

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



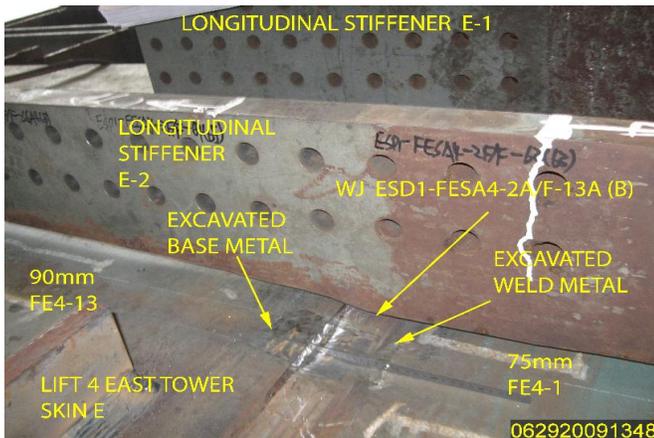
Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-000336**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 29-Jun-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0310**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> East Tower, Lift 4, Skin E
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b> East Tower, Lift 4, Skin E	

**Reference Description:** Base metal gouges in East Tower, Lift 4, Skin Plate E to aid longitudinal stiffener fit-up**Description of Non-Conformance:**

During in-process inspection of Lift 4, East Tower, Skin E, QA randomly observed two excavations at weld joint ESD1-FESA4-2A/F-13A(B) between 90mm plate FE4-13 and 75mm plate FE4-1. The excavations were made in the base and weld metals to allow for fit up of Longitudinal Stiffeners E1 and E2 to Skin Plate E. The repair procedure was not submitted nor approved by the Engineer at the time of repair.

**Applicable reference:**

Special Provisions Section 8.3 - "The Engineer shall be notified immediately in writing when welding problems, deficiencies, base metal repairs or any other type of repairs not submitted in the WQCP are discovered and also of the proposed repair procedures to correct them...No remedial work shall begin until the repair procedures are approved in writing by the Engineer."

**Who discovered the problem:** Charles Franco**Name of individual from Contractor notified:** Man Kam Hon

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Time and method of notification:** 6/29/2009, 16:00; Verbal

**Name of Caltrans Engineer notified:** Scott Kennedy

**Time and method of notification:** 6/29/2009, 14:00; Verbal

**QC Inspector's Name:** Li Xiu Yang

**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 Serge Sinevod, 134-8257-0045, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Sinevod,Serge	ASMR
<b>Reviewed By:</b>	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**

<b>To:</b>	AMERICAN BRIDGE/FLUOR, A JV 375 BURMA ROAD OAKLAND CA 95607	<b>Date:</b>	01-Jul-2009
<b>Dear:</b>	Mr. Charles Kanapicki	<b>Contract No:</b>	04-0120F4 04-SF-80-13.2 / 13.9
<b>Attention:</b>	Mr. Thomas Nilsson Project/Fabrication Manager	<b>Job Name:</b>	SAS Superstructure
<b>Subject:</b>	NCR No. ZPMC-0310	<b>Document No:</b>	05.03.06-000299
<b>Reference Description:</b>	Base Metal / East Shaft Lift 4 Skin Plate E / Longitudinal Stiffener Fit-Up		

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:** Tower **Lift:** 04

**Remarks:**

During in-process inspection of Lift 4, East Tower, Skin E, QA randomly observed two excavations at weld joint ESD1-FESA4-2A/F-13A(B) between 90mm plate FE4-13 and 75mm plate FE4-1. The excavations were made in the base and weld metals to allow for fit up of Longitudinal Stiffeners E1 and E2 to Skin Plate E. The repair procedure was not submitted nor approved by the Engineer at the time of repair.

Special Provisions Section 8.3 - "The Engineer shall be notified immediately in writing when welding problems, deficiencies, base metal repairs or any other type of repairs not submitted in the WQCP are discovered and also of the proposed repair procedures to correct them...No remedial work shall begin until the repair procedures are approved in writing by the Engineer."

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

While a CWR has been received subsequent to verbal notification of the occurrence, propose a resolution for the identified non-conformance that addresses both the procedures to minimize the repairs of the base metal and the corrective actions to be taken to ensure that the repairs performed are in compliance with the contract documents.

In addition to the material/workmanship non-conformance, address the failure of Quality Control to prevent the repairs/modification of the base metal without the approval of the Engineer and the steps taken by the welding Quality Control Manager to prevent future occurrences.

**Transmitted by:** Scott Kennedy Sr. Bridge Engineer

**Attachments:** ZPMC-0310

**cc:** Rick Morrow, Gary Pursell, Mark Woods, Doug Coe

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000299

**Subject:** NCR No. ZPMC-0310

**Dated:** 13-Jul-2009

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000261 **Rev:** 00

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**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC has responded to the NCR and has attached the necessary documents for closure. ZPMC requests closure of this NCR.

ZPMC has responded to the NCR and has attached the necessary documents for closure. ZPMC requests closure of this NCR.

**Submitted by:**

**Attachment(s):** ABF-NPR-000261R00;

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**Caltrans' comments:**

**Status:** AAP

**Date:** 05-Aug-2009

The response is acceptable, but the Non-Conformance is not closed. The attachment did not include any inspection documentation for the weld in question.

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-0310 at that time.

**Submitted by:** Wright, Doug

**Date:** 05-Aug-2009

**Attachment(s):**



No. T-034

## LETTER OF RESPONSE

**TO: American Bridge/Flour JV**

**DATE: 2009-7-6**

**REGARDING: NCR-000336 ZPMC-0310**

ZPMC received NCR-000336(ZPMC-0310), the original contents is: "During in process inspection of lift 4, East tower skin e QA randomly observed two excavations at weld joint esd1-fesa4-2a/f-13a(b) between 90mm plate FE4-13 and 75mm plate FE4-1. The excavations were made in the base and weld metals to allow for fit up of longitudinal stiffeners E1 and E2 to skin plate E. The repair procedure was not submitted nor approved by the Engineer at the time of repair."

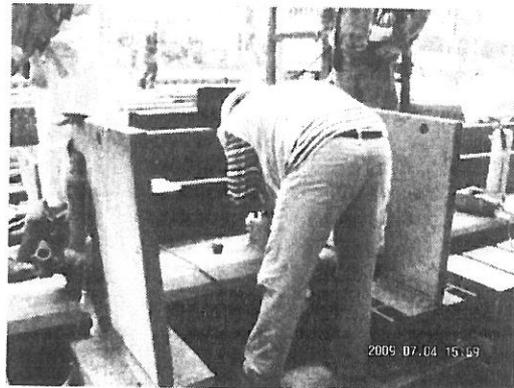
About this situation Charles Franco found this problem, and then we issued the T-CWI171 approved by the CT engineer, and we did the MT and UT work about the repair work. And the CT inspector Baskar did the inspection about the MT and the UT work (see attachment photos) to make sure no problem.

