

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



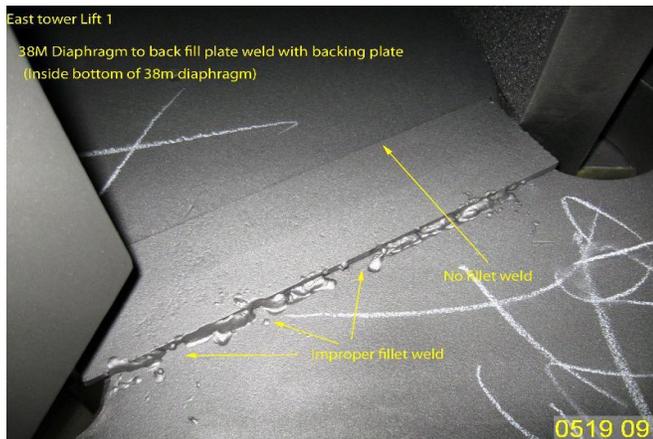
Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-000273**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 20-May-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0247**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: East Tower, Lift 1
Procedural	Procedural	Description: East Tower, Lift 1 weld backing plate	

Reference Description: East Tower, Lift 1 unacceptable weld on backing plate at diaphragm corner piece**Description of Non-Conformance:**

During random visual inspection of East Tower, Lift 1, after grit blasting, QA observed that tack welds used to attach steel backing were placed external to the weld joint but were not made by continuous fillet welding for the full length of the backing plate at weld joint ESD1-A165F/J-97. This weld was previously tested and accepted by ZPMC personnel.

**Applicable reference:**

AWS D1.5-2002, Section 3.3.7.6 - Tack welds used to attach steel backing and placed external to the weld joint shall be made continuous by fillet welding for the full length of the backing or shall be removed.

Who discovered the problem: Baskar Govindarajan**Name of individual from Contractor notified:** Don Walton**Time and method of notification:** 14:30, 5/20/2009; Verbal**Name of Caltrans Engineer notified:** Scott Kennedy**Time and method of notification:** 9:00, 5/22/2009; Verbal

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

QC Inspector's Name:

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.

Inspected By:	Sinevod,Serge	ASMR
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Reviewed By:	Wahbeh,Mazen	SMR
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DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
 333 Burma Road
 Oakland CA 94607
 Tel: Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

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

Date: 22-May-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-0247

Job Name: SAS Superstructure
Document No: 05.03.06-000238

Reference Description: Backing Plate Welds / East Shaft Lift 1 / Diaphragm Corner Plate

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:** 01

Remarks:

During random visual inspection of East Tower, Lift 1, after grit blasting, QA observed that tack welds used to attach steel backing were placed external to the weld joint but were not made by continuous fillet welding for the full length of the backing plate at weld joint ESD1-A165F/J-97. This weld was previously tested and accepted by ZPMC personnel.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance, documenting that the deficiency has been brought in compliance with the contract requirements. Address how the deficiency will be tracked as it appears that the shaft will be painted prior to remediation of the deficiency.

In addition, to the material/workmanship non-conformance, propose a resolution for the identified non-conformance that addresses the failure of Quality Control to identify the deficiency. Provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences.

Transmitted by: Scott Kennedy Sr. Bridge Engineer

Attachments: ZPMC-0247

cc: Rick Morrow, Gary Pursell, Mark Woods, Jason Tom

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000238

Subject: NCR No. ZPMC-0247

Dated: 28-Jul-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000274 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has responded to this NCR and has attached documents as evidence of completion. ZPMC requests closure of this NCR.

ZPMC has responded to this NCR and has attached documents as evidence of completion. ZPMC requests closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000274R00;

Caltrans' comments:

Status: CLO

Date: 06-Aug-2009

The proposed resolution is acceptable. The intermittent tack welds attaching the backing bar have been removed, and the welds in question have been accepted by MT and UT as shown in the attached documents. The Department concurs that Non-Conformance ZPMC-0247 is closed.

