

**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, PRC

**Report No:** NCR-000130

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

**Date:** 13-May-2008

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

**NCR #:** ZPMC-0124

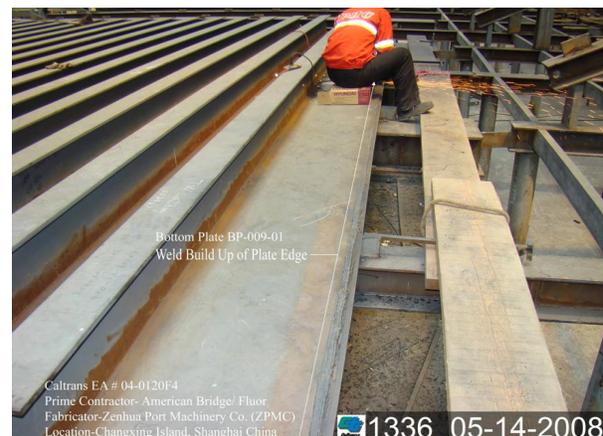
### Type of problem:

<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b> SEG-015A, BP-009-01
<b>Procedural</b>	<b>Procedural</b>	<b>Descriptor:</b>	OBG Segment Assembly, OBG Bottom Panel

**Reference Description:** Repairs to Base Metal

### Description of Non-Conformance:

The Contractor performed base metal repair without prior Engineer approval. The Contractor was observed depositing additional weld metal to (buttering) the edge of plate BP9A in order to correct insufficient plate width. It was observed that approximately 30mm of built-up weld metal extends from the plate edge along the full length of the plate. This occurred on bottom panel BP-009-01 of segment assembly SEG-015A.



### Applicable reference:

AWS D1.5, Section 3.7.4: "Prior approval of the Engineer shall be obtained for repairs to base metal...."

**Who discovered the problem:** QA Inspector Mahlon Lindenmuth

**Name of individual from Contractor notified:** ABFJV QC Inspector Mr. Steve Lawton

**Time and method of notification:** 1025 Verbal notification

**Name of Caltrans Engineer notified:** Stanley Ku

**Time and method of notification:** 5/16/08, 0900 hours, via telephone

**QC Inspector's Name:** ZPMC QC Inspector Mr. Chen Chih Meng

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**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 Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Lowry,Patrick	SMR
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<b>Reviewed By:</b>	Lowry,Patrick	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:** 19-May-2008

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

**Dear:** Mr. Charles Kanapicki

**Job Name:** SAS Superstructure

**Attention:** Mr. Dave Williams Consultant

**Document No:** 05.03.06-000105

**Subject:** NCR No. ZPMC-0124

**Reference Description:** Repairs to Base Metal

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:**

### Remarks:

The Contractor performed base metal repair without prior Engineer approval. The Contractor was observed depositing additional weld metal to (buttering) the edge of plate BP9A in order to correct insufficient plate width. It was observed that approximately 30mm of built-up weld metal extends from the plate edge along the full length of the plate. This occurred on bottom panel BP-009-01 of segment assembly SEG-015A.

### Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance to prevent future occurrences.

**Transmitted by:** Stanley Ku Sr. Bridge Engineer

**Attachments:** ZPMC-0124

**cc:** Rick Morrow, Gary Pursell, Brian Boal, Jason Tom, 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:** 05.03.06-000105

**Subject:** NCR No. ZPMC-0124

**Dated:** 05-Aug-2008

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000065 Rev: 00

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**Contractor's Proposed Resolution:**

**Reference Resolution:** NCR was not buttering but allowable weld prep.  
Please see attached.

**Submitted by:** Kanapicki, Charles  
**Attachment(s):** ABF-NPR-000065R00;

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**Caltrans' comments:**

**Status:** REJ

**Date:** 15-Sep-2008

The response is not acceptable. Step 7 of the attached Welding Repair Report states that the Contractor will "perform post NDT (VT MT UT) of repaired area to ensure sound weld metal has been deposited". Please provide the report of NDT performed after repair.

**Submitted by:** Wright, Doug  
**Attachment(s):**

**Date:** 15-Sep-2008

## DEPARTMENT OF TRANSPORTATION

CHINA FABRICATION TEAM  
506 Shangcheng Rd., Pudong New District  
Shanghai 200120, PRC



## REVIEW OF CONTRACTOR'S TRANSMITTAL

**To:** Dave Williams, American Bridge – Fluor, a Joint Venture  
Gary Pursell, Resident Engineer

**Review Date:** 07-29-2008

**From:** Ady Velasco, Structural Materials Representative

**Contract No.:** 04-0120F4

**Date/Time Submittal Received:** 07-18-2008/ 12:31

**China Standard Time**  
(GMT+08:00)

**Contractor's Transmittal #:** TL-08-1519      **Rev. #** 0

<input type="checkbox"/> substantially <b>complies</b> with contract requirements and is approved	
<input type="checkbox"/> substantially <b>complies</b> with contract requirements and is approved as noted.	
<input checked="" type="checkbox"/> Lacks sufficient information and/or contains unacceptable items that must be corrected or prior to resubmittal	
<b>Verbal Notification</b>	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <b>Date:</b> <u>7/28/2008</u> <b>Time:</b> <u>09:00</u>
<b>Name of individual from Contractor Notified:</b> <u>Nate Lindell</u>	
<b>This submittal is a:</b>	<input type="checkbox"/> <b>Welding Report</b> <input type="checkbox"/> <b>Critical Weld Repair</b> <input type="checkbox"/> <b>Request for Information</b> <input type="checkbox"/> <b>Heat Straightening Request</b> <input type="checkbox"/> <b>Fabrication Procedures</b> <input checked="" type="checkbox"/> <b>Other: <u>NCR Close Out Documents</u></b>
<b>Submitting Contractor:</b> <u>ABF</u>	
<b>ITEMS REVIEWED</b>	<b>COMPLIES</b> <b>COMMENTS</b>
1.    Response to NCR # ZPMC-0124	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No The Department acknowledges the Contractor's position. Please provide report of NDT performed after repair.