So ZPMC hope Caltrans can take a review and close this NCR.

**ATTACHMENT:**

**NDT INSPECTION NOTIFICATION SHEET 3590**

**T-CWR171**



**APPLICATION FORM FOR BASE MATERIAL NDT 1955**

*Li Xinyang*

07. 7. 6

**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-000336

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

**Date:** 29-Jun-2009

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

**NCR #:** ZPMC-0310

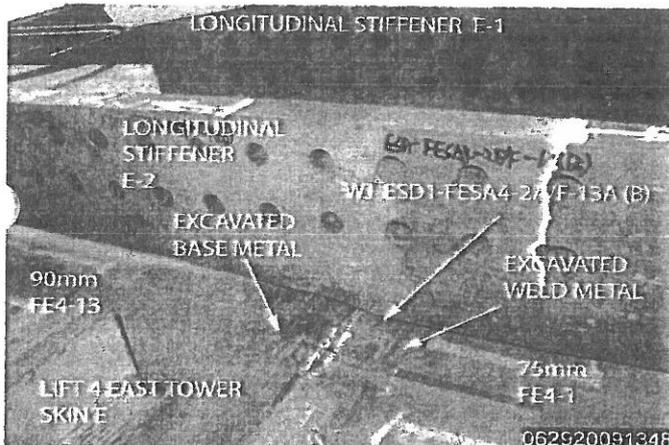
### Type of problem:

Welding  Concrete  Other   
 Welding  Curing  Procedural  **Bridge No:** 34-0006  
 Joint fit-up  Coating  Other  **Component:** East Tower, Lift 4, Skin E  
 Procedural  Procedural  **Description:** East Tower, Lift 4, Skin E

**Reference Description:** Base metal gouges in East Tower, Lift 4, Skin Plate E to aid longitudinal stiffener fit-up

### Description of Non-Conformance:

During in-process inspection of Lift 4, East Tower, Skin E, QA randomly observed two excavations at weld joint ESD1-FESA4-2A/F-13A(B) between 90mm plate FE4-13 and 75mm plate FE4-1. The excavations were made in the base and weld metals to allow for fit up of Longitudinal Stiffeners E1 and E2 to Skin Plate E. The repair procedure was not submitted nor approved by the Engineer at the time of repair.



### Applicable reference:

Special Provisions Section 8.3 - "The Engineer shall be notified immediately in writing when welding problems, deficiencies, base metal repairs or any other type of repairs not submitted in the WQCP are discovered and also of the proposed repair procedures to correct them...No remedial work shall begin until the repair procedures are approved in writing by the Engineer."

**Who discovered the problem:** Charles Franco

**Name of individual from Contractor notified:** Man Kam Hon

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Time and method of notification:** 6/29/2009, 16:00; Verbal

**Name of Caltrans Engineer notified:** Scott Kennedy

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**QC Inspector's Name:** Li Xiu Yang

**Was QC Inspector aware of the problem:**  Yes  No

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

**Comments:**

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---

**Inspected By:** Sinevod,Serge

ASMR

---

**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:** 01-Jul-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:** 05.03.06-000299

**Subject:** NCR No. ZPMC-0310

**Reference Description:** Base Metal / East Shaft Lift 4 Skin Plate E / Longitudinal Stiffener Fit-Up

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

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- 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:** Tower **Lift:** 04

**Remarks:**

During in-process inspection of Lift 4, East Tower, Skin E, QA randomly observed two excavations at weld joint ESD1-FESA4-2A/F-13A(B) between 90mm plate FE4-13 and 75mm plate FE4-1. The excavations were made in the base and weld metals to allow for fit up of Longitudinal Stiffeners E1 and E2 to Skin Plate E. The repair procedure was not submitted nor approved by the Engineer at the time of repair.

Special Provisions Section 8.3 - "The Engineer shall be notified immediately in writing when welding problems, deficiencies, base metal repairs or any other type of repairs not submitted in the WQCP are discovered and also of the proposed repair procedures to correct them...No remedial work shall begin until the repair procedures are approved in writing by the Engineer."

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

While a CWR has been received subsequent to verbal notification of the occurrence, propose a resolution for the identified non-conformance that addresses both the procedures to minimize the repairs of the base metal and the corrective actions to be taken to ensure that the repairs performed are in compliance with the contract documents.

In addition to the material/workmanship non-conformance, address the failure of Quality Control to prevent the repairs/modification of the base metal without the approval of the Engineer and the steps taken by the welding Quality Control Manager to prevent future occurrences.

**Transmitted by:** Scott Kennedy Sr. Bridge Engineer  
**Attachments:** ZPMC-0310

**cc:** Rick Morrow, Gary Pursell, Mark Woods, Doug Coe  
**File:** 05.03.06

02:02:15.04  
 05.03.06-000299,NCT

Received  
 NCT-000299 01 Jul 09 Page 1 of 1



NDT客户检验通知单  
NDT Inspection Notification Sheet

文件编号: 003590  
Document No.

Shift	序号 No	检验内容 Inspection	待检验构件 Inspection part	产品分类 Section	检验场地 Inspection Place	计划检验时间 Inspection Time
DAY SHIFT	1	FIANL VT/MT/UT FOR WELDS	ESD1-FESA4-2A/F-13A (B)	EAST TOWER LIFT 4 SKIN E	BAY 11	2009-7-4 15:30 (CLOSE NCR 00336)
	6					

备注:  
Note:  
1、见证通知发出后, 现场等待时间通常不超过30分钟; 如有变动, 现场通知。  
1、When ZPMC give this table to Caltrans, Zpmc will do the inspection in 30 minutes. If we change the plan, we will inform Caltrans in the shop.

联系人:  
Requested By: *Li Xinying*

2、ZPMC根据自己的检验控制点 (HOLD POINT) 进行日常检验。  
2、ZPMC will do any inspection according to the HOLD POINT.

CT签收人:  
CT Receiver: *Albert Johnson*

3、此单为临时试用单, 仅适用于完工焊缝的NDT检验见证通知。  
3、This table is a temporary one, just for final NDT inspection notification.

