

**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-000706  
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV **Date:** 06-Apr-2010  
**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0673

**Type of problem:**

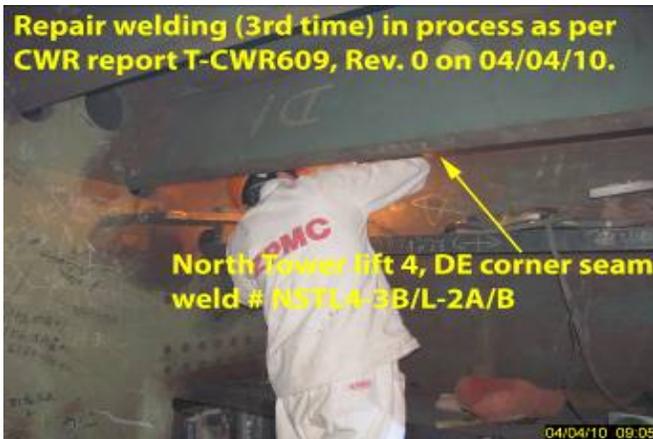
<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b> North Tower Lift 4, D/E Corner Seam weld
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Reference Description:** 4th time repair without Engineer and prior approved

**Description of Non-Conformance:**

During random in-process verification of D/E corner seam of North Tower Lift 4, this QA Inspector discovered the following issues:

- Observed Shielded Metal Arc Welding (SMAW) for repair on D/E corner seam of North Tower Lift 4.
- This repair welding (4th time) has been performed without prior approval of the engineer.
- This repair was previously (3rd time) performed at the same location as per CWR report T-CWR609, Rev. 0 dated April 4, 2010.
- ZPMC NDT personnel rejected the 3rd time repair by Ultrasonic Testing (UT) at this same location.
- The weld number is identified as NSTL4-3B/L-2A/B.
- The Y location of the repair is identified as 1630mm
- The welder is identified as #052493.
- The member is located in Bay 10.



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# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Applicable reference:**

AWS D1.5 Section: 3.7.4: "Prior approval of the Engineer shall be obtained for repairs to base metal (other than those required by 3.2), repair of major or delayed cracks, repairs to ESW and EGW welds with internal defects, or for a revised design to compensate for deficiencies."

Special Provisions 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 the proposed repair procedures to correct them."

**Who discovered the problem:** Umesh D. Gaikwad

**Name of individual from Contractor notified:** Yang Yi Heng

**Time and method of notification:** 0920 Hrs, 04/06/10, Verbal

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

**Time and method of notification:** 1420 Hrs, 04/06/10, Verbal

**QC Inspector's Name:** Li Peng Fei

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

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

N/A

**Comments:**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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**Inspected By:** Ng, Michael

QA Inspector

**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:** 07-Apr-2010

**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-0673

**Job Name:** SAS Superstructure  
**Document No:** 05.03.06-000664

**Reference Description:** CWR - Weld Repair Performed Without Engineer's Approval / North Tower Lift 4, DE Corner Seam / 4th time repair

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 random in-process verification of D/E corner seam of North Tower Lift 4, this QA Inspector discovered the following issues:
- Observed Shielded Metal Arc Welding (SMAW) for repair on D/E corner seam of North Tower Lift 4.
  - This repair welding (4th time) has been performed without prior approval of the engineer.
  - This repair was previously (3rd time) performed at the same location as per CWR report T-CWR609Rev. 0 dated April 4, 2010.
  - ZPMC NDT personnel rejected the 3rd time repair by Ultrasonic Testing (UT) at this same location.
  - The weld number is identified as NSTL4-3B/L-2A/B.
  - The Y location of the repair is identified as 1630mm
  - The welder is identified as #052493.
  - The member is located in Bay 10.

AWS D1.5 Section: 3.7.4: "Prior approval of the Engineer shall be obtained for repairs to base metal (other than those required by 3.2), repair of major or delayed cracks, repairs to ESW and EGW welds with internal defects, or for a revised design to compensate for deficiencies."

