

**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-000384**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 14-Aug-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0358**Type of problem:****Welding****Concrete****Other****Welding****Curing****Procedural****Bridge No:** 34-0006**Joint fit-up****Coating****Other****Component:** North Tower**Procedural****Procedural****Description:** North Tower, Lift 1, Diaphragm to Fit Lug weld**Reference Description:** Missed MT indication on North Tower, Lift 1, Skin E, 38m Diaphragm to Fit Lug weld**Description of Non-Conformance:**

During Magnetic Particle Testing (MT) of North Tower Lift 1, Skin E, 38m Diaphragm to Fit Lug weld, designated as NSD1-A166F/J-90, QA discovered a 10mm long linear indication. This weld was previously tested and accepted by ZPMC MT Technicians.

**Applicable reference:**

Special Provisions Section 8.3 – “Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents.”

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

**Who discovered the problem:** Nagalingam Pandaram Pillai

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Name of individual from Contractor notified:** Zhu Fong

**Time and method of notification:** 8-14-09, 11:00; Verbal

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

**Time and method of notification:** 8-24-09, 10:30; Verbal

**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.

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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  
 375 BURMA ROAD  
 OAKLAND CA 95607

**Date:** 25-Aug-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:** 05.03.06-000347

**Subject:** NCR No. ZPMC-0358

**Reference Description:** Missed Indication (MT) / North Shaft Lift 1 / Fit Lug Weld

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 Magnetic Particle Testing (MT) of North Tower Lift 1, Skin E, 38m Diaphragm to Fit Lug weld, designated as NSD1-A166F/J-90, QA discovered a 10mm long linear indication. This weld was previously tested and accepted by ZPMC MT Technicians.

Special Provisions Section 8.3 – “Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents.”

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

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

Propose a resolution for the identified non-conformance including documentation that the deficiency has been brought into compliance with the contract requirements. Additionally address the probable causes for the indication and any actions that will be taken to limit future occurrences.

In addition to the material/workmanship non-conformance, propose a resolution that addresses the failure of Quality Control to identify the linear indication during magnetic particle testing of the weld. Provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences.

**Transmitted by:** Scott Kennedy Sr. Bridge Engineer  
**Attachments:** ZPMC-0358

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

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000347

**Subject:** NCR No. ZPMC-0358

**Dated:** 27-Aug-2009

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000352 **Rev:** 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** ABF has hired several MT technicians to perform overchecks of several types of welds and is conducting an investigation of why ZPMC is experiencing cracking of welds.

ABF has notified ZPMC of the missed MT indications and ZPMC will submit a CVR to complete the necessary repairs. ABF has taken action by hiring several MT technicians to perform overchecks of several types of welds due to the amount of missed indications. ABF is also conducting an investigation of why ZPMC is experiencing cracking of welds. This investigation is being performed by both onsite ABF personnel as well as welding experts hired by ABF for this purpose. Recently CT has brought in their own welding consultant to discuss ABF findings and preventive actions. Preventive actions such as increased preheats have been discussed with ZPMC. When the investigation is completed, ABF will submit the findings to ZPMC and CT. ZPMC will submit the repair documents at a later date to close this NCR.

### Submitted by:

**Attachment(s):** ABF-NPR-000352R00

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### Caltrans' comments:

**Status:** REJ

**Date:** 02-Sep-2009

The Department will consider closure of this NCR once the repair documents are submitted, reviewed and found to be acceptable.

**Submitted by:** Lee, Ken

**Date:** 02-Sep-2009

**Attachment(s):**

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000347

**Subject:** NCR No. ZPMC-0358

**Dated:** 03-Dec-2009

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000352 **Rev:** 01

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### Contractor's Proposed Resolution:

**Reference Resolution:** Attached are the documents requested in Caltrans' response to ABFJV's NPR. Based on these documents, ZPMC requests closure of this NCR.

Attached are the documents requested in Caltrans' response to ABFJV's NPR. Based on these documents, ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000352R01;

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### Caltrans' comments:

**Status:** CLO

**Date:** 10-Dec-2009

Based on the course of action described in ABF-NPR-000352R0 and the evidence of acceptability submitted in this NPR, the Department concurs that Non-conformance ZPMC-0358 is closed.