签收时间:  
Time: *7-4-09 15:29 hr*

4、QC检验完成后, QA是否需要复验, 由QA自行决定, QC不再另行通知。复验等待时间通常为24小时。  
4、When ZPMC QC finish NDT inspection, Caltrans QA can decide if they want to retest it. ZPMC QC will not inform Caltrans again. The waiting time is 24 hours ordinarily.

5、具体焊缝编号请查看附页。  
5、The weld ID is on the attachment.



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.:	FE4-13	报告编号 Report No.:	T-CWR171
合同号 Contract No.:	04-0120F4	部件名称 Item Name:	E面板 SKIN E	NDT 报告编号 NDT Report No.:	NA
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述:

Description of Welding Discontinuity:

东塔第四吊装段E面板，在装配纵向筋时，焊缝打磨过度造成母材损伤，经测量最大处深度为7MM。见照片示意图。

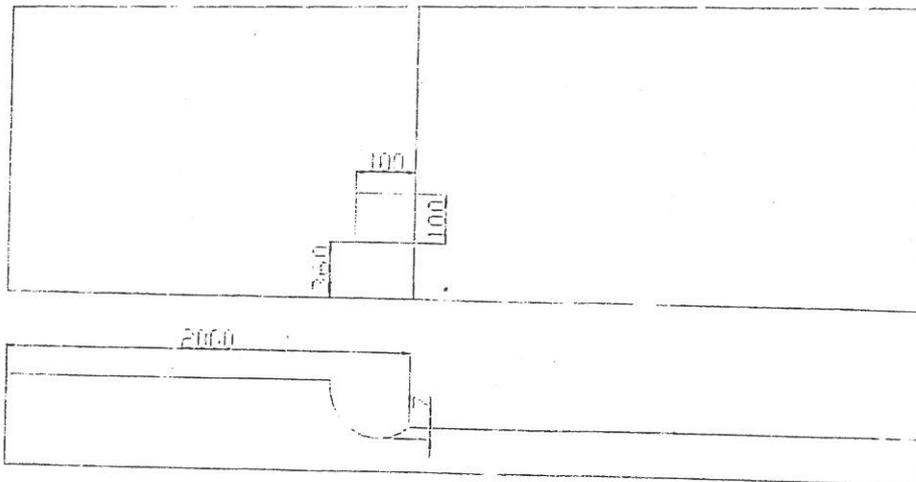
East tower fourth lifting Skin E, the base metal was 7mm gouged during grinding and assembly stiffener, see the following draft.

检验员 (Inspector): An Qingxiang

日期 (Date): 09.06.29

焊缝返修位置示意图:

Draft of Welding Discontinuity:



阴影部分为割伤区域。Gouged area in shadow.

This document is APPROVED  
State of California  
DEPARTMENT OF TRANSPORTATION  
Pursuant to Section 5-1.02 of the  
Standard Specifications  
Initial SSK Date: 09/01/09

产生原因:

Cause:

在打磨斜势时, 打磨工操作失误, 导致母材损伤。

During grinding excavation, the grinder operated error caused base metal gouged.

车间负责人 (Foreman):

Li Shiyuan

日期 (Date):

07.06.29

处理意见

Disposition :

1. A leader CWI shall be present during CWI.
2. Grind the build-up area to a smooth and shiny surface finish in preparation for welding.
3. Preheat and weld passes according to the approved WPS.
4. Build-up should be 2-3 mm greater than the final dimension.
5. Grind, to final dimension, the weld built-up area to a smooth and shiny finish.
6. Perform VT, MT and UT over 100% of the built-up area.

- 1、返修时, Leader CWI应该在现场监控;
- 2、对需要堆焊的部分打磨;
- 3、按批准后焊接工艺规程WPS要求进行预热和控制道间温度, 进行堆焊, 略高于理论2~3mm;
- 4、施焊完后将施焊位置打磨平整;
- 5、将堆焊区域打磨光滑, 露出金属光泽;
- 6、对修补区域进行100%的VT, MT, UT检测。

工艺:

Technical Engineer: *zheng j. reid*

审核:

Approved By:

*(u) jianhua*  
for chenbin

日期:

Date: 07.06.29

#R787-QCP-900

This document is APPROVED  
 State of California  
 DEPARTMENT OF TRANSPORTATION  
 Pursuant to Section 5-1.02 of the  
 Standard Specifications  
 Initial SFK Date: 07/01/09



# 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.:	FE4-13	报告编号 Report No.:	T-CWR171
合同号 Contract No.:	04-0120F4	部件名称 Item Name:	E面板 SKIN E	NDT 报告编号 NDT Report No.:	NA
项目编号 Project No.:	ZP06-787				

纠正措施:

Corrective Action to Prevent Re-occurrence:

培训和教育操作工, 提高操作水平。

Train and educate operator to improve operation skill.

车间负责人 (Foreman):

Li Shiguan

日期 (Date):

09.06.29

参照的 WPS 编号 Repair WPS No.:	WPS-485-SMAW-2 G(2F)-Repair WPS-485-SMAW-1 G(1F)-Repair WPS-485-FCAW-2 G(2F)-Repair WPS-485-FCAW-1 G(1F)-Repair	工艺员 Technologist:	Zhang Jinsong 09-06-29
返修 (碳刨) 前预热温度 Preheat Temperature Before Gouging:	NA	返修的缺陷 Description of Discontinuity:	焊缝
焊前处理检查 Inspection Before Welding:	Acc	焊前预热温度 Preheat Temperature Before Welding:	201
最大碳刨深度 Max. Depth of Gouge:	NA	碳刨总长 Total Length of Gouge:	NA
焊工 Welder:	058009	焊接类型 Welding Type:	SMAW
焊接电流 Current:	220	焊接电压 Voltage:	23.5
		焊接位置 Position:	1G
		焊接速度 Speed:	120

返修后检查

Inspection After Repair:

外观检查 VT Result:	Acc	检验员 Inspector:	Yuangping	日期 Date:	09.7.2
NDT 复检 NDT Result:	UT Acc MT Acc	探伤员 NDT Person:	Wuchan Zhou Xiyun	日期 Date:	09.7.4
见证: Witness/Review:					09.7.4

备注:

Remark:

#R787-QCP-900

美国新桥关键返修跟踪

报告编号	节段编号	构件图号	焊缝编号	返修情况简述	返修次数
施工队	安排带班	返修焊工(编号)	碳刨工	返修日期	QC
陈世华		03809	/	09.7.1	于坤

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000299

**Subject:** NCR No. ZPMC-0310

**Dated:** 10-Nov-2009

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000261 **Rev:** 01

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### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC performed the base metal excavation in accordance with approved CWR, T-CWR171. Caltrans inspectors verified the repair and found it acceptable using both MT and UT.