Special Provisions 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 the proposed repair procedures to correct them."

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

Propose a resolution for the identified non-conformance, address the failure by both Production and Quality Control in proceeding with the repair of the weld without prior approval from the Engineer. Provide documentation of the steps/actions taken by Production and Quality Control to prevent future occurrences.

As CWR 609 R1 was submitted and approved on 04/07/10, subsequent to the occurrence, acceptability of the weld repair will be determined and documented through the QC-QA process.

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# NCT

( Continued Page 2 of 2 )

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

**Attachments:**    ZPMC-0673

**cc:**    Rick Morrow, Gary Pursell, Peter Siegenthaler, Mark Woods

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000664

**Subject:** NCR No. ZPMC-0673

**Dated:** 10-Jun-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000688 Rev: 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC will provide the WRR used and the NDT after to show that the repair was successful. This issue has been addressed by ZPMC's QA and Production crews to prevent this issue.

ZPMC will provide the WRR used and the NDT after to show that the repair was successful. This issue has been addressed by ZPMC's QA and Production crews to prevent this issue. As this does not appear to be a consistent issue, ZPMC believes that these steps will correct the issue. Based on this proposal ZPMC requests that this NCR be approved, with actions pending.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000688R00

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### Caltrans' comments:

**Status:** AAP

**Date:** 10-Jun-2010

This proposed resolution is accepted with action pending. This NCR will be considered closed once the proper WRR and NDT documentation is submitted and reviewed.

**Submitted by:** Rizzardo, Gina

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

**Date:** 10-Jun-2010

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000664

**Subject:** NCR No. ZPMC-0673

**Dated:** 29-Jun-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000688 Rev: 01

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### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC stopped the repair in progress and drafted a new CWR which represented the work being done.

ZPMC stopped the repair in progress and drafted a new CWR which represented the work being done. ZPMC QA has discussed the importance of the QC verifying the documents are on hand before repair begin. ABFJV has had discussions with the ZPMC QA Manager and he has agreed to increase CWI presence in all areas to prevent lapse in QC oversight in the future. Based on these actions and submitted documents, ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000688R01;

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### Caltrans' comments:

**Status:** CLO

**Date:** 29-Jun-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0673 is closed.

Please note that ZPMC's Letter of Response incorrectly references NCR-0745 instead of NCR-0673 in the first sentence.

**Submitted by:** Rizzardo, Gina

**Date:** 29-Jun-2010

**Attachment(s):**



No. T-141

## LETTER OF RESPONSE

**TO: American Bridge/Flour JV**

**DATE: 2010-6-28**

**REGARDING: NCR-000706(ZPMC-0673)**

ZPMC received NCR-000745(ZPMC-0708), it mentioned that CT inspector discovered ZPMC perform welding repair without prior approval of engineer.

Here ZPMC need clarified that the foreman thought the welding repair point could be covered by the prior one, so they conducted repair work. And at that stage, as soon as get this information, ZPMC stop their incorrect action, and issued the new CWR for approval. Also the work team had been inculcated to enhance the management and must be checked if the repair approval before welding. At last the relation weld was checked and green tagged. Per ABF-NPR-000688 Rev. 00, here ZPMC attached NDT and CWR documents proving the weld is sound at last.

So ZPMC hope CT could take a review and close this NCR.

**ATTACHMENT:**

**NCR-000706(ZPMC-0673)**

**T-CWR609 R2**

**T787-UT-2603R5**

**T787-MT-9615**

**T787-MT-9107**

*Zhang We do*  
*2010.6.28*



**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:** 07-Apr-2010  
**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:** 05.03.06-000664  
**Subject:** NCR No. ZPMC-0673

**Reference Description:** CWR - Weld Repair Performed Without Engineer's Approval / North Tower Lift 4, DE Corner Seam / 4th time repair

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As CWR 609 R1 was submitted and approved on 04/07/10, subsequent to the occurrence, acceptability of the weld repair will be determined and documented through the QC-QA process.

