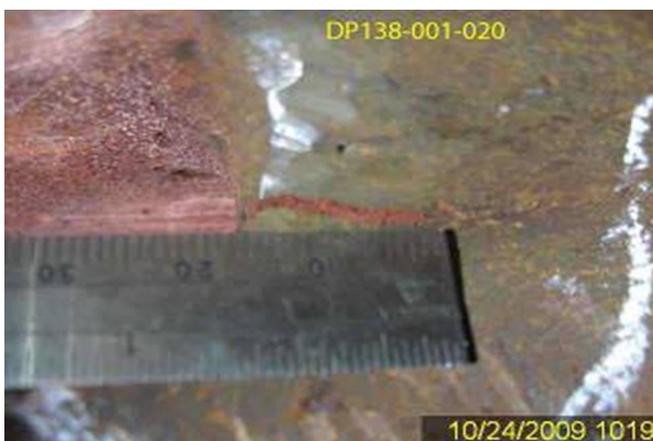
Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, P. R. China**Report No:** NCR-000491**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 25-Oct-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0464**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Segment 6AW Deck Panel Weld
Procedural	Procedural	Description: Missed MT indication by QC	

Reference Description: Missed MT Indications by QC on OBG Segment 6AW DP**Description of Non-Conformance:**

During a random Magnetic Particle (MT) verification (October 25, 2009), of welds at OBG Segment 6AW, Caltrans Quality Assurance (QA) Inspector observed two (2) Longitudinal Cracks on the Deck Panel Diaphragm to Deck Panel fillet welds measuring 40 mm and 15 mm in length. These welds were identified as DP138-001-187 and 188. ZPMC had previously MT tested and accepted these welds mentioned above.

During random MT verification (October 24, 2009) of OBG Segment 6AW, Caltrans QA observed two (2) linear Longitudinal Cracks on Deck Panel Diaphragm to Deck Panel fillet welds measuring 15mm in length each on welds DP138-001-019 and 020. These welds were previously tested and accepted by ZPMC QC MT.



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

AWS D1.5 (02) Section 6.26.1.1; "The weld shall have no cracks."

AWS D1.5 (02) Section 6.26.2; "Welds that are subject to MT in addition to visual inspection shall have no cracks."

Who discovered the problem: Larry Viars

Name of individual from Contractor notified: Steve Lawton

Time and method of notification: 1500 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao and Bill Howe

Time and method of notification: 1600 hours, Verbal

QC Inspector's Name: Wang Lu

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Inspected By: Carreon,Albert

Lead Reviewer/Task Leader

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: 02-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: 05.03.06-000454

Subject: NCR No. ZPMC-0464

Reference Description: Missed MT Indications by QC on OBG Segment 6AW DP

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 Magnetic Particle (MT) verification (October 25, 2009), of welds at OBG Segment 6AW, Caltrans Quality Assurance (QA) Inspector observed two (2) Longitudinal Cracks on the Deck Panel Diaphragm to Deck Panel fillet welds measuring 40 mm and 15 mm in length. These welds were identified as DP138-001-187 and 188. ZPMC had previously MT tested and accepted these welds mentioned above.

Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval. Provide training for the MT technicians and submit training results indicating competency.

Transmitted by: Bill Howe

Attachments: ZPMC-0464

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, 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: 05.03.06-000454

Subject: NCR No. ZPMC-0464

Dated: 18-Jan-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000491 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: As a means of preventing future occurrences, the ABF QCM has performed refresher MT training. See attached MT 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 MT training. See attached MT training agenda and attendance roster. The ABF QCM has been discussing missed MT indications with the ZPMC QCM and related NDT supervisory personnel. The ZPMC level III is in the process of assessing personnel, techniques and equipment. Preliminary findings have resulted in ZPMC taking immediate action by performing 100% overchecks of the previously tested areas beginning the week of 18 January 09 as a means of preventing future NCR's for missed indications. ABF has purchased powder dispensers for all the ZPMC MT technicians as a means to help control the amount of powder applied during MT testing. 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-000491R00;

Caltrans' comments:

Status: AAP

Date: 21-Jan-2010

Approval pending documentation.