ZPMC performed the base metal excavation in accordance with approved CWR, T-CWR171. Caltrans inspectors verified the repair and found it acceptable using both MT and UT. Results of the successful repair are documented in Caltrans records of Inspection Request 003590. Based on this ZPMC requests closure of this NCR.

### Submitted by:

**Attachment(s):** ABF-NPR-000261R01;

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### Caltrans' comments:

**Status:** AAP

**Date:** 10-Nov-2009

ZPMC did submit T-CWR171, but only after verbal notification of the occurrence by CT Inspector. The Department's transmittal letter for this NCR requires to address the failure of Quality Control to prevent the repairs/ modification to the base metal without the approval of the Engineer and the steps taken by QCM to prevent future occurrences. It also requires to propose a resolution for the identified non-conformance that addresss the procedure to minimize the repair of the base metal.

The Department acknowledges that the repairs have been verified and accepted, however, all issues on the trasmittal letter have not been addressed.

**Submitted by:** Lee, Ken

**Date:** 10-Nov-2009

**Attachment(s):**



No. T-034

## LETTER OF RESPONSE

**TO: American Bridge/Flour JV**

**DATE: 2009-7-6**

**REGARDING: NCR-000336 ZPMC-0310**

ZPMC received NCR-000336(ZPMC-0310), the original contents is: "During in process inspection of lift 4,East tower skin e QA randomly observed two excavations at weld joint esd1-fesa4-2a/f-13a(b)between 90mm plate FE4-13 and 75mm plate FE4-1.The excavations were made in the base and weld metals to allow for fit up of longitudinal stiffeners E1 and E2 to skin plate E. The repair procedure was not submitted nor approved by the Engineer at the time of repair."

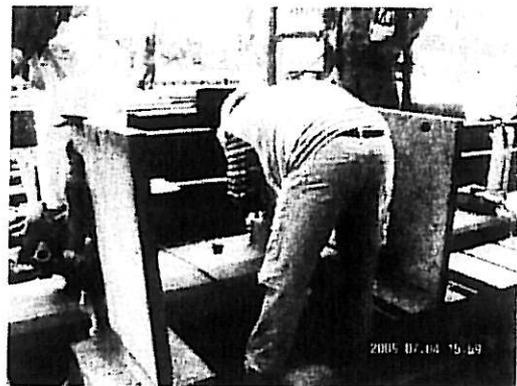
About this situation Charles Franco found this problem, and then we issued the T-CWI171 approved by the CT engineer, and we did the MT and UT work about the repair work.And the CT inspector Baskar did the inspection about the MT and the UT work (see attachment photos)to make sure no problem.

So ZPMC hope Caltrans can take a review and close this NCR.

**ATTACHMENT:**

**NDT INSPECTION NOTIFICATION SHEET 3590**

**T-CWR171**



**APPLICATION FORM FOR BASE MATERIAL NDT 1955**

*Li Xinyang*

09. 7. 6

**DEPARTMENT OF TRANSPORTATION**  
 DIVISION OF ENGINEERING SERVICES  
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 Quality Assurance and Source Inspection



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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, PRC **Report No:** NCR-000336  
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV **Date:** 29-Jun-2009  
**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0310

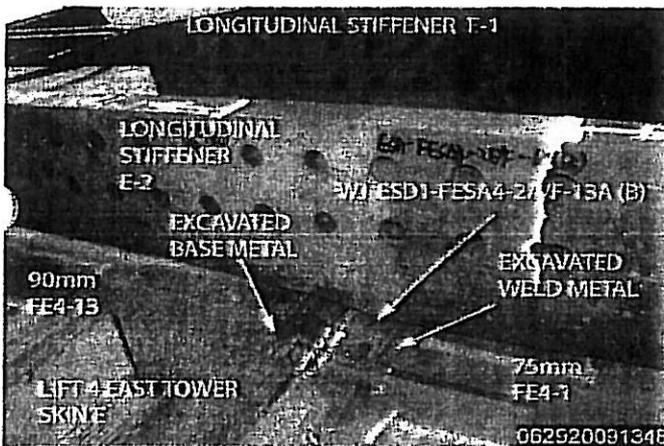
**Type of problem:**

- Welding  Concrete  Other   
 Welding  Curing  Procedural  **Bridge No:** 34-0006  
 Joint fit-up  Coating  Other  **Component:** East Tower, Lift 4, Skin E  
 Procedural  Procedural  **Description:** East Tower, Lift 4, Skin E

**Reference Description:** Base metal gouges in East Tower, Lift 4, Skin Plate E to aid longitudinal stiffener fit-up

**Description of Non-Conformance:**

During in-process inspection of Lift 4, East Tower, Skin E, QA randomly observed two excavations at weld joint ESD1-FESA4-2A/F-13A(B) between 90mm plate FE4-13 and 75mm plate FE4-1. The excavations were made in the base and weld metals to allow for fit up of Longitudinal Stiffeners E1 and E2 to Skin Plate E. The repair procedure was not submitted nor approved by the Engineer at the time of repair.



**Applicable reference:**

Special Provisions Section 8.3 - "The Engineer shall be notified immediately in writing when welding problems, deficiencies, base metal repairs or any other type of repairs not submitted in the WQCP are discovered and also of the proposed repair procedures to correct them...No remedial work shall begin until the repair procedures are approved in writing by the Engineer."

**Who discovered the problem:** Charles Franco

**Name of individual from Contractor notified:** Man Kam Hon

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Time and method of notification:** 6/29/2009, 16:00; Verbal

**Name of Caltrans Engineer notified:** Scott Kennedy

**Time and method of notification:** 6/29/2009, 14:00; Verbal

**QC Inspector's Name:** Li Xiu Yang

**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 Serge Sinevod, 134-8257-0045, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Sinevod,Serge	ASMR
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<b>Reviewed By:</b>	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 Date: 01-Jul-2009  
 375 BURMA ROAD  
 OAKLAND CA 95607 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: 05.03.06-000299  
 Subject: NCR No. ZPMC-0310

Reference Description: Base Metal / East Shaft Lift 4 Skin Plate E / Longitudinal Stiffener Fit-Up

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: Tower Lift: 04

**Remarks:**

During in-process inspection of Lift 4, East Tower, Skin E, QA randomly observed two excavations at weld joint ESD1-FESA4-2A/F-13A(B) between 90mm plate FE4-13 and 75mm plate FE4-1. The excavations were made in the base and weld metals to allow for fit up of Longitudinal Stiffeners E1 and E2 to Skin Plate E. The repair procedure was not submitted nor approved by the Engineer at the time of repair.