Received  
NCT-000664 09 Apr 10

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**NCT**

*( Continued Page 2 of 2 )*

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

**Attachments:**    ZPMC-0673

**cc:**    Rick Morrow, Gary Pursell, Peter Siegenthaler, Mark Woods

**File:** 05.03.06

**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

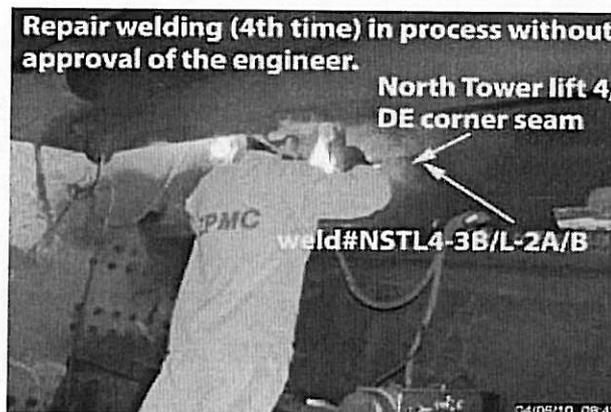
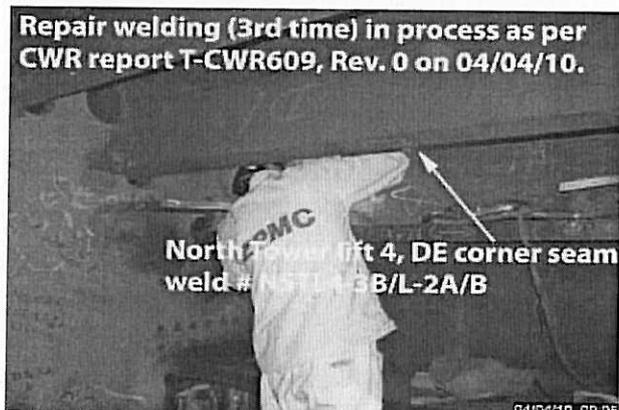
File #: 69.25B

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

**Location:** Changxing Island, Shanghai, PRC**Report No:** NCR-000706**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 06-Apr-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0673**Type of problem:**Welding  Concrete  Other Welding  Curing  Procedural Joint fit-up  Coating  Other Procedural  Procedural  Description:**Bridge No:** 34-0006**Component:** North Tower Lift 4, D/E Corner Seam weld**Reference Description:** 4th time repair without Engineer and prior approved**Description of Non-Conformance:**

During random in-process verification of D/E corner seam of North Tower Lift 4, this QA Inspector discovered the following issues:

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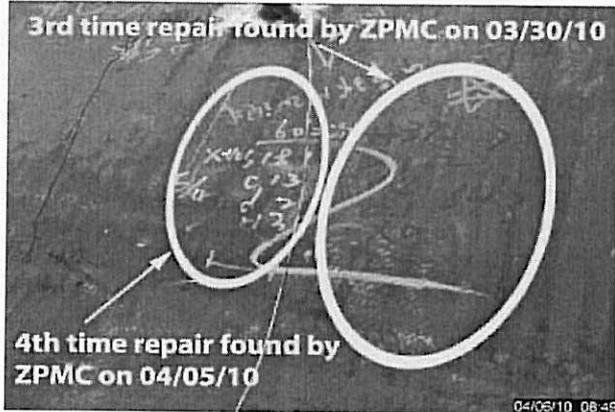
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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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(Continued Page 2 of 2)

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**Applicable reference:**

AWS D1.5 Section: 3.7.4: "Prior approval of the Engineer shall be obtained for repairs to base metal (other than those required by 3.2), repair of major or delayed cracks, repairs to ESW and EGW welds with internal defects, or for a revised design to compensate for deficiencies."