Remarks:

Reviewer: Ady Velasco *AV*

Date: 07-29-2008

Construction Concurrence: *AV* Initial *7/30/08* Date

Received by (ABFJV): *PZ* Date: *7/30/08* Time: *1250*



17 July 2008

Reply to: SL-ABF-08-0130

**Attention:** Gary Pursell

**Reference:** San Francisco Oakland Bay SAS Bridge Superstructure  
Caltrans Contract No. 04-0120F4  
ABF Job No. 660110

**Subject:** NCR# ZPMC-0124

Mr. Pursell:

This letter is issued to provide formal response addressing the proposed resolution to NCR # ZPMC-0124.

The Contractor performed base metal repair without prior Engineer approval. The Contractor was observed depositing additional weld metal to (buttering) the edge of plate BP9A in order to correct insufficient plate width. It was observed that approximately 30mm of built-up wild metal extends from the plate edge along the full length of the plate. This occurred on the bottom panel BP-009-01 of segment assembly SEG-015A.

Contrary to the reported weld buttering of 30mm, the inspector did not take into consideration that this edge was a weld prep and not a square butt weld. As shown in the sketches provided, the fabricator complied with the requirements of AWS D1.5-02 paragraph 3.3.4.1, the root opening did not exceed twice the thickness of the base metal or 20mm which ever is less nor did the thickness of weld buttering exceed this amount.

If further clarifications are needed, please contact me.

  
\_\_\_\_\_

Steve Lawton  
Foreign Quality Assurance Manager  
American Bridge Fluor Joint Venture

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> RETURNED FOR CORRECTION
Paragraph Section 5-1.02
of the Standard Specifications
State of California
DEPARTMENT OF TRANSPORTATION
Division of Engineering Service
Office of Structure Construction
Structure Representative _____
Date 7/30/08



PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 06/16/2008

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: NCR-000130FOR CLOSURE

SUBMITTED FOR YOUR APPROVAL.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE WITH NO.B-274FOR CLOSURE.
- (2) COPY OF NCR WITH NUMBER NCR-000130 (ZPMC-0124) .
- (3) COPY OF ZPMC INTERNAL NCR NCR-B-055
- (4) COPY OF RETRACTILE CWR

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:

A handwritten signature in blue ink, appearing to read "Ruby", written over a horizontal line.

PLAN HOLDER

RECEIVED 16 JUN 2008  
1503

DATE



COMPANY

<input type="checkbox"/>	APPROVED
<input type="checkbox"/>	APPROVED AS NOTED
<input checked="" type="checkbox"/>	RETURNED FOR CORRECTION
Pursuant to Section 5-1.02 of the Standard Specifications	
State of California	
DEPARTMENT OF TRANSPORTATION	
Division of Engineering Service	
Office of Structure Construction	
PHONE NO	
Structure Representative	Date 7/30/08

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



No. B-274

## LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2008-6-16

REGARDING: NCR000130 (ZPMC-0124)

With this letter of response and the attached NCR, ZPMC requests closure for NCR000130 (ZPMC-0124). There is one question in the nonconformance report that the width of grooving actually is 9mm (attachment: retractile CWR), and we have submitted that CWR for caltrans approval. But after ABF internal discussion that made a response to change a new WRR instead, and reference in the AWS D1.5, section 3.3.4.1 is make clearly for this repair case,

So ZPMC considers NCR000130 (ZPMC-0124) can be closed.

Please reference attached documentation for acceptance and closure of NCR000130 (ZPMC-0124).

**ATTACHMENT:**

NCR000130 (ZPMC-0124)

ZPMC INTERNAL WRR

THE RETRACTILE CWR

*Zhao Shuangbao*

*2008.6.16*

<input type="checkbox"/>	APPROVED
<input type="checkbox"/>	APPROVED AS NOTED
<input checked="" type="checkbox"/>	RETURNED FOR CORRECTION Pursuant to Section 5-1.02 of the Standard Specifications State of California
<b>DEPARTMENT OF TRANSPORTATION</b> Division of Engineering Service Office of Structure Construction	
Structure Representative	<i>7/30/08</i> Date



# 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-000130 (ZPMC-0124)  
 NCR 编号: NCR-B-055

Item: base metal repair without engineer approval  
 名称描述: 无工程师批准的母材返修

Item Number: BP009-01  
 件号: BP009-01

Drawing Number: SEG-015A  
 图号: SEG-015A

Location: OBG assembly shop  
 位置: 桥面拼装车间

Date: 2008-5-13  
 日期: 2008-5-13

### Description of Nonconformance:

#### 不符合项状态描述:

The Contractor performed base metal repair without prior Engineer approval. The Contractor was observed depositing additional weld metal to (buttering) the edge of plate BP9A in order to correct insufficient plate width. It was observed that approximately 30mm of built-up weld metal extends from the plate edge along the full length of the plate. This occurred on bottom panel BP009-01 of segment assembly SEG-015A.

ZPMC 没有得到工程师的批准就进行母材返修. ZPMC 对板 BP9A 的边缘进行堆焊, 为了弥补板宽度的不足. 大约从板的边缘在全长度上堆了 30 毫米. 这是发生在节段装配 SEG-015A 的底板 BP009-01 上.