Special Provisions Section 8.3 - "The Engineer shall be notified immediately in writing when welding problems, deficiencies, base metal repairs or any other type of repairs not submitted in the WQCP are discovered and also of the proposed repair procedures to correct them...No remedial work shall begin until the repair procedures are approved in writing by the Engineer."

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

While a CWR has been received subsequent to verbal notification of the occurrence, propose a resolution for the identified non-conformance that addresses both the procedures to minimize the repairs of the base metal and the corrective actions to be taken to ensure that the repairs performed are in compliance with the contract documents.

In addition to the material/workmanship non-conformance, address the failure of Quality Control to prevent the repairs/modification of the base metal without the approval of the Engineer and the steps taken by the welding Quality Control Manager to prevent future occurrences.

Transmitted by: Scott Kennedy Sr. Bridge Engineer  
 Attachments: ZPMC-0310

cc: Rick Morrow, Gary Pursell, Mark Woods, Doug Coe  
 File: 05.03.06

02:02:15.04  
 05.03.06-000299,NCT

Received  
 NCT-000299 01 Jul 09 Page 1 of 1



NDT客户检验通知单  
NDT Inspection Notification Sheet

文件编号: 003590  
Document No.

Shift	序号 No	检验内容 Inspection	待检验构件 Inspection part	产品分类 Section	检验场地 Inspection Place	计划检验时间 Inspection Time
DAY SHIFT	1	FIANL VT/MT/UT FOR WELDS	ESD1-FESA4-2A/F-13A(B)	EAST TOWER LIFT 4 SKIN E	BAY 11	2009-7-4 15:30 (CLOSE NCR 00336)
	6					

备注:  
Note:  
1、见证通知发出后, 现场等待时间通常不超过30分钟; 如有变动, 现场通知。  
1、When ZPMC give this table to Caltrans, Zpmc will do the inspection in 30 minutes. If we change the plan, we will inform Caltrans in the shop.

联系人: *Lixinyang*  
Requested By:

2、ZPMC根据自己的检验控制点 (HOLD POINT) 进行日常检验。  
2、ZPMC will do any inspection according to the HOLD POINT.  
3、此单为临时试用单, 仅适用于完工焊缝的NDT检验见证通知。  
3、This table is a temporary one, just for final NDT inspection notification.

CT签收人: *Albert Johnson*  
CT Receiver:

4、QC检验完成后, QA是否需要复验, 由QA自行决定, QC不再另行通知。复验等待时间通常为24小时。  
4、When ZPMC QC finish NDT inspection, Caltrans QA can decide if they want to retest it. ZPMC QC will not inform Caltrans again. The waiting time is 24 hours ordinarily.

签收时间: *7-4-09 15:29 hrs*  
Time:

5、具体焊缝编号请查看附页。  
5、The weld ID is on the attachment.



# 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.:	FE4-13	报告编号 Report No.:	T-CWR171
合同号 Contract No.:	04-0120F4	部件名称 Item Name:	E面板 SKIN E	NDT 报告编号 NDT Report No.:	NA
项目编号 Project No.:	ZP06-787				

### 焊缝缺陷描述:

#### Description of Welding Discontinuity:

东塔第四吊装段E面板，在装配纵向筋时，焊缝打磨过度造成母材损伤，经测量最大处深度为7MM。见照片示意图。

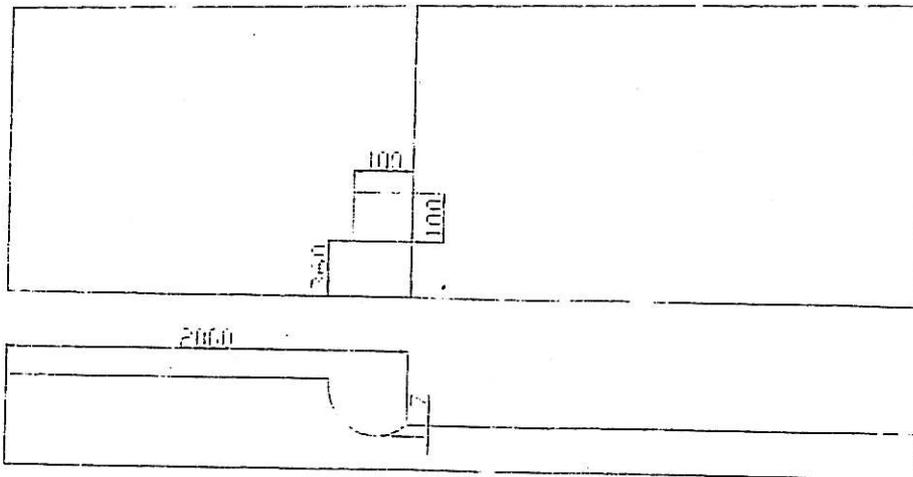
East tower fourth lifting Skin E, the base metal was 7mm gouged during grinding and assembly stiffener, see the following draft.

检验员 (Inspector): An Qingxiang

日期 (Date): 09.06.29

### 焊缝返修位置示意图:

#### Draft of Welding Discontinuity:



阴影部分为割伤区域。Gouged area in shadow.

This document is APPROVED  
 State of California  
 DEPARTMENT OF TRANSPORTATION  
 Pursuant to Section 5-1.02 of the  
 Standard Specifications  
 Initial SFK Date: 09/01/09

产生原因:

Cause:

在打磨斜势时, 打磨工操作失误, 导致母材损伤。

During grinding excavation, the grinder operated error caused base metal gouged.

车间负责人 (Foreman): Li Shiguan

日期 (Date): 07.06.29

处理意见

Disposition :

1. A leader CWI shall be present during CWI.
2. Grind the build-up area to a smooth and shiny surface finish in preparation for welding.
3. Preheat and weld passes according to the approved WPS.
4. Build-up should be 2-3 mm greater than the final dimension.
5. Grind, to final dimension, the weld built-up area to a smooth and shiny finish.
6. Perform VT, MT and UT over 100% of the built-up area.