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**Who discovered the problem:** Umesh D. Gaikwad

**Name of individual from Contractor notified:** Yang Yi Heng

**Time and method of notification:** 0920 Hrs, 04/06/10, Verbal

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

**Time and method of notification:** 1420 Hrs, 04/06/10, Verbal

**QC Inspector's Name:** Li Peng Fei

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

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

N/A

**Comments:**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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**Inspected By:** Ng, Michael

QA Inspector

**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.:

2

项目名称 Project Name:	美国海湾大桥 SFOBB	部件图号 Drawing No.:	NSTL4-3B/L	报告编号 Report No.:	T-CWR609
合同号 Contract No.:	04-0120F4	部件名称 Item Name:	FOURTH LIFTING TOW ER(N)	NDT 报告编号 NDT Report No.:	T787-UT-2603R4
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述:

Description of Welding Discontinuity:

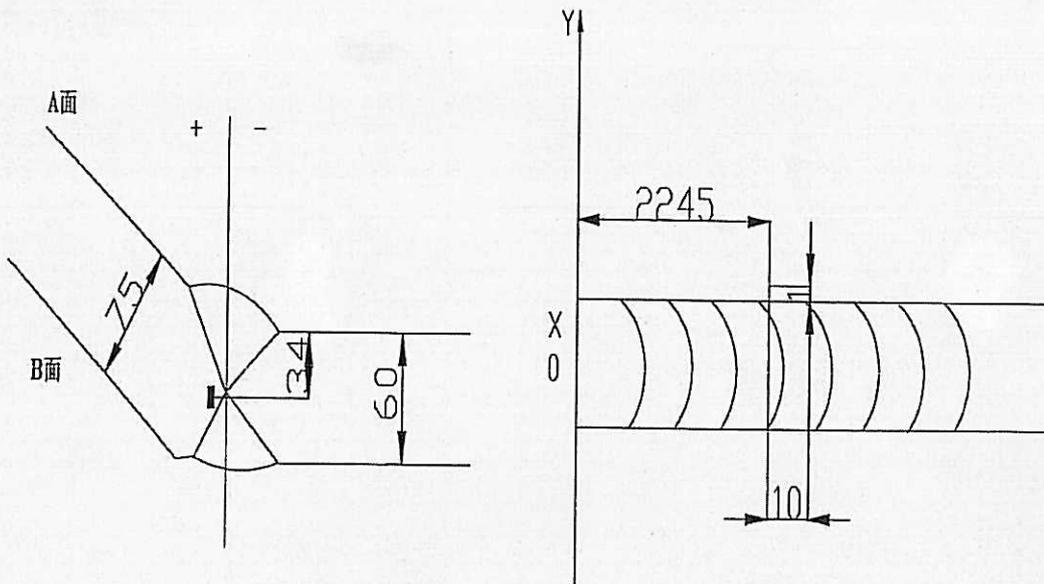
Rejectable indications were found by ultrasonic inspection for a fifth repair (UT探伤返修第5次) NSTL4-3B/L-2A/B

Welder ID No. (焊工编号): 052493      Position:(位置): 4G

检验员 (Inspector): Xu Ronggang      日期 (Date): 2010.04.11

焊缝返修位置示意图:

Draft of Welding Discontinuity:



WELD NUMBER: NSTL4-3B/L-2A/B

产生原因:

Cause:

1. 焊缝的位置比较狭窄, 碳刨时, 不能准确的将缺陷刨出.
  2. 打磨工在打磨时, 不够仔细, 没有将所有的缺陷去除.
1. The access space was quite narrow resulting in making it difficult to arc-gouge the defects effectively.
  2. The grinder was not observant during the grinding operation resulting in the indications not being completely removed.