Submitted by: Wright, Doug

Date: 06-Aug-2009

Attachment(s):



No. T-043

LETTER OF RESPONSE

TO: American Bridge/Flour JV

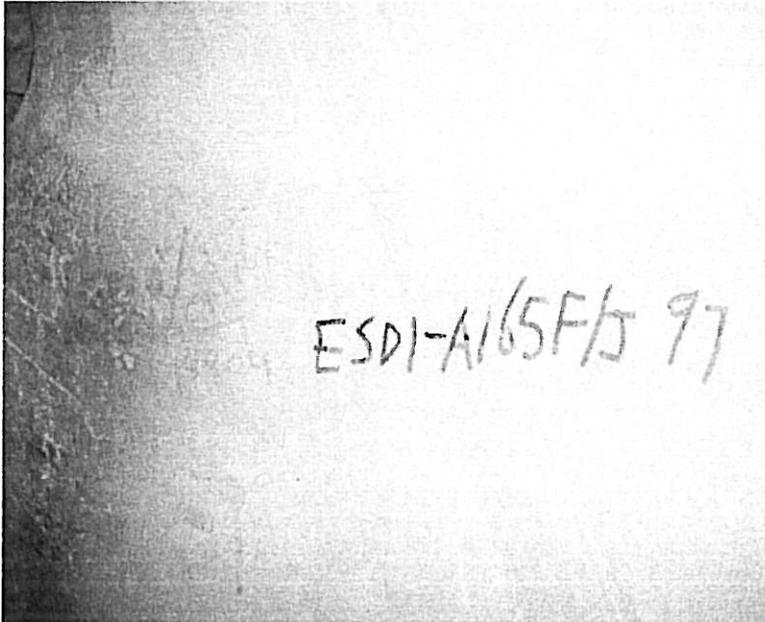
DATE: 2009-7-23

REGARDING: NCR-000273 (ZPMC-0247)

ZPMC received NCR-000273 (ZPMC-0247), it mentioned that East tower lift 1 unacceptable weld on backing plate at diaphragm corner piece.

About this NCR we have removed all the tacks according AWS D1.5 Section 3.3.7.6 and did the repair work, after that we did the MT/UT/VT for this weld again to make sure no problem, ZPMC also submit the notification to CT guy (Baskar Govindarajan) to let him make sure no problem about this weld.

So ZPMC want to close the NCR.



ATTACHMENT:

NCR-000273 (ZPMC-0247)

NOTIFICATION 003759

REPORT OF MAGNETIC PARTICLE EXAMINATION :T787-MT-5036

REPORT OF ULTRASONIC EXAMINATION :T787-UT-2034

Li Xiu Yang

09. 7. 23

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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-000273

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 20-May-2009

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

NCR #: ZPMC-0247

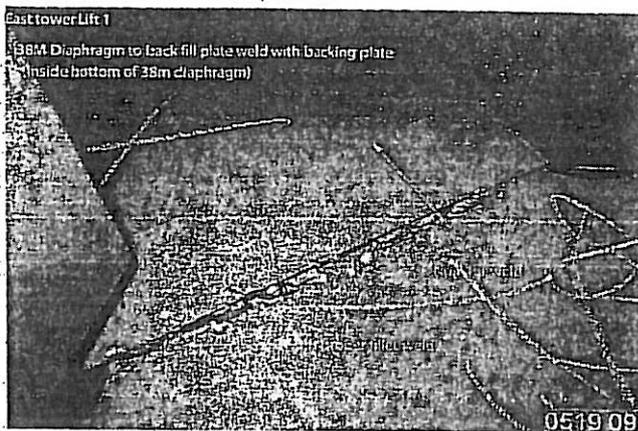
Type of problem:

Welding Concrete Other
 Welding Curing Procedural Bridge No: 34-0006
 Joint fit-up Coating Other Component: East Tower, Lift 1
 Procedural Procedural Description: East Tower, Lift 1 weld backing plate

Reference Description: East Tower, Lift 1 unacceptable weld on backing plate at diaphragm corner piece

Description of Non-Conformance:

During random visual inspection of East Tower, Lift 1, after grit blasting, QA observed that tack welds used to attach steel backing were placed external to the weld joint but were not made by continuous fillet welding for the full length of the backing plate at weld joint ESD1-A165F/J-97. This weld was previously tested and accepted by ZPMC personnel.



Applicable reference:

AWS D1.5-2002, Section 3.3.7.6 - Tack welds used to attach steel backing and placed external to the weld joint shall be made continuous by fillet welding for the full length of the backing or shall be removed.