Work By: Bei wei cheng Prepared by: Imuberg Reviewed by QCE: Zhaoshuangbao  
 施工方: 2008.6.14 准备: 2008.5.29 质量工程师批准: 2008.6.13

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

Disposition:  Use as is     Repair     Reject  
 处理措施:    回用    返修    拒收

### Recommendation:

建议: NA

Prepared by: Li Guang Bin Approved by QCA: \_\_\_\_\_  
 准备: 08.14/6 质量经理批准

### Reason for Nonconformance:

不符合原因: NA

预防措施

Approved by/批准: Li Guang Bin 08.14/6

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  
根据 B-WK 33 的反馈信息进行堆焊. 因在板反面坡口长度 12mm 以及钢衬垫与底板重合 4mm 工艺要求堆焊后比实际尺寸大 5-6mm, 故堆焊后实际测量尺寸为 30mm.

Reviewed /批准: Li Guang Bin 08.14/6

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  
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: 19-May-2008

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

Dear: Mr. Charles Kanapicki  
Attention: Mr. Dave Williams Consultant  
Subject: NCR No. ZPMC-0124

Job Name: SAS Superstructure  
Document No: 05.03.06-000105

Reference Description: Repairs to Base Metal

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:

### Remarks:

The Contractor performed base metal repair without prior Engineer approval. The Contractor was observed depositing additional weld metal to (buttering) the edge of plate BP9A in order to correct insufficient plate width. It was observed that approximately 30mm of built-up weld metal extends from the plate edge along the full length of the plate. This occurred on bottom panel BP-009-01 of segment assembly SEG-015A.

### Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance to prevent future occurrences.

Transmitted by: Stanley Ku Sr. Bridge Engineer

Attachments: ZPMC-0124

cc: Rick Morrow, Gary Pursell, Brian Boal, Jason Tom, Ching Chao

File: 05.03.06

NA

05.03.06-000105.NCT

**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, PRC

Report No: NCR-000130

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 13-May-2008

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

NCR #: ZPMC-012

### Type of problem:

Welding  Concrete  Other   
 Welding  Curing  Procedural  Bridge No: 34-0006  
 Joint fit-up  Coating  Other  Component: SEG-015A, BP-009-01  
 Procedural  Procedural  Description: OBG Segment Assembly, OBG Bottom Panel

Reference Description: Repairs to Base Metal

### Description of Non-Conformance:

The Contractor performed base metal repair without prior Engineer approval. The Contractor was observed depositing additional weld metal to (buttering) the edge of plate BP9A in order to correct insufficient plate width. It was observed that approximately 30mm of built-up weld metal extends from the plate edge along the full length of the plate. This occurred on bottom panel BP-009-01 of segment assembly SEG-015A.



### Applicable reference:

AWS D1.5, Section 3.7.4: "Prior approval of the Engineer shall be obtained for repairs to base metal...."

Who discovered the problem: QA Inspector Mahlon Lindenmuth

Name of individual from Contractor notified: ABFJV QC Inspector Mr. Steve Lawton

Time and method of notification: 1025 Verbal notification

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: 5/16/08, 0900 hours, via telephone

QC Inspector's Name: ZPMC QC Inspector Mr. Chen Chih Meng

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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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 Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

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Inspected By:      Lowry,Patrick      SMR

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Reviewed By:      Lowry,Patrick      SMR

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## TRANSMITTAL LETTER

PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 05/08/2008

TO: RUBY LI/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: B-CWR086

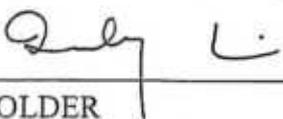
REQUEST FOR REVIEW & SUBMITTAL TO CALTRANS.

ENCLOSED WITH THIS TRANSMITTAL IS

(1) ONE COPY OF B-CWR086

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:

  
 \_\_\_\_\_  
 PLAN HOLDER

RECEIVED 08 MAY 2008  
 1612  
 \_\_\_\_\_  
 DATE

  
 \_\_\_\_\_  
 COMPANY

\_\_\_\_\_  
 PHONE NO.

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



# 关键焊缝返修报告

版本 Rev. No.

Critical Welding Repair Report(CWR)

0

项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No	SEG15A	报告编号 Report No.	B-CWR086
合同号 Contract No.:	04-0120F4	部件名称 Items Name	BP9A	NDT报告编号 Report No.of NDT	
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述:

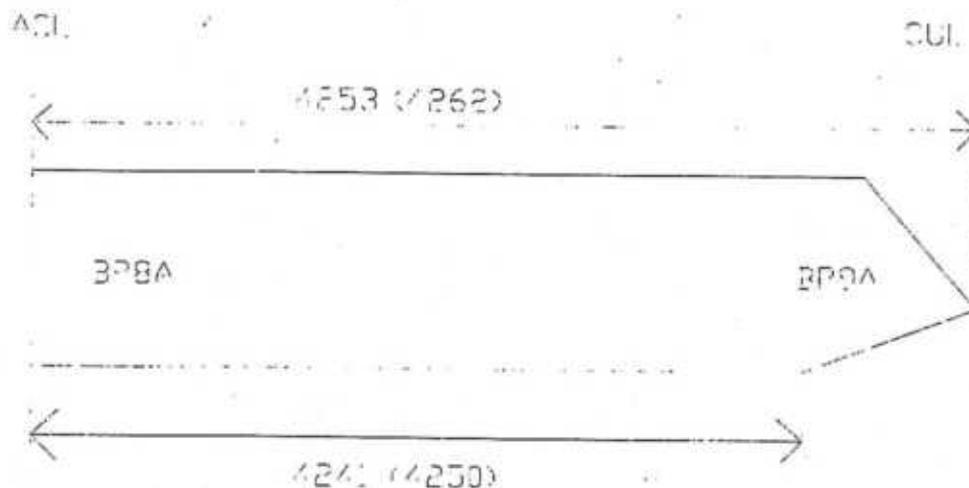
**Description of welding discontinuity:**

胡同兴施工队制作的西线3B节段D6型底板BP9A, 如下图所示ACL控制线到余量修割线为4250mm、4262mm。由于切割错误导致多切割9mm, 实际测量为4241mm、4253mm。

When fabrication West 3B segment type D6 bottom BP9A, per error cutting, it should be 4250mm and 4260mm from Assembly Control Line (ACL) to Cut Line (CUL), but it is only 4241mm and 4253mm.