车间负责人 (Foreman): *Lu Yefei* 日期 (Date): 10.04.11

处理意见

Disposition :

1. QC /CWI shall monitor and direct all gouging, grinding and welding during the repair procedure.
  2. Remove defects by gouging and /or grinding. If gouging is used, preheat the repair area to a minimum temperature of 65°C.
  3. Prepare excavation according to the approved repair WPS.
  4. Grind the repair area to a smooth and shiny surface.
  5. Verify that no defects are present by VT and MT prior to welding.
  6. Clean excavation of all loose debris and MT powder.
  7. Weld according to the approved WPS.
  8. Preheat and maintain interpass temperature control in accordance to the approved WPS.
  9. QC shall ensure all slag has been removed prior to the deposition of the next pass.
  10. Blend the weld repaired areas into the adjacent weld or base metal by grinding.
  11. Perform VT, MT and UT inspection to the repaired areas.
1. QC 和 CWI 应当监督和指导所有碳刨、打磨和焊接工作;
  2. 使用碳刨和打磨方式去除缺陷, 如果使用碳刨方式, 则在碳刨前须将返修区域预热到 65° C;
  3. 根据返修 WPS 准备合适的刨槽;
  4. 把返修区域打磨光滑;
  5. 在焊接前进行 VT、MT, 确保没有表面缺陷;
  6. 清理刨槽内的杂质和磁粉;
  7. 按照批准的 WPS 进行焊接;
  8. 根据批准的 WPS 进行焊接温度预热和道间温度控制;
  9. QC 应当确保在施焊下一道焊层前所有焊渣已被清理干净;
  10. 将返修区域与邻近焊缝或母材打磨至平滑过渡;
  11. 对返修区域进行 VT、MT 和 UT 检查。

工艺:

Technical Engineer: *zhay jindong*

审核:

Approved By: *Lu Yefei*

日期:

Date: 10.04.11

#R787-QCP-900



# 关键焊缝返修报告

版本  
Rev. No.:

Critical Welding Repair Report (CWR)

**2**

项目名称 Project Name:	美国海湾大桥 SFOBB	部件图号 Drawing No.:	NSTL4-3B/L	报告编号 Report No.:	T-CWR609
合同号 Contract No.:	04-0120F4	部件名称 Item Name:	FOURTH LIFTING TO WER(N)	NDT 报告编号 NDT Report No.:	T787-UT-2603R4
项目编号 Project No.:	ZP06-787				

**纠正措施:****Corrective Action to Prevent Re-occurrence:**

1. 碳刨打磨后, 要圆滑过度, VT和MT确认所有的缺陷已经去除, ;
  2. 教导在烧熔透焊缝和焊道清理时, 焊工必须负责任;
  3. 关键焊缝返修时, 主要的QC负责人要在现场:
1. Grind smoothly transition after gouging. Perform VT and MT to ensure all the defects have been removed.
  2. Instruct the welder that it is his responsibility to produce sound welds and perform interpass cleaning.
  3. Greater QC presence during critical welding operations.

车间负责人 (Foreman):

*Lu Yefei*

日期 (Date): 10.04.11

参照的WPS编号 Repair WPS No.:	WPS-345-FCAW-1 G (1F) -Repair WPS-345-FCAW-2 G (2F) -Repair WPS-345-SMAW-1 G(1F)-Repair WPS-345-SMAW-2 G(2F)-Repair	工艺员 Technologist:	<i>Shang Induf</i> 10-04-11
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 Gouge:		碳刨总长 Total Length of Gouge:	
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:	
<b>返修后检查</b> Inspection After Repair:			
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



# REPORT OF ULTRASONIC EXAMINATION

## UT探伤报告

REPORT NO. 报告编号 T787-UT-2603R5      DATE 2010.04.27      PAGE 1 OF 1      Revision No: 0

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

ITEMS NAME: FOURTH LIFTING TOWER(N) DE CORNER      DRAWING NO.: NSTL4-3B/L      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      CORNER-JOINT      Dec. 28<sup>ST</sup>, 2010

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

CALIBRATION BLOCK 试块      COUPLANT 耦合剂      MATERIAL/THICKNESS 材料厚度  
 AWS IIV BLOCK TYPE II      C.M.C      A709M-345T2-Z      75/60mm