1. 返修时, Leader CWI应该在现场监控;
2. 对需要堆焊的部分打磨;
3. 按批准后焊接工艺规程WPS要求进行预热和控制道间温度, 进行堆焊, 略高于理论2~3mm;
4. 施焊完后将施焊位置打磨平整;
5. 将堆焊区域打磨光滑, 露出金属光泽;
6. 对修补区域进行100%的VT, MT, UT检测。

工艺:

Technical Engineer: Zhang Tinghui

审核:

Approved By:

(Signature) for chenbin

日期:

Date: 07.06.29

#R787-QCP-900

This document is APPROVED  
 State of California  
 DEPARTMENT OF TRANSPORTATION  
 Pursuant to Section 5-1.02 of the  
 Standard Specifications  
 Initial SFJL Date: 07/01/09



# 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.:	FE4-13	报告编号 Report No.:	T-CWR171
合同号 Contract No.:	04-0120F4	部件名称 Item Name:	E面板 SKIN E	NDT 报告编号 NDT Report No.:	NA
项目编号 Project No.:	ZP06-787				

## 纠正措施:

Corrective Action to Prevent Re-occurrence:

培训和教育操作工, 提高操作水平。

Train and educate operator to improve operation skill.

车间负责人 (Foreman):

Li Shiqun

日期 (Date):

09.06.29

参照的 WPS 编号 Repair WPS No.:	WPS-485-SMAW-2 G(2F)-Repair WPS-485-SMAW-1 G(1F)-Repair WPS-485-FCAW-2 G(2F)-Repair WPS-485-FCAW-1 G(1F)-Repair	工艺员 Technologist:	Zhang Jintong 09-06-29
返修 (碳刨) 前预热温度 Preheat Temperature Before Gouging:	NA	返修的缺陷 Description of Discontinuity:	焊缝处
焊前处理检查 Inspection Before Welding:	Acc	焊前预热温度 Preheat Temperature Before Welding:	201
最大碳刨深度 Max. Depth of Gouge:	NA	碳刨总长 Total Length of Gouge:	NA
焊工 Welder:	058009	焊接类型 Welding Type:	SMAW
焊接电流 Current:	220	焊接电压 Voltage:	235
		焊接位置 Position:	1G
		焊接速度 Speed:	120

## 返修后检查

Inspection After Repair:

外观检查 VT Result:	Acc	检验员 Inspector:	Yuangping	日期 Date:	09.7.2
NDT 复检 NDT Result:	UT Acc	探伤员 NDT Person:	Wuchan	日期 Date:	09.7.4
见证: Witness/Review:	MT Acc		Zhou Anjun		09.7.4

备注:

Remark:

#R787-QCP-900

### 美国新桥关键返修跟踪

报告编号	节段编号	构件图号	焊缝编号	返修情况简述	返修次数
施工队	安排带班	返修焊工 (编号)	碳刨工	返修日期	QC
陈世平		01809		09.7.1	于中平

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000299

**Subject:** NCR No. ZPMC-0310

**Dated:** 16-Dec-2009

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000261 **Rev:** 02

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**Contractor's Proposed Resolution:**

**Reference Resolution:** Per Caltrans comments, attached is documentation that the weld in question is sound. Based on this ZPMC requests closure of this NCR.

Per Caltrans comments, attached is documentation that the weld in question is sound. Based on this ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000261R02;

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**Caltrans' comments:**

**Status:** AAP

**Date:** 16-Dec-2009

In its response to ABF-NRP-000261R01, the Department required ABFJV to address the failure of Quality Control to prevent the repair/modification of the base metal without the approval of the Engineer and the steps taken by the welding Quality Control Manager to prevent future occurrences. However, ABF-NPR-000261 Rev 2 still did not address those items. Please provide your response to the required items.

**Submitted by:** Lee, Ken

**Attachment(s):**

**Date:** 16-Dec-2009



No. T-102

## LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2009-12-15

REGARDING: NCR-000336 ZPMC-0310

ZPMC received NCR-000336(ZPMC-0310), the original contents is: "During in process inspection of lift 4, East tower skin e QA randomly observed two excavations at weld joint esd1-fesa4-2a/f-13a(b) between 90mm plate FE4-13 and 75mm plate FE4-1. The excavations were made in the base and weld metals to allow for fit up of longitudinal stiffeners E1 and E2 to skin plate E. The repair procedure was not submitted nor approved by the Engineer at the time of repair."

1、 About this situation Charles Franco found this problem, but he mentioned 90mm plate FE4-13, the real of this plate thickness is 100mm

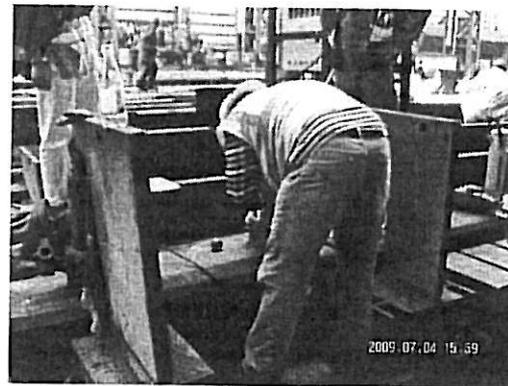
2、 We issued the T-CWI171 approved by the CT engineer, and we did the MT and UT work about the repair work. And the CT inspector Baskar did the inspection about the MT and the UT work (see attachment photos) to make sure no problem.

3、 Now this stiffener and the skin are all green tag by the CT people.

So ZPMC hope Caltrans can take a review and close this NCR.

**ATTACHMENT:**

T-CWR171



REPORT OF MAGNETIC PARTICLE EXAMINATION:T787-MT-7360

REPORT OF ULTRASONIC EXAMINATION :T787-UT-1955

*Xin Yang*

09.12.15



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: 01-Jul-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-0310

Job Name: SAS Superstructure  
 Document No: 05.03.06-000299

Reference Description: Base Metal / East Shaft Lift 4 Skin Plate E / Longitudinal Stiffener Fit-Up

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: Tower

Lift: 04

**Remarks:**

During in-process inspection of Lift 4, East Tower, Skin E, QA randomly observed two excavations at weld joint ESD1-FESA4-2A/F-13A(B) between 90mm plate FE4-13 and 75mm plate FE4-1. The excavations were made in the base and weld metals to allow for fit up of Longitudinal Stiffeners E1 and E2 to Skin Plate E. The repair procedure was not submitted nor approved by the Engineer at the time of repair.

Special Provisions Section 8.3 - "The Engineer shall be notified immediately in writing when welding problems, deficiencies, base metal repairs or any other type of repairs not submitted in the WQCP are discovered and also of the proposed repair procedures to correct them...No remedial work shall begin until the repair procedures are approved in writing by the Engineer."

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

While a CWR has been received subsequent to verbal notification of the occurrence, propose a resolution for the identified non-conformance that addresses both the procedures to minimize the repairs of the base metal and the corrective actions to be taken to ensure that the repairs performed are in compliance with the contract documents.