检验员 (Inspector): Shen Fuyou 日期(Date): 2008.05.05

焊缝返修位置示意图:

**Draft of welding discontinuity:**

产生原因:

由于切割工粗心大意导致余量切割错误。

Due to cutting operator careless causing the residue cutting error.

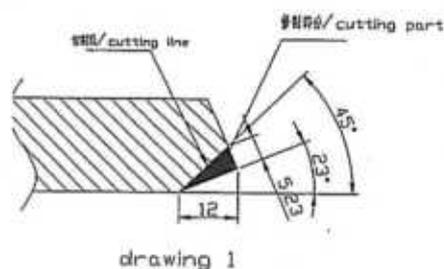
车间负责人(Foreman): Li Dongliang 日期(Date): 2008.05.07

处理意见

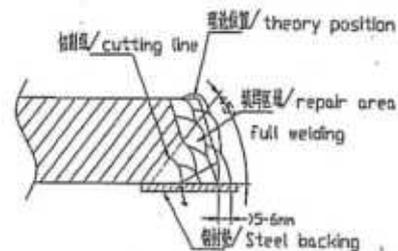
Disposition:

1. 沿着图一所示切割线将母材下半部分割除;
2. 准备一个正确的接头形式, 具体参照相应的WPS;
3. 对修补区域进行VT/MT检测;
4. 按照图二所示加钢衬垫, 具体要求参见AWS D1.5.3.13;
5. 根据返修的焊接返修工艺规程(WPS)进行预热及焊接, 焊后尺寸要比实际尺寸大5-6mm;
6. 去除钢衬垫, 将修补焊缝打磨至与周围母材平齐;
7. 对返修区域做NDT (MT UT) 以保证金属融合的深度;
8. 按照图纸要求重新开制坡口。

附图形式:



drawing 1



drawing 2

1. Trim the bellow part of the metal along cutting line (for drawing 1) according to the attached drawing and grind the cutting line smoothly;
2. Prepare excavation according to the relevant WPS;
3. Verify with VT/MT repair area is free of all defects.
4. Add steel backing according to the attached drawing 2 (refer to AWS D1.5.3.13);
5. Preheat and weld according to the relevant WPS and dimension of lineament is more than 5-6mm necessary actual dimension;
6. Remove the steel backing and grind the weld flush with around metal;
7. Perform post NDT (VT MT UT) of repaired area to insure sound weld metal has been deposited.
8. Prepare an groove again according to the shop drawings

工艺: *Niu Hui-feng*  
Technical engineer:

审核:  
Approved by

日期: *08.15.07*  
Date:



# 关键焊缝返修报告

版本 Rev. No.

Critical Welding Repair Report(CWR)

0

项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No.	SEG15A	报告编号 Report No.	B-CWR086
合同号 Contract No.:	04-0120F4	部件名称 Items Name	BP9A	NDT报告编号 Report No.of NDT	
项目编号 Project No.:	ZP06-787				

纠正措施:

**Correction action to prevent re occurrence;**

不断提高操作工的责任心, 要求所有操作工严格按照余量线进行切割。

Improve the operator responsibility and perform cutting according to the residue controlling line.

车间负责人(Foreman) *Dongling* 日期(Date): 2008.15.07

参照的WPS编号 Repair WPS No.	WPS-B-P-2212-B -U2a-1 WPS-345-SMAW-1 G(1F)-Repair WPS-345-FCAW-1 G(1F)-Repair-1	工艺员 technologist	<i>Nimtafeng</i>
返修(碳刨)前预热温度 Preheat temperature before gouging		返修的缺陷 Description of discontinuity	
焊前处理检查 Inspection before welding		焊前预热温度 Preheat temperature before welding	
最大碳刨深度 Max. depth of gouging		碳刨总长 Total length of gouging	
焊工 welder	焊接类型 welding type	焊接位置 position	
焊接电流 Current	焊接电压 Voltage	焊接速度 Speed	
返修后检查 Inspection After repairing:			
外观检查 VT result	检验员 Inspector	日期 Date	
NDT复检 NDT result	探伤员 NDT person	日期 Date	
见证: Witness/Review:			
备注: Remark:			

#R787-QCP-900



# 焊缝返修报告

## Welding Repair Report

版本 Rev. No.