**Submitted by:** Lee, Ken

**Attachment(s):**

**Date:** 10-Dec-2009



No. T-055

## LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2009-9-15

REGARDING: NCR-000384(ZPMC-0358)

ZPMC received NCR-000384(ZPMC-0358), it mentioned that CT inspector discovered an approximately 10mm length linear indication on 38m diaphragm to fit lug weld of Lift 1 North Tower Skin E, which were previously tested and accepted by ZPMC MT technicians. The relational weld was NSD1-A166F/J-90.

ZPMC acknowledged this problem, and already put forward ZPMC's internal NCR-T-068. For this situation, ZPMC had issued a CWR and then repaired it. Finally performed re-inspection by MT, and also such weld was re-inspected and accepted by CT inspector. In order to avoid such problem occurs again ZPMC will perform NDT work according to related procedures strictly, and enhance QC be more responsible. Here attached the CWR, VT and MT reports to prove the weld was perfect after repairing.

So ZPMC hope Caltrans could take a review and consider close the NCR.

**ATTACHMENT:**

ZPMC's NCR-T-068

NCR-000384(ZPMC-0358)

T-CWR228

T-VT-9374

T787-MT-5773

T787-MT-5773R1

*Wu Shuangbao*

*2009. 9. 15*



# 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 编号: NCR-T-068 (ZPMC-0358)

Item: Missed indication(MT)  
 名称描述: MT 漏检

Item Number:  
 件号:  
 Lift 1 North Tower  
 Skin E  
 38m diaphragm  
 Fit Lug Weld

Drawing: 图号:  
 NSD1-A166F/J-90

Location: bay 10  
 位置: 10#车间

Date:  
 日期: 2009-09-07

Description of Nonconformance: 不符合项状态描述:

CT inspector discovered an approximately 10mm long linear indication on 38m diaphragm to fit lug weld of Lift 1 North Tower Skin E, during Magnetic Particle Testing. This weld was previously tested and accepted by ZPMC QC MT technicians.

Special Provisions Section 8.3: Quality Control shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents.

AWS D1.5-2002, Section 6.26.2: Welds that are subject to MT in addition to visual inspection shall have no cracks.

CT 检验员在对北一 E 面板与 38m 隔板处定位块焊缝 NSD1-A166F/J-90 进行 MT 复探时发现了 10mm 长的线性缺陷。

根据标书规定: 承包方必须对焊缝做好检验工作以保证焊缝符合标书和工艺文件的要求。

根据 AWS 规定: 除目检之外进行 MT 检测的焊缝严禁有裂纹。

Work By: *Li Liming*  
 施工方: 2009.09.13

Prepared by: *Zhang Yanli*  
 准备: 2009.09.07

Reviewed by QCE: *(Signature)*  
 质量工程师批准: 9.7

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

Disposition:  Use as is 回用      Repair 返修      Reject 拒收

Recommendation:

建议: *重新探伤并出具报告*  
 Reinspection and issue repair report.

Prepared by: *Li Liming*  
 准备: 2009.09.13

Approved by QCA: \_\_\_\_\_  
 质量经理批准

Reason for Nonconformance:

不符合原因:

线性缺陷漏检

Discover linear defect.

Prevention of Re-occurrence:

预防措施:

加强检测, 降低检验速度

Enhance inspect and reduce inspection speed.

Approved by/批准:

*[Signature]*

Technical Justification for Use-As-Is/Repair:

回用或返修的技术依据:

Attachment

附件

Non-attachment

无附件

2009.09.16

Reviewed /批准: \_\_\_\_\_

Verification:

确认:

Acceptable

可接受

Unacceptable

不可接受

Verified by QCI/质检确认: \_\_\_\_\_

Reviewed by QCA/质检主任审核: \_\_\_\_\_

#R787-QCP-1300

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: 25-Aug-2009  
Contract No: 04-0120F4  
04-SF-80-13.2 / 13.9  
Job Name: SAS Superstructure  
Document No: 05.03.06-000347  
Subject: NCR No. ZPMC-0358  
Reference Description: Missed Indication (MT) / North Shaft Lift 1 / Fit Lug Weld

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 Magnetic Particle Testing (MT) of North Tower Lift 1, Skin E, 38m Diaphragm to Fit Lug weld, designated as NSD1-A166F/J-90, QA discovered a 10mm long linear indication. This weld was previously tested and accepted by ZPMC MT Technicians.

Special Provisions Section 8.3 – "Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents."