Submitted by: Howe, Bill

Date: 21-Jan-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 Cheng Gong	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	

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000454

Subject: NCR No. ZPMC-0464

Dated: 01-Mar-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000491 **Rev:** 01

Contractor's Proposed Resolution:

Reference Resolution: This item has been closed on the punchlist and the attached documentation shows it is acceptable.

ZPMC has repaired the indication noted in the NCR and issued an internal NCR to make the production and QA team responsible aware of the non conformance. This item has been closed on the punchlist and the attached documentation shows it is acceptable. In addition, the MT inspectors have been equipped with magnetic powder bulbs to improve the application of powder and have attended training both internally with ZPMC and ABFJV. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000491R01;

Caltrans' comments:

Status: CLO

Date: 07-Mar-2010

The documentation received is sufficient to close this NCR.

Submitted by: Howe, Bill

Attachment(s):

Date: 07-Mar-2010



No. B-624

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-2-26

REGARDING: NCR-000491 (ZPMC-0464)

With this letter of response, ZPMC requests closure of CT NCR-000491 (ZPMC-0464) what mentioned that Missed MT indications were observed by CT inspector.

- ZPMC acknowledged this problem and has issued internal NCR.
- CWR was issued reflecting to these defections. These defections has been removed, repaired, tested and accepted.
- The punch list item 190 what mentioned this NCR has been confirmed and closed by CT inspector.
- To improve the MT method, refresh training was performed to ZPMC's MT personnel by ABF QCM.

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

ATTACHMENT:

NCR-000491 (ZPMC-0464)

NCR-B-311

B-CWR1065

B787-MT-17838R1

A handwritten signature in blue ink, appearing to be 'L. W.', is written over the attachment list.

2/27/10

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT**Location:** Changxing Island, Shanghai, P. R. China**Report No:** NCR-000491**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 25-Oct-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0464**Type of problem:**Welding Concrete Other Welding Curing Procedural **Bridge No:** 34-0006Joint fit-up Coating Other **Component:** Segment 6AW Deck Panel WeldProcedural Procedural **Description:** Missed MT indication by QC**Reference Description:** Missed MT Indications by QC on OBG Segment 6AW DP**Description of Non-Conformance:**

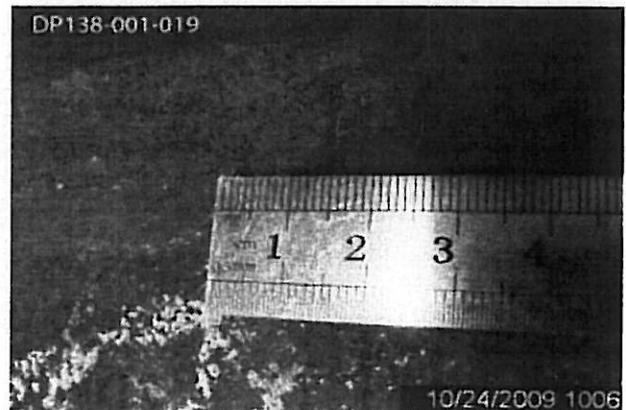
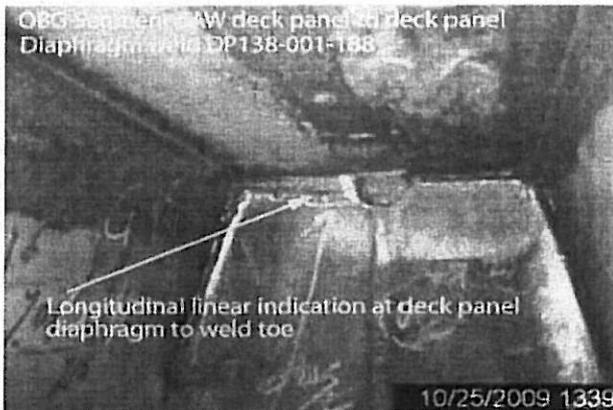
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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



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Who discovered the problem: Larry Viars

Name of individual from Contractor notified: Steve Lawton

Time and method of notification: 1500 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao and Bill Howe