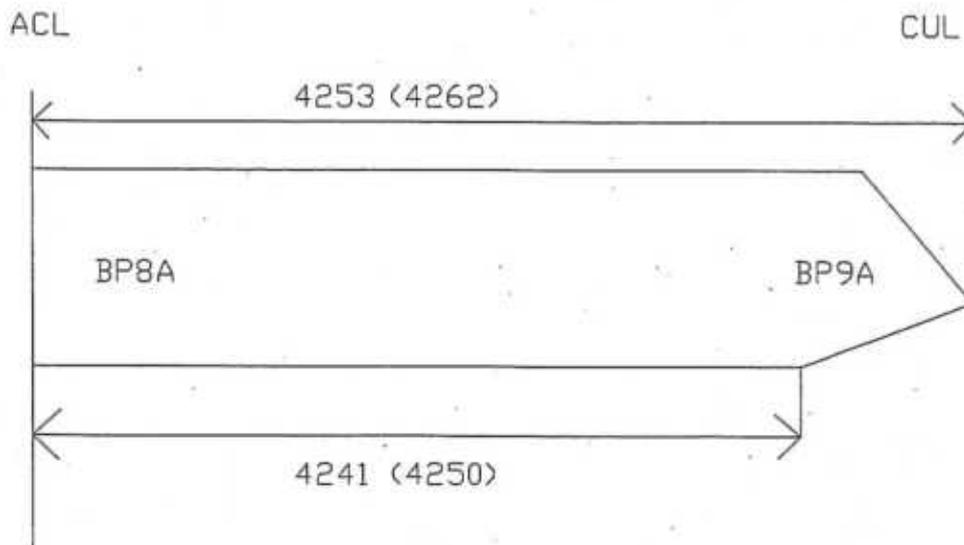
0

项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No	SEG15A	报告编号 Report No.	B-WR337
合同号 Contract No.:	04-0120F4	部件名称 Items Name	BP9A	NDT报告编号 Report No.of NDT	
项目编号 Project No.:	ZP06-787				

**焊缝缺陷描述:****Description of welding discontinuity:**

胡国兴施工队制作的西线3B节段D6型底板BP9A, 如下图所示ACL控制线到余量修割线为4250mm、4262mm, 由于切割错误导致多切割9mm, 实际测量为4241mm、4253mm。

When fabrication West 3B segment type D6 bottom BP9A, per error cutting, it should be 4250mm and 4260mm from Assembly Control Line (ACL) to Cut Line (CUL), but it is only 4241mm and 4253mm.

检验员 (Inspector): ShenFuyou 日期(Date): 2008.05.05**焊缝返修位置示意图:****Draft of welding discontinuity:**

产生原因:

由于切割工粗心大意导致余量切割错误。

Due to cutting operator careless causing the residue cutting error.

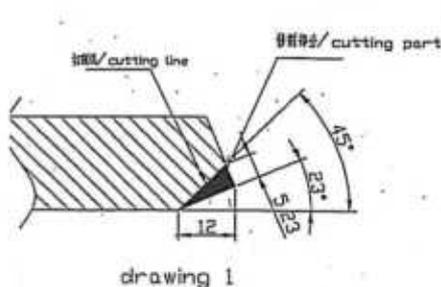
车间负责人(Foreman): *Li Dong Liang* 日期(Date): *2008.05.11*

处理意见

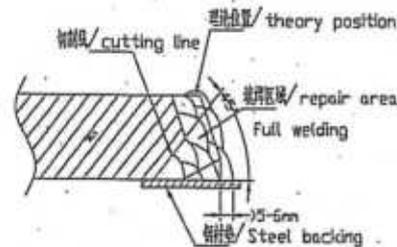
Disposition :

1. 沿着图一所示切割线将母材下半部分割除;
2. 准备一个正确的接头形式, 具体参照相应的WPS;
3. 对修补区域进行VT/MT检测;
4. 按照图二所示加钢衬垫, 具体要求参见AWS D1.5.3.13;
5. 根据返修的焊接返修工艺规程(WPS)进行预热及焊接, 焊后尺寸要比实际尺寸大5-6mm;
6. 去除钢衬垫, 将修补焊缝打磨至与周围母材平齐;
7. 对返修区域做NDT (MT UT) 以保证金属融合的深度;
8. 按照图纸要求重新开制坡口。

附图形式:



drawing 1



drawing 2

1. Trim the bellow part of the metal along cutting line (for drawing 1) according to the attached drawing and grind the cutting line smoothly;
2. Prepare excavation according to the relevant WPS;
3. Verify with VT/MT repair area is free of all defects.
4. Add steel backing according to the attached drawing 2 (refer to AWS D1.5.3.13);
5. Preheat and weld according to the relevant WPS and dimension of lineament is more than 5-6mm necessary actual dimension;
6. Remove the steel backing and grind the weld flush with around metal;
7. Perform post NDT (VT MT UT) of repaired area to insure sound weld metal has been deposited.
8. Prepare an groove again according to the shop drawings

工艺: *Niu Tiefeng*  
Technical engineer:

审核: *Hu Kang*  
Approved by

日期: *08.05.11*  
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.	SEG15A	报告编号 Report No.	B-WR337
合同号 Contract No.:	04-0120F4	部件名称 Items Name	BP9A	NDT报告编号 Report No. of NDT	
项目编号 Project No.:	ZP06-787				

纠正措施:

Correction action to prevent re occurrence;

不断提高操作工的责任心, 要求所有操作工严格按照余量线进行切割。

Improve the operator responsibility and perform cutting according to the residue controlling line.

车间负责人(Foreman): *Li Yong Long* 日期(Date): 2008.5.11

参照的WPS编号 Repair WPS No.	WPS-B-P-2212-B -U2a-1 WPS-345-SMAW-1 G(1F)-Repair WPS-345-FCAW-1 G(1F)-Repair-1	工艺员 technologist	<i>Niatarefeng</i>
返修(碳刨)前预热温度 Preheat temperature before gouging	NA	返修的缺陷 Description of discontinuity	NA
焊前处理检查 Inspection before welding	Acc	焊前预热温度 Preheat temperature before welding	750
最大碳刨深度 Max. depth of gouging	NA	碳刨总长 Total length of gouging	NA
焊工 welder	<i>Jiang Yang sheng</i> 045240	焊接类型 welding type	FCAW
焊接电流 Current	255A	焊接电压 Voltage	29V
		焊接位置 position	1G
		焊接速度 Speed	295 mm/min
返修后检查 Inspection After-repairing:			
外观检查 VT result	Acc	检验员 Inspector	<i>C. M. Chen</i> 03110711
NDT复检 NDT result	ALL ALL	探伤员 NDT person	<i>Xue Hui</i> <i>Botin</i>
日期 Date		日期 Date	2008.5.15 2008.05.21 2008.5.27
见证: Witness/Review:			
备注: Remark:			

#R787-QCP-900

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000105

**Subject:** NCR No. ZPMC-0124

**Dated:** 01-Oct-2008

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000065 **Rev:** 01

---

### Contractor's Proposed Resolution:

**Reference Resolution:** APPROVED, ACTION PENDING should be an option for those NCRs where Caltrans agrees with our proposed resolution but where the actual corrective action and/or supporting documentation is forthcoming.