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

### Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance including documentation that the deficiency has been brought into compliance with the contract requirements. Additionally address the probable causes for the indication and any actions that will be taken to limit future occurrences.

In addition to the material/workmanship non-conformance, propose a resolution that addresses the failure of Quality Control to identify the linear indication during magnetic particle testing of the weld. Provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences.

Transmitted by: Scott Kennedy Sr. Bridge Engineer

Attachments: ZPMC-0358

cc: Rick Morrow, Gary Pursell, Mark Woods, Doug Coc, Doug Wright

File: 05.03.06

02.02.15.04

h 05.03.06-000347.NCT

Received  
NCT-000347 25 Aug 09

**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-000384

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 14-Aug-2009

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

NCR #: ZPMC-0358

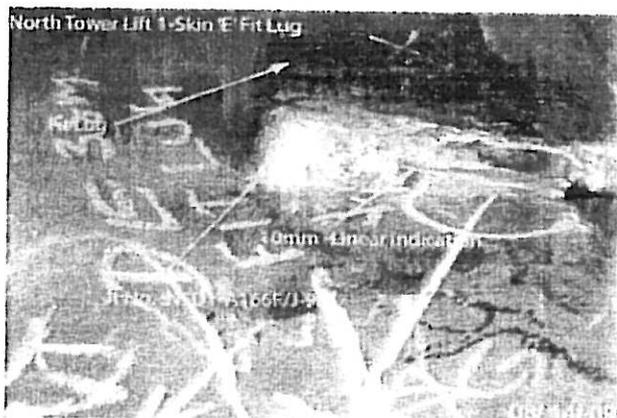
### Type of problem:

Welding  Concrete  Other Welding  Curing  Procedural  Bridge No: 34-0006Joint fit-up  Coating  Other  Component: North TowerProcedural  Procedural  Description: North Tower, Lift 1, Diaphragm to Fit Lug weld

Reference Description: Missed MT indication on North Tower, Lift 1, Skin E, 38m Diaphragm to Fit Lug weld

### Description of Non-Conformance:

During Magnetic Particle Testing (MT) of North Tower Lift 1, Skin E, 38m Diaphragm to Fit Lug weld, designated as NSD1-A166F/J-90, QA discovered a 10mm long linear indication. This weld was previously tested and accepted by ZPMC MT Technicians.



### Applicable reference:

Special Provisions Section 8.3 – “Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents.”

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

Who discovered the problem: Nagalingam Pandaram Pillai

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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( Continued Page 2 of 2 )

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**Name of individual from Contractor notified:** Zhu Fong

**Time and method of notification:** 8-14-09, 11:00; Verbal

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

**Time and method of notification:** 8-24-09, 10:30; Verbal

**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.

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**Inspected By:** Sinevod,Serge

ASMR

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**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.:	NSD1-A166F/J	报告编号 Report No.:	T-CWR228
合同号 Contract No.:	04-0120F4	部件名称 Item Name:	Tower(N) 1 <sup>st</sup> lifting fit lug plate and skin E	NDT 报告编号 NDT Report No.:	T787-MT-5773
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述:

Description of Welding Discontinuity:

在对NSD1-A166F/J-90检测时, 发现1处线性缺陷。

Welder ID No. (焊工编号): 050041      Position:(位置): 3G

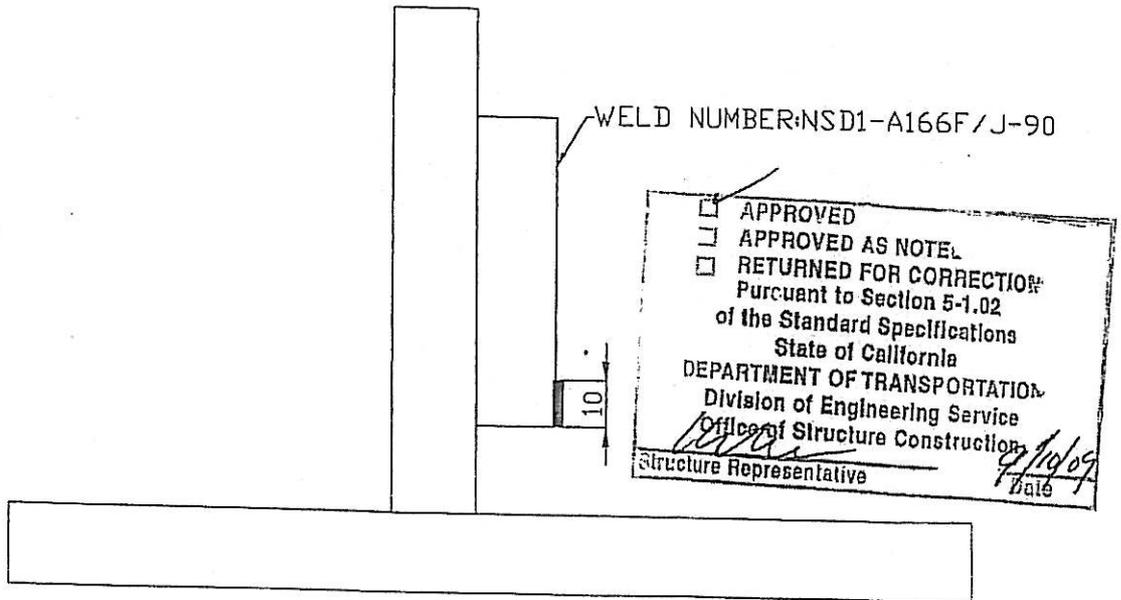
One line indication was found by use of MT on NSD1-A166F/J-90.

*Gu Yunwu*

检验员 (Inspector): Gu Yunwu      日期 (Date): 2009.08.14

焊缝返修位置示意图:

Draft of Welding Discontinuity:



产生原因:

Cause:

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

车间负责人 (Foreman): *Lu Yefer*

日期 (Date): *09.09.09*

处理意见

Disposition :

1. QC shall monitor and direct the welder and the grinder doing the repair operation.
2. Preheat before gouging; the temperature shall be at least 65°C.
3. Gouge the weld to remove identified defects.
4. Joint details shall refer to the approved WPS repair.
5. Grind the gouged areas to a smooth and shiny surface.
6. Verify with VT and MT to ensure no defects remain in the weld joint prior to welding.
7. QC shall monitor all welding passes being deposited.
8. QC shall ensure all slag has been removed prior the deposition of next pass.
9. Preheat and maintain interpass temperature control in accordance with the WPS.
10. Blend the weld repaired areas into the adjacent weld or base metal by grinding.
11. Perform VT, MT and UT NDT inspection to the repaired areas.

- 1、在返修过程中, QC 应该监控和指导焊工和打磨工;
- 2、碳刨之前必须先进行预热, 温度不低于 65° C;
- 3、碳刨去除缺陷;
- 4、缺陷被完全消除后, 必须准备一个正确的接头型式, 具体接头型式请参见对应的修补焊接工艺规程(WPS);
- 5、将碳刨面打磨光滑;
- 6、在准备好焊接接头焊接前, 用 VT 和 MT 检测缺陷被完全消除;
- 7、在返修过程中, QC 确认焊道清理干净;
- 8、在进入下到焊缝前, QC 应该保证所有的缺陷已经去除;
- 9、根据 WPS 控制预热和焊道的温度;
- 10、打磨返修区域与邻近焊缝和母材持平;
11. VT, MT 和其它 NDT 检测焊缝。

<input checked="" type="checkbox"/>	APPROVED
<input type="checkbox"/>	APPROVED AS NOTED
<input type="checkbox"/>	RETURNED FOR CORRECTION
Purquant to Section 5-1.02	
of the Standard Specifications	
State of California	
DEPARTMENT OF TRANSPORTATION	
Division of Engineering Service	
Office of Structure Construction	
<i>Lu Yefer</i>	<i>9/9/09</i>
Structure Representative	1153

工艺:

Technical Engineer: *Li Jun*

审核:

Approved By: *Lu Yefer*

日期:

Date: *9/9/09*

#R787-QCP-900



# 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.:	NSD1-A166F/J	报告编号 Report No.:	T-CWR228
合同号 Contract No.:	04-0120F4	部件名称 Item Name:	Tower(N) 1 <sup>st</sup> lifting fit lug plate and skin E	NDT 报告编号 NDT Report No.:	T787-MT-5773
项目编号 Project No.:	ZP06-787				

### 纠正措施:

#### Corrective Action to Prevent Re-occurrence:

1. 返修前, QC确认有效的预热, 以将水汽全部去除。

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

车削负责人 (Foreman):