Time and method of notification: 1600 hours, Verbal

QC Inspector's Name: Wang Lu

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

Comments:

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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Inspected By: Carreon,Albert

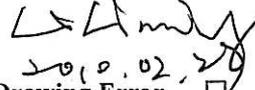
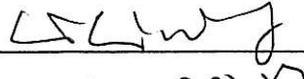
Lead Reviewer/Task, Leader

Reviewed By: Wahbeh,Mazen

SMR

CWR1065

17839

		<h2 style="margin: 0;">Nonconformance Report</h2> <p style="margin: 0;">不符合项报告</p>	
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-311(ZPMC-0464)	
Item: Missed MT indications by QC 名称描述: MT 漏检		Item Number: 件号: 6AW	Drawing: 图号: N/A
Location: Assembly yard 位置: 外场		Date: 日期: 2009-12-18	
Description of Nonconformance: 不符合项状态描述:			
<p>During a random Magnetic Particle verification, of welds at OBG Segment 6AW, Caltrans Quality Assurance Inspector observed two longitudinal Cracks on the Deck Panel Diaphragm to Deck Panel fillet welds measuring 40 mm and 15 mm in length, These welds were identified as DP 138-001-187 and 188.ZPMC had previously MT tested and accepted these welds mentioned above.</p> <p>During random MT verification of OBG Segment 6AW,Caltrans QA observed two linear longitudinal cracks on Deck panel Diaphragm to Deck Panel fillet welds measuring 15mm in length each on welds DP138-001-019 and 020.These welds were previously tested and accepted by ZPMC QC MT.</p> <p>加州检验员发现在 6AW 顶板隔板与顶板的双面角焊缝上发现四条纵向裂纹。这四条焊缝编号为 DP138-001-187/188/019/020。而之前 ZPMC 探伤人员都接受了这四条焊缝。</p>			
Work By:  施工方: 2010.02.17		Prepared by: _____ 准备:	
<input type="checkbox"/> Drawing Error 图纸错误		<input type="checkbox"/> Material Defect 材料缺陷	
		<input type="checkbox"/> Fabrication Error 制作错误	
		<input type="checkbox"/> Other 其他原因	
Disposition: <input type="checkbox"/> Use as is 处理措施: 回用		<input type="checkbox"/> Repair 返修	
		<input type="checkbox"/> Reject 拒收	
Recommendation: 建议:			
 Confirm the defect and repair.			
Prepared by:  准备: 2010.02.17		Approved by QCA: _____ 质量经理批准	
Reason for Nonconformance: 不符合原因:			
缺陷不在检测范围之外, Defect out of inspect area.			

Prevention of Re-occurrence:

预防措施:

标示范围检测。
Mark inspection area.

Approved by/批准: LLWJ 2019.02.27

Technical Justification for Use-As-Is/Repair:

回用或返修的技术依据:

Attachment

附件

Non-attachment

无附件

Reviewed /批准: _____

Verification:

确认:

Acceptable

可接受

Unacceptable

不可接受

Verified by QCI/质检确认:

李振华 2019/10

Reviewed by QCA/质检主任审核: _____

#R787-QCP-1300



关键焊缝返修报告
Critical Welding Repair Report (CWR)

版本
Rev. No.:

0

项目名称 Project Name:	美国海湾大桥 SFOBB	部件图号 Drawing No.:	DP138	报告编号 Report No.:	B-CWR1065
合同号 Contract No.:	04-0120F4	部件名称 Item Name:	OBG 6AW PLATE PANEL SPLCE	NDT 报告编号 NDT Report No.:	B787-MT-17838
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述:

Description of Welding Discontinuity:

Welder ID No. (焊工编号): 066882 Position: (位置): 3F

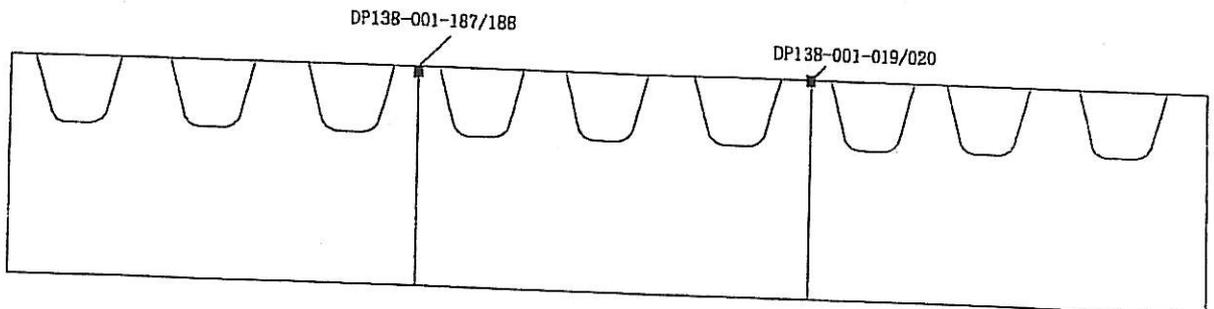
- One longitudinal crack was found by use of MT on DP138-001-187
- One longitudinal crack was found by use of MT on DP138-001-188
- One longitudinal crack was found by use of MT on DP138-001-019
- One longitudinal crack was found by use of MT on DP138-001-020

检验员 (Inspector): Sun Gong chang

日期 (Date): 2010-01-09

焊缝返修位置示意图:

Draft of Welding Discontinuity:



This document is APPROVED
State of California
DEPARTMENT OF TRANSPORTATION
Pursuant to Section 5-1.02 of the
Standard Specifications
Initial: ASJ Date: 1/13/10

产生原因:

Cause:

1. 火焰加热时, 水汽没有完全的去掉或者这个区域预热不够;
1. Moisture wasn't completely removed during drying operation (preheating) or the area wasn't preheated sufficiently.

车间负责人 (Foreman): Ma Ruiquan

日期 (Date): 10.1.10

处理意见

Disposition:

1. 这次返修时, QC和Leader CWI到现场对打磨, 焊接进行指导和监控工作以保证返修按照处理意见进行;
2. 整个返修的过程, QC和Leader CWI应该有批准CWR的复印件;
3. 去除热影响区域上在各个方向上不小于25mm范围内的油漆;
4. 将杂物以及MT检测遗留的残留物清理干净。然后采用打磨的方法去除裂纹, 打磨前预热至65° C。对于单个裂纹返修, 打磨返修范围清除长度为沿裂纹长度加上超出其每一端50mm;
5. 如果打磨时母材损伤, 则在返修前将损伤区域打磨干净; 如果打磨时或打磨后根部间隙大于5mm, 则在继续返修前另需递交文件给工程师予以审核批准, 并按照被批准的方法将角焊缝改成CJP焊缝;
6. 焊接前按照新的焊接返修工艺准备焊缝接头形式;
7. 返修前, VT和MT检测确认返修区域没有裂纹及其他缺陷存在, 同时靠近裂纹的母材也要做MT, 保证没有裂纹延伸到母材。如果在母材上发现裂纹, 则另外需CWR, 且只有当这份另出的CWR批准后才能继续返修;
8. 将杂物以及MT检测遗留的残留物清理干净。按照WPS进行预热和焊接, 预热温度为160° C-230° C;
9. 焊接后WPS要求进行后热, 后热温度为230° C-315° C, 后热时间至少1个小时;
10. 后热后将焊缝逐渐冷却到周围环境温度, 并控制冷却速率不超过50° C每小时;
11. 后热后将修补区域打磨与母材或相邻焊缝平齐;
12. 在焊缝冷却至环境温度至少经过48小时以后进行NDT检查;
13. 返修后根据图纸进行MT检测, 并按照合同10-1.59 "钢结构" 中的 "检测和试验" 要求进行附加MT检测。对于CJP焊缝, NDT为VT, MT和UT。

This document is APPROVED
State of California
DEPARTMENT OF TRANSPORTATION
Pursuant to Section 5-1.02 of the
Standard Specifications
Initial: *JW* Date: 1/13/10