ABFJV respectfully requests that the status of this NCR be changed to APPROVED, ACTION PENDING

It appears from the response that the Department agrees with ABFJV's proposed resolution and will close the NCR when the acceptable documentation is submitted. Therefore, ABFJV respectfully requests that the status of this NCR be changed to APPROVED, ACTION PENDING.

**Submitted by:** Kanapicki, Charles

**Attachment(s):** ABF-NPR-000065R01

---

### Caltrans' comments:

**Status:** AAP

**Date:** 02-Oct-2008

The response is acceptable, but the Non-Conformance is not closed.

Please provide documentation of the weld repairs that were performed and that the repairs were acceptable. The Department will review the Contractor's proposal to close Non-Conformance ZPMC-0124 at that time.

**Submitted by:** Wright, Doug

**Date:** 02-Oct-2008

**Attachment(s):** NPR CT Comments

## NCR PROPOSED RESOLUTION

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

**Dated:** 18-Nov-2008

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

**Attention:** Pursell, Gary  
Resident Engineer

**Job Name:** SAS Superstructure

**Ref:** 05.03.06-000105

**Document No.:** ABF-NPR-000065 **Rev:** 02

**Subject:** NCR No. ZPMC-0124

---

**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC requests closure of this NCR based on the attached documentation.

ZPMC requests closure of this NCR based on the attached documentation.

**Submitted by:**

**Attachment(s):** close-out document; ABF-NPR-000065R02

---

**Caltrans' comments:**

**Status:** CLO

**Date:** 20-Nov-2008

The proposed resolution is acceptable. The weld in question has been accepted as shown in the attached MT and UT reports. The Department concurs that Non-Conformance ZPMC-0124 is closed.

**Submitted by:** Wright, Doug

**Date:** 20-Nov-2008

**Attachment(s):**



## TRANSMITTAL LETTER

PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 11/15/2008

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: CALTRANS NCR FOR CLOSURE

SUBMITTED FOR YOUR APPROVAL.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE WITH NO.B-284R1 FOR CLOSURE.
- (2) COPY OF NCR WITH NUMBER NCR-000130(ZPMC-0124).
- (3) COPY OF WELDING REPAIR REPORT
- (4) COPY OF THE UT AND MT REPORT FOR THE REPAIR AREA

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:

J. David [Signature]  
PLAN HOLDER

11-15-08  
DATE

ABF  
COMPANY

PHONE NO.

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



No. B-284R1

## LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2008-11-15

REGARDING: NCR-000130 (ZPMC-0124)

With this letter of response, ZPMC requests closure for Caltrans NCR-000130 (ZPMC-0124). We agree what describe in the non-conformance report, As the comments from caltrans, we provide the documentation of the weld repairs that were performed and that the repairs were acceptable.

So ZPMC considers NCR-000130 (ZPMC-0124) can be closed.

Please check the attached documentation for acceptance and close the NCR-000130 (ZPMC-0124).

**ATTACHMENT:**

NCR-000130 (ZPMC-0124)

The weld repair report

The UT and MT report for the repair area

*Chao Shuangbo*

*2008.11.15*

*W. W. [Signature]*  
ABF QCM  
17 NOV. 08



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: 19-May-2008  
 Contract No: 04-0120F4  
 04-SF-80-13.2 / 13.9  
 Job Name: SAS Superstructure  
 Document No: 05.03.06-000105

Dear: Mr. Charles Kanapicki  
 Attention: Mr. Dave Williams Consultant  
 Subject: NCR No. ZPMC-0124  
 Reference Description: Repairs to Base Metal

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

**Remarks:**

The Contractor performed base metal repair without prior Engineer approval. The Contractor was observed depositing additional weld metal to (buttering) the edge of plate BP9A in order to correct insufficient plate width. It was observed that approximately 30mm of built-up weld metal extends from the plate edge along the full length of the plate. This occurred on bottom panel BP-009-01 of segment assembly SEG-015A.

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

Propose a resolution for the identified non-conformance to prevent future occurrences.

Transmitted by: Stanley Ku Sr. Bridge Engineer  
 Attachments: ZPMC-0124

cc: Rick Morrow, Gary Pursell, Brian Boal, Jason Tom, Ching Chao  
 File: 05.03.06

NA

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: SE/ALA Rte: 80 PM: 13.2/13.9  
File #: 69.25B

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, PRC

Report No: NCR-000130

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 13-Mar

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

NCR #: ZPM

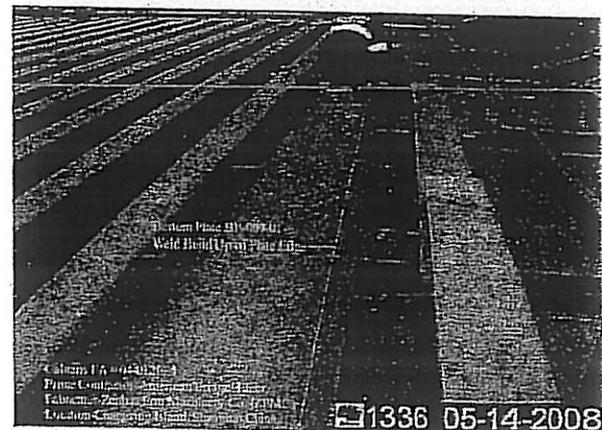
### Type of problem:

Welding  Concrete  Other   
Welding  Curing  Procedural  Bridge No: 34-0006  
Joint fit-up  Coating  Other  Component: SEG-015A, BP-009-01  
Procedural  Procedural  Descriptor: OBG Segment Assembly, OBG Bottom Panel

Reference Description: Repairs to Base Metal

### Description of Non-Conformance:

The Contractor performed base metal repair without prior Engineer approval. The Contractor was observed depositing additional weld metal to (buttering) the edge of plate BP9A in order to correct insufficient plate width. It was observed that approximately 30mm of built-up weld metal extends from the plate edge along the full length of the plate. This occurred on bottom panel BP-009-01 of segment assembly SEG-015A.



### Applicable reference:

AWS D1.5, Section 3.7.4: "Prior approval of the Engineer shall be obtained for repairs to base metal..."

Who discovered the problem: QA Inspector Mahlon Lindenmuth

Name of individual from Contractor notified: ABFJV QC Inspector Mr. Steve Lawton

Time and method of notification: 1025 Verbal notification

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: 5/16/08, 0900 hours, via telephone

QC Inspector's Name: ZPMC QC Inspector Mr. Chen Chih Meng

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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( Continued Page 2 of 2 )

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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 Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

---

Inspected By:      Lowry,Patrick

SMR

---

Reviewed By:      Lowry,Patrick

SMR



# 焊缝返修报告

版本 Rev.

## Welding Repair Report

0

项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No	SEG15A	报告编号 Report No.	B-WR337
合同号 Contract No.:	04-0120F4	部件名称 Items Name	BP9A	NDT报告编号 Report No. of NDT	
项目编号 Project No.:	ZP06-787				

### 焊缝缺陷描述:

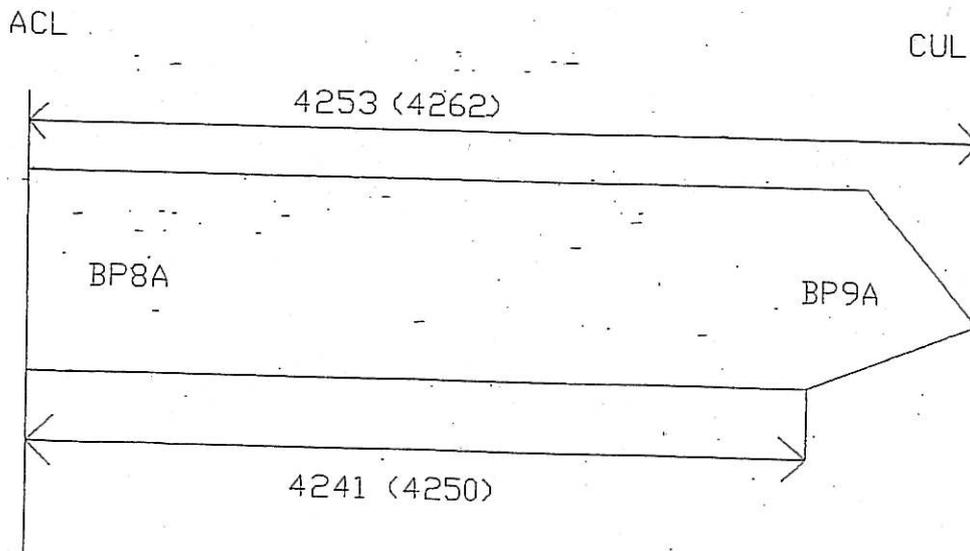
#### Description of welding discontinuity:

胡国兴施工队制作的西线3B节段D6型底板BP9A, 如下图所示ACL控制线到余量修割线为4250mm、2mm, 由于切割错误导致多切割9mm, 实际测量为4241mm、4253mm。  
When fabrication West 3B segment type D6 bottom BP9A, per error cutting, it should be 4250mm and 4260mm from Assembly Control Line (ACL) to Cut Line (CUL), but it is only 4241mm and 4253mm.

检验员 (Inspector): ShenFuyou 日期(Date): 2008.05.05

### 焊缝返修位置示意图:

#### Draft of welding discontinuity:



产生原因:

由于切割工粗心大意导致余量切割错误。

Due to cutting operator careless causing the residue cutting error.

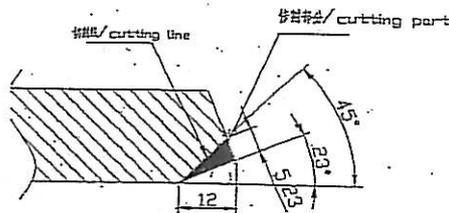
车间负责人(Foreman): Li Dong Wang 日期(Date): Jun 05. 11

处理意见

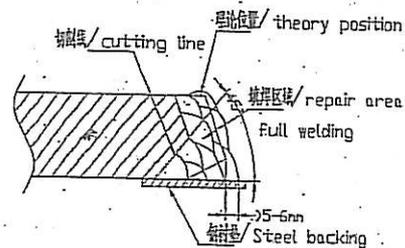
Disposition :

1. 沿着图一所示切割线将母材下半部分割除;
2. 准备一个正确的接头形式, 具体参照相应的WPS;
3. 对修补区域进行VT/MT检测;
4. 按照图二所示加钢衬垫; 具体要求参见AWS D1.5.3.13;
5. 根据返修的焊接返修工艺规程(WPS)进行预热及焊接, 焊后尺寸要比实际尺寸大5-6mm;
6. 去除钢衬垫, 将修补焊缝打磨至与周围母材平齐;
7. 对返修区域做NDT (MT UT) 以保证金属融合的深度;
8. 按照图纸要求重新开制坡口。