In addition to the material/workmanship non-conformance, address the failure of Quality Control to prevent the repairs/modification of the base metal without the approval of the Engineer and the steps taken by the welding Quality Control Manager to prevent future occurrences.

Transmitted by: Scott Kennedy Sr. Bridge Engineer

Attachments: ZPMC-0310

cc: Rick Morrow, Gary Pursell, Mark Woods, Doug Coe  
 File: 05.03.06

02:02:15 04  
 05.03.06-000299.NCT

Received  
 NCT-000299 01 Jul 09 Page 1 of 1

**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-000336

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

**Date:** 29-Jun-2009

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

**NCR #:** ZPMC-0310

**Type of problem:**

Welding  Concrete  Other

Welding  Curing  Procedural

Joint fit-up  Coating  Other

Procedural  Procedural

**Bridge No:** 34-0006

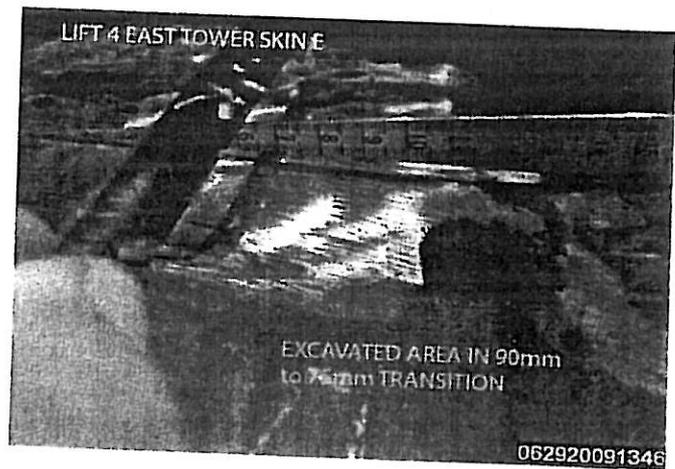
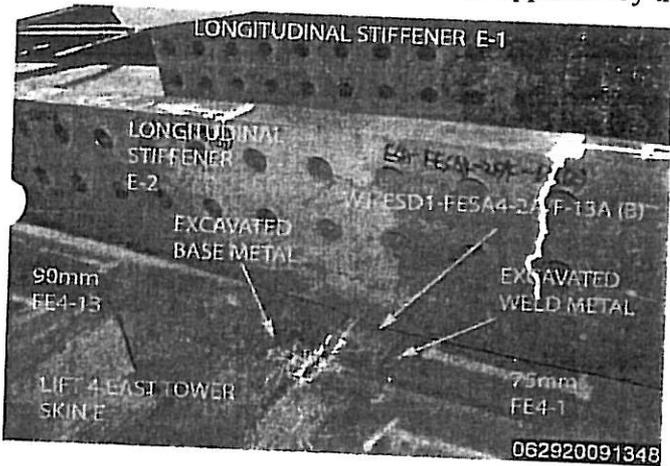
**Component:** East Tower, Lift 4, Skin E

**Description:** East Tower, Lift 4, Skin E

**Reference Description:** Base metal gouges in East Tower, Lift 4, Skin Plate E to aid longitudinal stiffener fit-up

**Description of Non-Conformance:**

During in-process inspection of Lift 4, East Tower, Skin E, QA randomly observed two excavations at weld joint ESD1-FESA4-2A/F-13A(B) between 90mm plate FE4-13 and 75mm plate FE4-1. The excavations were made in the base and weld metals to allow for fit up of Longitudinal Stiffeners E1 and E2 to Skin Plate E. The repair procedure was not submitted nor approved by the Engineer at the time of repair.



**Applicable reference:**

Special Provisions Section 8.3 - "The Engineer shall be notified immediately in writing when welding problems, deficiencies, base metal repairs or any other type of repairs not submitted in the WQCP are discovered and also of the proposed repair procedures to correct them...No remedial work shall begin until the repair procedures are approved in writing by the Engineer."

**Who discovered the problem:** Charles Franco

**Name of individual from Contractor notified:** Man Kam Hon

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# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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( Continued Page 2 of 2 )

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**Time and method of notification:** 6/29/2009, 16:00; Verbal

**Name of Caltrans Engineer notified:** Scott Kennedy

**Time and method of notification:** 6/29/2009, 14:00; Verbal

**QC Inspector's Name:** Li Xiu Yang

**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 Serge Sinevod, 134-8257-0045, who represents the Office of Structural Materials for your project.

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**Inspected By:** Sinevod, Serge

ASMR

**Reviewed By:** Wahbeh, Mazen

SMR

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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.:	FE4-13	报告编号 Report No.:	T-CWR171
合同号 Contract No.:	04-0120F4	部件名称 Item Name:	E面板 SKIN E	NDT 报告编号 NDT Report No.:	NA
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述:

Description of Welding Discontinuity:

东塔第四吊装段E面板，在装配纵向筋时，焊缝打磨过度造成母材损伤，经测量最大处深度为7MM。见照片示意图。

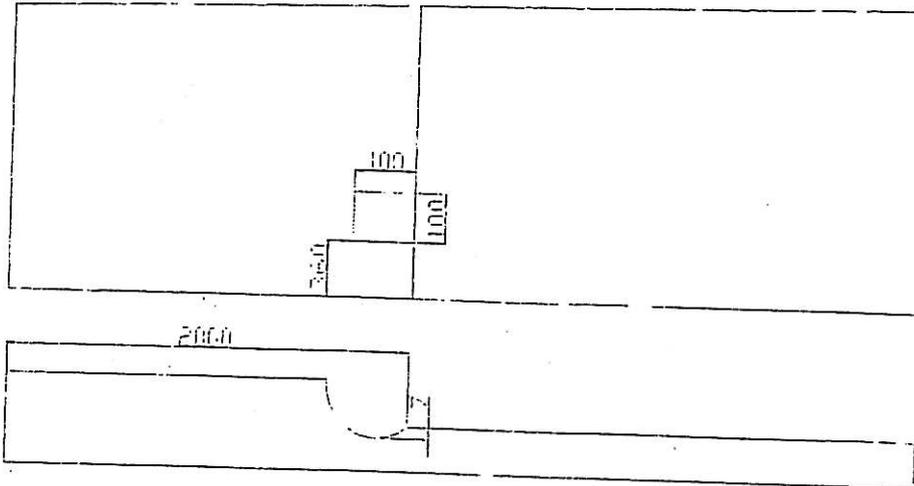
East tower fourth lifting Skin E, the base metal was 7mm gouged during grinding and assembly stiffener, see the following draft.