1. QC and a Lead CWI shall be present, direct and supervise all grinding and welding operations during this repair to ensure the repair is per the disposition requirements
2. QC and a Lead CWI shall have an approved copy of the CWR in hand prior to the repair.
3. Remove paint $\geq 25\text{mm}$ in all direction of HAZ prior to MT.
4. Clean the excavation area of all loose debris including MT powder. Preheat to 65° C before removing cracks by grinding, repair area shall extend a minimum of 50mm beyond each end of single crack repairs.
5. If base metal is damaged by grinding, the damaged area shall be ground clean prior to performing weld repair. If gap $> 5\text{mm}$ is found during or after grinding, comply with the notification on changing fillet weld to CJP which is submitted for Engineer's review and approval form.
6. Prepare excavation in accordance with the New Repair Procedure prior to welding.
7. Before this repair, Verify with VT and MT repair areas are defects free, and also MT shall be performed on the base metal laying abroad cracks to ensure that no cracks were propagated to the base metal. Separate CWR approval is needed if cracks are found in the base metal, and only after this new CWR's approval can continue the repair.
8. Clean excavation area of all loose debris including MT powder after excavation. Preheat and weld according to repair WPS, the preheat shall between 160° C-230° C
9. Perform post weld heating according to repair WPS, the postheat shall between 230° C-315° C and for one hour minimum.
10. Allow the weld to cool to ambient temperature gradually. Control cooling rate after PWHT to no more than 50° C per hour.
11. Grind the repaired area flush with base metal or the adjacent weld after post weld heating.
12. Wait 48 hours at least after the repair area has cooled to ambient temperature before performing NDT.
13. Perform MT inspection to all repair area according to Contract Drawings along with all additional NDT required by the applicable notes Special Provision Section 10-1.59 'Steel Structure', subsection 'inspection testing'. NDT include VT, MT and UT if it is a CJP weld.

工艺:

Technical Engineer: He Xiaoli

审核:

Approved By: *[Signature]*

日期:

Date: 10.1.10



关键焊缝返修报告

Critical Welding Repair Report (CWR)

版本
Rev. No.:

0

项目名称 Project Name:	美国海湾大桥 SFOBB	部件图号 Drawing No.:	DP138	报告编号 Report No.:	B-CWR1065
合同号 Contract No.:	04-0120F4	部件名称 Item Name:	OBG GAW PLATE PANEL SPLCE	NDT 报告编号 NDT Report No.:	B787-MT-17838
项目编号 Project No.:	ZP06-787				

纠正措施:

Corrective Action to Prevent Re-occurrence:

1. 返修前, QC确认有效的预热, 以将水汽全部去除。

1. QC shall verify sufficient preheat has been applied, to remove moisture, prior to welding.

车间负责人 (Foreman): Ma Ruiquan

日期 (Date): 10.1.10

参照的WPS编号 Repair WPS No.:	WPS-345-SMAW- ^{4G(4F)} 2B(2F) -Repair	工艺员 Technologist:	He Xiaolin
返修(碳刨)前预热温度 Preheat Temperature Before Gouging:		返修的缺陷 Description of Discontinuity:	CRACK
焊前处理检查 Inspection Before Welding:	ALL	焊前预热温度 Preheat Temperature Before Welding:	181°C
最大碳刨深度 Max. Depth of Gouge:	5mm	碳刨总长 Total Length of Gouge:	250mm
焊工 Welder:	050433	焊接类型 Welding Type:	SMAW
焊接电流 Current:	170	焊接位置 Position:	4G
		焊接电压 Voltage:	25.1
		焊接速度 Speed:	107

返修后检查
Inspection After Repair:

外观检查 VT Result:	ALL	检验员 Inspector:	Shuohonghua	日期 Date:	2010.02.07
NDT复检 NDT Result:	ALL	探伤员 NDT Person:	Sunbing	日期 Date:	2010.02.07

见证:
Witness/Review:

备注:
Remark:

#R787-QCP-900

This document is APPROVED as noted
State of California
DEPARTMENT OF TRANSPORTATION
Pursuant to Section 1702 of the
Standard Specifications
Date: 4/13/10