Who discovered the problem: Baskar Govindarajan

Name of individual from Contractor notified: Don Walton

Time and method of notification: 14:30, 5/20/2009; Verbal

Name of Caltrans Engineer notified: Scott Kennedy

Time and method of notification: 9:00, 5/22/2009; Verbal



NDT客户检验通知单
NDT Inspection Notification Sheet

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	申请递交时间: Submit time: 2009-7-23 9:40	文件编号:003759 Document No.
DAY SHIFT	1	UT FOR WELDS	WSD1-FCSA4-2A/C- 86A/B, 85A/B, 84A/B, 28A/B, 29A/B, 30 A/B	EAST TOWER LIFT 4 SKIN C	BAY 11	2009-7-23 10:15	计划检验时间 Inspection Time
	2	UT FOR WELDS	WSD1-TL7K/L-1~14, 28~40	EAST TOWER LIFT 2 B/C CORNER DIAGONAL PLATE	BAY 11	2009-7-23 10:15	
	3	UT FOR WELDS	WSD1-TL7K/L-15~27, 41~54	EAST TOWER LIFT 2 C/D CORNER DIAGONAL PLATE	BAY 11	2009-7-23 10:15	
	4	UT/MT/VT FOR WELDS	ESD1-A165F/J-97 ✓	EAST TOWER LIFT 1 BACKING PLATE AT 38M DIAPHRAGM	BAY 11	2009-7-23 10:15 CLOSE NCR 273 (ZPMC- 247)	
	5	MT/VT FOR WELDS	ESD1-A165H/J-134	EAST TOWER LIFT 1 FIT LUG AT 47.6M DIAPHRAGM UPPER	ASSEMBLY FERRY	2009-7-23 10:15 CLOSE NCR 268 (ZPMC- 242)	
	6	UT/MT/VT FOR WELDS	ESD1-A165H/J-016 (X)	EAST TOWER LIFT 1 STEEL BACKING AT 47.6M DIAPHRAGM LOWER	ASSEMBLY FERRY	2009-7-23 10:15 CLOSE NCR 268 (ZPMC- 242)	
	7	MT/VT FOR WELDS	ESD1-A165H/J-214	EAST TOWER LIFT 1 STEEL BACKING AT 47.6M DIAPHRAGM	ASSEMBLY FERRY	2009-7-23 10:15 CLOSE NCR 268 (ZPMC- 242)	
	16						

备注: 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。
Note: 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.

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.

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、QC inspection, Caltrans QA can decide if they want to retest it. ZPMC

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.

联系人: Li Xinyang
Requested By:

CT签收人:
CT Receiver:

签收时间:
Time:

10:06
7/23/09



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 T787-UT-2034 DATE 2009.07.22 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: FIRST LIFTING TOWER(E) 38M FLOOR BEAM DRAWING NO.: ESD1-A165F/J CALTRANS CONTRACT NO.: 04-0120F4
 部件名称 图号 加州工程编号

REFERENCING CODE 参考规范 ACCEPTANCE STANDARD 接受标准 PROCEDURE NO. 程序编号
 AWS D1.5-2002 AWS D1.5-2002(Table 6.4) ZPQC-UT-01

WELDING PROCESS 焊接方法 JOINT TYPE 焊缝类型 CALIBRATION DUE DATE 仪器校正有效期
 SMAW BUTT Dec. 28ST, 2009

EQUIPMENT 设备 MANUFACTURER 制造商 MODEL NO. 样式编号 SERIAL NO. 序列编号
 UT SCOPE PANAMETRICS EPOCH-4B 071565311, 061488510, 061495811, 070152011,

CALIBRATION BLOCK 试块 COUPLANT 耦合剂 MATERIAL/THICKNESS 材料厚度
 AWS IIV BLOCK TYPE II C.M.C A709M-HPS-485WT2-Z 75mm

TRANSDUCER 探头

MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸	MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸
Changchao	70°	2.5MHz	18×18mm				
Changchao	0°	2.5MHz	20mm	Changchao	45°	2.5MHz	18×18mm

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		
ESD1-A165F/J-97		70				32								ACC.	100%
		45				32								ACC.	100%

BLANK

EXAMINED BY 主探 <i>Daiqiangsheng</i>	REVIEWED BY 审核 <i>Zshenglin</i>
LEVEL - II SIGN / DATE <i>09.07.22</i>	LEVEL - II SIGN / DATE <i>09.07.22</i>
质量经理 / QCM <i>Lingzhanhua</i>	用户 CUSTOMER
签字 SIGN / 日期 DATE <i>09.07.22</i>	签字 SIGN / 日期 DATE

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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-000227**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 29-Jul-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0247**Type of problem:**

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

Date the Non-Conformance Report was written: 20-May-2009**Description of Non-Conformance:**

During random visual inspection of East Tower, Lift 1, after grit blasting, QA observed that tack welds used to attach steel backing were placed external to the weld joint but were not made by continuous fillet welding for the full length of the backing plate at weld joint ESD1-A165F/J-97. This weld was previously tested and accepted by ZPMC personnel.

Contractor's proposal to correct the problem:

Remove steel backing tack welds.

Corrective action taken:

Steel backing tack welds were removed, in accordance with AWS D1.5-2002, Section 3.3.7.6, and NDT results indicating a sound weld have been submitted.

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**