### 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	60°	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			Sound Path 声程
NSTL4-3B/L-2A/B		45				32									ACC.	100%
		70				32									ACC.	100%
	3R5	60				32									ACC.	100%

AFTER T-CWR609 REV2

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EXAMINED BY 主探 <i>Xu Hong Gao</i> LEVEL - II SIGN / DATE <i>2010.4.27</i> 质量经理 / QCM <i>[Signature]</i> 签字 SIGN / 日期 DATE <i>2010.4.27</i>	REVIEWED BY 审核 <i>[Signature]</i> LEVEL - II SIGN / DATE <i>2010.4.27</i> 用户 CUSTOMER 签字 SIGN / 日期 DATE
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# REPORT OF MAGNETIC PARTICLE EXAMINATION

## 磁粉检测报告

REPORT NO. 报告编号 T787-MT-9107      DATE日期 2010.05.30      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: NSTL4-3L/L NSTL4-3B/L  
Tower(N) 4th lifting DE corner      CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4

REFERENCING CODE 参考规范编码: AWS D1.5-2002      ACCEPTANCE STANDARD 接受标准: AWS D1.5-2002      PROCEDURE NO. 程序编号: ZPQC-MT-01      CALIBRATION DUE DATE 仪器校正有效期: Dec. 28<sup>ST</sup>, 2010

EQUIPMENT 设备: MT YOKE      MANUFACTURER 制造商: PARKER      MODEL NO. 样式编号: B310S      SERIAL NO. 连续编号: 5620 5395 5617

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:  WELDING 焊接件  CASTING 铸件  FORGING 锻造      Material & thickness 母材,厚度: A709M-HPS485WT2-Z 90mm

WELDING PROCESS 焊接方法: SMAW      TYPE OF JOINT 焊缝类型: CORNER JOINT

WELD I.D. 焊缝编号	DISCONTINUITY不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
NSTL4-3L/L-1B				ACC.		100%MT
NSTL4-3B/L-2B				ACC.		100%MT

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EXAMINED BY 主探: Cai Xinxin      REVIEWED BY 审核: Wang Jue  
LEVEL - II SIGN 签名 / DATE日期: 2010.05.30      LEVEL-II SIGN / DATE日期: 2010.05.30  
质量经理 / QCM: [Signature]      用户CUSTOMER: [Signature]  
签字 SIGN / 日期 DATE: 2010.5.30      签字 SIGN / 日期 DATE: [Signature]

**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-000738**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 29-Jun-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0673**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>Descriptor:</b>	

**Date the Non-Conformance Report was written:** 06-Apr-2010**Description of Non-Conformance:**

During random in-process verification of D/E corner seam of North Tower Lift 4, this QA Inspector discovered the following issues:

- Observed Shielded Metal Arc Welding (SMAW) for repair on D/E corner seam of North Tower Lift 4.
- This repair welding (4th time) has been performed without prior approval of the engineer.
- This repair was previously (3rd time) performed at the same location as per CWR report T-CWR609, Rev. 0 dated April 4, 2010.
- ZPMC NDT personnel rejected the 3rd time repair by Ultrasonic Testing (UT) at this same location.
- The weld number is identified as NSTL4-3B/L-2A/B.
- The Y location of the repair is identified as 1630mm
- The welder is identified as #052493.
- The member is located in Bay 10.

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

ZPMC stopped the repair in progress and submit a new CWR to represent the work being done. ZPMC QA to educate the operators and QC about the importance of using and verifying the documents on hand before repair begin.

**Corrective action taken:**

WRR for the repair was submitted and NDT reports for the repaired area also submitted confirming the repair was acceptable. ZPMC agreed to increase CWi presence to strengthen supervision to prevent future occurrence.

**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 , who represents the Office of Structural Materials for

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# QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

( Continued Page 2 of 2 )

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your project.

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**Inspected By:** Ng,Michael

Quality Assurance Inspector

**Reviewed By:** Devey,Jim

QA Reviewer