REPORT OF MAGNETIC PARTICLE EXAMINATION
磁粉检测报告

REPORT NO. 报告编号 B787-MT-17838

DATE日期 2010.01.09

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:

DP138/DP275

CALTRANS CONTRACT NO.:

04-0120F4

REFERENCING CODE
参考规范编码

AWS D1.5-2002

6AW PLATE PANEL SPLICE
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. 28th, 2010

EQUIPMENT 设备
MT YOKE

MAGNETIZING METHOD
磁化方法

MT YOKE

MANUFACTURER 制造商
PARKER

Continuous magnetic yoke
磁轭式连续法

MODEL NO. 样式编号

B310S

CURRENT
电流

SERIAL NO. 连续编号

5395 5617 5620

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

WELDING PROCESS
焊接方法

FCAW

WELDING PROCESS
FCAW

Material & thickness
母材, 厚度

A709M-345T2-X

TYPE OF JOINT
焊缝类型

T-JOINT

18/22mm

WELD I.D.
焊缝编号

DISCONTINUITY 不连续性

INDICATION
指示

TYPE
类型

LENGTH IN mm
长度

ACCEPT
接受

REJECT
拒收

REMARKS
备注

DP138-001-187

1

LONGITUDINAL
CRACK

15

ACCEPT

REJ.

Y=0

DP138-001-188

1

LONGITUDINAL
CRACK

15

REJ.

Y=0

DP138-001-019

1

LONGITUDINAL
CRACK

20

REJ.

Y=0

DP138-001-020

1

LONGITUDINAL
CRACK

20

REJ.

Y=0

DP275A-066

1

LONGITUDINAL
CRACK

15

REJ.

Y=0

BLANK

EXAMINED BY 主检

Sun Gaochang

LEVEL-II SIGN 签名 / DATE 日期

原任经理 / QCM

REVIEWED BY 审核

LEVEL-II SIGN 签名 / DATE 日期

客户

DATE 日期

DATE 日期



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-17838R1		DATE日期 2010.02.07	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: DP138/DP275 6AW PLATE PANEL SPLICE		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-345T2-X 18/22mm	
WELDING PROCESS 焊接方法	SMAW	TYPE OF JOINT 焊缝类型	T-JOINT	

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			
DP138-001-187	1R1			ACC.		100%MT
DP138-001-188	1R1			ACC.		100%MT
DP138-001-019	1R1			ACC.		100%MT
DP138-001-020	1R1			ACC.		100%MT
DP275A-066	1R1			ACC.		100%MT

AFTER B-CWR1065-1066

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EXAMINED BY主探 Sun gong chang <i>Sun Gong Chang</i>	REVIEWED BY 审核 <i>Shuo Cheng Guo</i>
LEVEL - II SIGN 签名 / DATE日期 <i>2010.2.7</i>	LEVEL-II SIGN / DATE日期 <i>2010.2.7</i>
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-000531**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 11-Mar-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0464**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: 25-Oct-2009**Description of Non-Conformance:**

During a random Magnetic Particle (MT) verification (October 25, 2009), of welds at OBG Segment 6AW, Caltrans Quality Assurance (QA) Inspector observed two (2) Longitudinal Cracks on the Deck Panel Diaphragm to Deck Panel fillet welds measuring 40 mm and 15 mm in length. These welds were identified as DP138-001-187 and 188. ZPMC had previously MT tested and accepted these welds mentioned above.

During random MT verification (October 24, 2009) of OBG Segment 6AW, Caltrans QA observed two (2) linear Longitudinal Cracks on Deck Panel Diaphragm to Deck Panel fillet welds measuring 15mm in length each on welds DP138-001-019 and 020. These welds were previously tested and accepted by ZPMC QC MT.

Contractor's proposal to correct the problem:

Repair said indications and perform NDT required to verify weld quality

Corrective action taken:

Contractor has submitted CWR along with subsequent NDT records verifying the welds are now in conformance with Contract specifications. An internal NCR was also issued by the Contractor in regards to this issue.

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

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Reviewed By: Wahbeh,Mazen

QA Reviewer