附图形式:



drawing 1



drawing 2

1. Trim the bellow part of the metal along cutting line (for drawing 1) according to the attached drawing and grind the cutting line smoothly;
2. Prepare excavation according to the relevant WPS;
3. Verify with VT/MT repair area is free of all defects.
4. Add steel backing according to the attached drawing 2 (refer to AWS D1.5.3.13);
5. Preheat and weld according to the relevant WPS and dimension of lineament is more than 5-6mm necessary actual dimension;
6. Remove the steel backing and grind the weld flush with around metal;
7. Perform post NDT (VT MT UT) of repaired area to insure sound weld metal has been deposited.
8. Prepare an groove again according to the shop drawings

工艺: Niu tiefeng  
Technical engineer:

审核: Hu Guang  
Approved by

日期: 06.05.11  
Date:



# 焊缝返修报告

## Welding Repair Report

版本 Rev. N

0

项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No.	SEG15A	报告编号 Report No.	B-WR337
合同号 Contract No.:	04-0120F4	部件名称 Items Name	BP9A	NDT报告编号 Report No. of NDT	
项目编号 Project No.:	ZP06-787				

**纠正措施:**

**Correction action to prevent re occurrence;**

不断提高操作工的责任感, 要求所有操作工严格按照余量线进行切割。

Improve the operator responsibility and perform cutting according to the residue controlling line.

车间负责人(Foreman): *Jiang Yang* 日期(Date): 2008.5.11

参照的WPS编号 Repair WPS No.	WPS-B-P-2212-B -U2a-1 WPS-345-SMAW-1 G(1F)-Repair WPS-345-FCAW-1 G(1F)-Repair-1	工艺员 technologist	
返修(碳刨)前预热温度 Preheat temperature before gouging	NA	返修的缺陷 Description of discontinuity	NA
焊前处理检查 Inspection before welding	Acc	焊前预热温度 Preheat temperature before welding	750
最大碳刨深度 Max. depth of gouging	NA	碳刨总长 Total length of gouging	NA
焊工 welder	<i>Jiang Yang sheng</i> 045240	焊接类型 welding type	FCAW
焊接电流 Current	255A	焊接电压 Voltage	29V
		焊接位置 position	1G
		焊接速度 Speed	4.95 mm/min
<b>返修后检查</b> Inspection After repairing:			
外观检查 VT result	Acc	检验员 Inspector	<i>C. M. Chen</i> 03110711
		日期 Date	2008.5.15
NDT复检 NDT result	VT ACC AZ2	探伤员 NDT person	<i>Xue Hua</i> BOTINCA
		日期 Date	2008.05.21 2008.5.27
见证: Witness/Review:			
备注: Remark:			



# REPORT OF ULTRASONIC EXAMINATION

## UT探伤报告

REPORT NO.报告编号 B787-UT-897

DATE 2008.05.18

PAGE 1 OF 1

Revision No: 0

PROJECT NO.:工程编号 ZP06-787

CONTRACTOR: CALTRANS

ITEMS NAME: OBG PLATE PANEL SPLICE  
部件名称

DRAWING NO.:SEG15A  
图号

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  
FCAW

JOINT TYPE焊缝类型  
N/A

CALIBRATION DUE DATE 仪器校正有效期  
Dec. 28, 2008

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, 06149581  
070152011,

CALIBRATION BLOCK 试块  
AWS IIW BLOCK TYPE II

COUPLANT 耦合剂  
C.M.C

MATERIAL/THICKNESS 材料厚度  
A709M-345T2-X /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	0°	2.5 MHz	20 mm	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							
BP9A		0				15									ACC. Base metal per B-WR33

BLANK

EXAMINED BY 主探

REVIEWED BY 审核:

LEVEL-II 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 MAGNETIC PARTICLE EXAMINATION

## 磁粉检测报告

REPORT NO. 报告编号 B787-MT-1340		DATE日期 2008.05.20	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: SEG15A 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		
EQUIPMENT 设备 MT YOKE		MANUFACTURER 制造商 PARKER		MODEL NO. 样式编号 B310S		
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 20mm		
WELDING PROCESS 焊接方法		SMAW		TYPE OF JOINT 焊缝类型 N/A		
WELD I.D. 焊缝编号	DISCONTINUITY不连续线			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
BP9A				ACC.		Base metal per B-WR337
BLANK						
EXAMINED BY主探			REVIEWED BY 审核			
<u>Bo Tin rui</u> 2008.05.20 LEVEL - II SIGN 签名 / DATE日期			<u>Li Cuming</u> 2008.05.20 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			

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
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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, PRC**Report No:** NCS-000162**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 31-Dec-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0124**Type of problem:**

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

**Date the Non-Conformance Report was written:** 13-May-2008**Description of Non-Conformance:**

The Contractor performed base metal repair without prior Engineer approval. The Contractor was observed depositing additional weld metal to (buttering) the edge of plate BP9A in order to correct insufficient plate width. It was observed that approximately 30mm of built-up weld metal extends from the plate edge along the full length of the plate. This occurred on bottom panel BP-009-01 of segment assembly SEG-015A.

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

Repair according to CWR B-WR337R0

**Corrective action taken:**

The weld has been repaired and accepted as verified by NDT results.

**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 Eric Tsang, +(86) 150.0042.2372, who represents the Office of Structural Materials for your project.

**Inspected By:** Tsang, Eric

Quality Assurance Inspector

**Reviewed By:** Wahbeh, Mazen

QA Reviewer