检验员 (Inspector): *An Qingxiang*

日期 (Date): 09.06.29

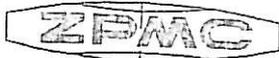
焊缝返修位置示意图:

Draft of Welding Discontinuity:



阴影部分为割伤区域。Gouged area in shadow.

This document is APPROVED  
State of California  
DEPARTMENT OF TRANSPORTATION  
Pursuant to Section 5-1.02 of the  
Standard Specifications  
Initial SFK Date: 09/06/09



# 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.:	FE4-13	报告编号 Report No.:	T-CWR171
合同号 Contract No.:	04-0120F4	部件名称 Item Name:	E面板 SKIN E	NDT 报告编号 NDT Report No.:	NA
项目编号 Project No.:	ZP06-787				

纠正措施:  
Corrective Action to Prevent Re-occurrence:  
培训和教育操作工, 提高操作水平。  
Train and educate operator to improve operation skill.

车间负责人 (Foreman): Li Shiguan 日期 (Date): 09.06.29

参照的 WPS 编号 Repair WPS No.:	WPS-485-SMAW-2 G(2F)-Repair WPS-485-SMAW-1 G(1F)-Repair WPS-485-FCAW-2 G(2F)-Repair WPS-485-FCAW-1 G(1F)-Repair	工艺员 Technologist:	<u>Zhang Jindong</u> <u>09.06.29</u>
-------------------------------	--	----------------------	---

返修 (碳刨) 前预热温度 Preheat Temperature Before Gouging:	<u>NA</u>	返修的缺陷 Description of Discontinuity:	<u>堆焊</u>
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焊前处理检查 Inspection Before Welding:	<u>Acc</u>	焊前预热温度 Preheat Temperature Before Welding:	<u>201</u>
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最大碳刨深度 Max. Depth of Gouge:	<u>NA</u>	碳刨总长 Total Length of Gouge:	<u>NA</u>
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焊工 Welder:	<u>058009</u>	焊接类型 Welding Type:	<u>SMAW</u>	焊接位置 Position:	<u>1G</u>
焊接电流 Current:	<u>220</u>	焊接电压 Voltage:	<u>23.5</u>	焊接速度 Speed:	<u>120</u>

返修后检查  
Inspection After Repair:

外观检查 VT Result:	<u>Acc</u>	检验员 Inspector:	<u>Yuangping</u>	日期 Date:	<u>09.7.2</u>
NDT 复检 NDT Result:	<u>UT Acc</u> <u>MT Acc</u>	探伤员 NDT Person:	<u>Wuchao</u> <u>Shou Anjun</u>	日期 Date:	<u>09.7.4</u>
见证: Witness/Review:					<u>09.7.4</u>

备注:  
Remark:

产生原因:

Cause:

在打磨斜势时, 打磨工操作失误, 导致母材损伤。

During grinding excavation, the grinder operated error caused base metal gouged.

车间负责人 (Foreman):

Li Shiyuan

日期 (Date):

09.06.29

处理意见

Disposition:

1. A leader CWI shall be present during CWI.
  2. Grind the build-up area to a smooth and shiny surface finish in preparation for welding.
  3. Preheat and weld passes according to the approved WPS.
  4. Build-up should be 2-3 mm greater than the final dimension.
  5. Grind, to final dimension, the weld built-up area to a smooth and shiny finish.
  6. Perform VT, MT and UT over 100% of the built-up area.
- 
1. 返修时, Leader CWI应该在现场监控;
  2. 对需要堆焊的部分打磨;
  3. 按批准后焊接工艺规程WPS要求进行预热和控制道间温度, 进行堆焊, 略高于理论2-3mm;
  4. 施焊完后将施焊位置打磨平整;
  5. 将堆焊区域打磨光滑, 露出金属光泽;
  6. 对修补区域进行100%的VT, MT, UT检测。

工艺:

Technical Engineer: zhang jindong

审核:

Approved By:

(u) jianhua  
for chenbin

日期:

Date: 09.06.29

#R787-QCP-900

This document is APPROVED  
State of California  
DEPARTMENT OF TRANSPORTATION  
Pursuant to Section 5-1.02 of the  
Standard Specifications  
Initial SFZ Date: 07/01/09





## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000299

**Subject:** NCR No. ZPMC-0310

**Dated:** 14-Jan-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000261 **Rev:** 03

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### Contractor's Proposed Resolution:

**Reference Resolution:** The ABF QCM has discussed at length with ZPMC QA and QC that Base Metal repairs require Engineers approval unless specifically allowed by the code.

The ABF QCM has discussed at length with ZPMC QA and QC that Base Metal repairs require Engineers approval unless specifically allowed by the code. The ZPMC QA/QC staff is responsible to monitor welding operations and if required stop production if found performing repairs to base metal without the proper documentation on hand and at the work site. The ABF QCM has also discussed these same topics with the ABF lead inspectors as well as our subcontract line inspectors to prevent future occurrences., and to strictly monitor both the ZPMC production and QC and to inform them immediately at the work site if non conforming conditions are observed. If no action is immediately taken by ZPMC after ABF inspectors instructions, the ABF inspector is to notify ABF management immediately. ZPMC requests closure of this NCR.

**Submitted by:** Lawton, Steve

**Attachment(s):** ABF-NPR-000261R03

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### Caltrans' comments:

**Status:** CLO

**Date:** 14-Jan-2010

The proposed resolution is acceptable. The Department concurs that Non-conformance ZPMC-0310 is closed.

**Submitted by:** Lee, Ken

**Attachment(s):**

**Date:** 14-Jan-2010

**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, PRC**Report No:** NCS-000242**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 05-Aug-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0310**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:** 29-Jun-2009**Description of Non-Conformance:**

During in-process inspection of Lift 4, East Tower, Skin E, QA observed two excavations at weld joint ESD1-FESA4-2A/F-13A(B) between 90mm plate FE4-13 and 75mm plate FE4-1. The excavations were made in the base and weld metals to allow for fit up of Longitudinal Stiffeners E1 and E2 to Skin Plate E. The repair procedure was not submitted nor approved by the Engineer at the time of repair.

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

Submit Critical Weld Repair (CWR) for repair of excavated material.

**Corrective action taken:**

Critical Weld Repair (T-CWR-171) for the excavated material was submitted, stating that the base and weld metal grinding was performed in error, and approved. Repairs were performed and verified by NDT.

**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 Serge Sinevod, 134-8257-0045, who represents the Office of Structural Materials for your project.

**Inspected By:** Sinevod, Serge

Quality Assurance Inspector

**Reviewed By:** Wahbeh, Mazen

QA Reviewer