*Zu Yefei*

日期 (Date):

*07.07.09*

参照的WPS编号  
Repair WPS No.:

WPS-345+485-SM  
AW-1G(1F)-Repair  
WPS-345+485-SM  
AW-2G(2F)-Repair  
WPS-345+485-SM  
AW-3G(3F)-Repair

工艺员  
Technologist:

*Lijun*

返修(碳刨)前预热温度  
Preheat Temperature  
Before Gouging:

*Grand Clean*

返修的缺陷  
Description  
of Discontinuity:

*Crack.*

焊前处理检查  
Inspection  
Before Welding:

*VT Acc  
MT Acc*

焊前预热温度  
Preheat Temperature  
Before Welding:

*205 °C*

最大碳刨深度  
Max. Depth of Gouge:

*NA*

碳刨总长  
Total Length of Gouge:

*NA*

焊工  
Welder:

*050289.*

焊接类型  
Welding  
Type:

*SAW*

焊接位置  
Position:

*3G*

焊接电流  
Current:

*175 A*

焊接电压  
Voltage:

*24.5 V*

焊接速度

APPROVED

APPROVED AS NOTED

RETURNED FOR CORRECTION

Purquant to Section 5-1.02

of the Standard Specifications

State of California

DEPARTMENT OF TRANSPORTATION

Division of Engineering Service

Office of Structure Construction

Structure Representative

*105 mm/min*

*07.07.09*

*07.07.09*

*07.07.09*

*07.07.12*

返修后检查  
Inspection After Repair:

外观检查  
VT Result:

*VT Acc*

检验员  
Inspector:

*Liangyong*

NDT复检  
NDT Result:

*MT: Acc*

探伤员  
NDT Person:

*Lijun*

见证:  
Witness/Review:

备注:  
Remark:

#R787-QCP-900







# REPORT OF MAGNETIC PARTICLE EXAMINATION

## 磁粉检测报告

REPORT NO. 报告编号 T787-MT-5773R1      DATE日期 2009.09.12      PAGE OF页码 1/1      Revision No: 0

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

DRAWING NO.      NSD1-A166F/J      CALTRANS CONTRACT NO.:  
 图号:      Tower(N) 1st lifting fit lug plate and skin E      加州工程编号      04-0120F4

REFERENCING CODE      ACCEPTANCE STANDARD      PROCEDURE NO.      CALIBRATION DUE DATE  
 参考规范编码      接受标准      程序编号      仪器校正有效期  
 AWS D1.5-2002      AWS D1.5-2002      ZPQC-MT-01      Dec. 28<sup>ST</sup>, 2009

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

MAGNETIZING METHOD      Continuous magnetic yoke      CURRENT      AC  
 磁化方法      磁轭式连续法      电流

PARTICLE TYPE      Dry magnet powder      YOKE SPACING      70~150mm  
 磁粉类型      干磁粉      磁轭间距

MATERIAL TO BE EXAMINED       WELDING 焊接件      Material & thickness      A709M-345T2-Z/A709M-HPS485  
 检测材料       CASTING 铸件      母材, 厚度      25/75mm  
     FORGING 锻造

WELDING PROCESS      SMAW      TYPE OF JOINT      T-JOINT  
 焊接方法      焊缝类型

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			
NSD1-A166F/J-90	1R1			ACC.		100%MT

AFTER T - CWR 228

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EXAMINED BY主探 Gu Yunwu <i>Gu Yunwu</i> LEVEL - II SIGN 签名 / DATE日期      09.09.12	REVIEWED BY 审核 <i>Calix</i> LEVEL-II SIGN / DATE日期      09.09.12
质量经理 / QCM	用户CUSTOMER
签字 SIGN / 日期 DATE	签字 SIGN / 日期 DATE

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, PRC**Report No:** NCS-000298**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 23-Sep-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0358**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:** 14-Aug-2009**Description of Non-Conformance:**

During Magnetic Particle Testing (MT) of North Tower Lift 1, Skin E, 38m Diaphragm to Fit Lug weld, designated as NSD1-A166F/J-90, QA discovered a 10mm long linear indication. This weld was previously tested and accepted by ZPMC MT Technicians.

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

Repair affected weld.

**Corrective action taken:**

The weld has been repaired, verified by QA, and subsequently green tagged.

**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