

**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-000084**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 02-Mar-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0082**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> DP-027-001
<b>Procedural</b>	<b>Procedural</b>	<b>Descriptor:</b>	OBG Deck Panel

**Description of Non-Conformance:**

The Contractor performed repairs on components without receiving prior Engineer approval. The Contractor performed base metal repairs on areas that were damaged during the tack welding process. This occurred on welds #3 through #8 of deck panel DP-027-001.

**Applicable reference:**

AWS D1.5, Section 3.7.4 and Welding Quality Control Plan (WQCP), Section 9.2.1.2: "Prior approval of the Engineer shall be obtained for repairs to the base metal."

**Who discovered the problem:** Alfredo Acuna**Name of individual from Contractor notified:****Time and method of notification:****Name of Caltrans Engineer notified:** Sean Eagan**Time and method of notification:** Verbal notification on 03-04-2008**QC Inspector's Name:** Lay Tao**Was QC Inspector aware of the problem:** Yes No**Contractor's proposal to correct the problem:****Comments:**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

**Inspected By:** Lowry,Patrick

Quality Assurance Inspector

**Reviewed By:** Lowry,Patrick

QA Reviewer



**DEPARTMENT OF TRANSPORTATION**  
666 Feng Bin Road Room 708, Changxing Island  
Shanghai 201913 PR China  
Tel: 021-56856666 ext 207061 Fax:

## NON-CONFORMANCE REPORT TRANSMITTAL

**To:** American Bridge /Fluor Enterprises, a JV  
375 Burma Road  
Oakland CA 94607

**Date:** 10-Mar-2008

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

**Attention:** Dave Williams            Consultant

**Job Name:** SAS Superstructure

**Document No:** 05.03.06-000052

**Subject:** NCR No. ZPMC-0082

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

- Non-Conformance with quality control procedures. Please take appropriate corrective action. Recurrence may require further administrative action.
- Non-Conformance with quality control. Records indicate that this is a recurring issue and constitutes a systematic problem in quality control. Within fourteen (14) days, please submit a plan to correct the deficiency.
- Material or workmanship is not in compliance with contract requirements.

**Enclosed please find the following items:**

**NCR No:** ZPMC-0082

**Remarks:**

Please see attached Non-Conformance Report for details.

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

**cc:** Rick Morrow, Gary Pursell, Stanley Ku, Brian Boal, Jason Tom, Dave Williams

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000052

**Subject:** NCR No. ZPMC-0082

**Dated:** 19-Aug-2008

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000077 **Rev:** 00

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**Contractor's Proposed Resolution:**

**Reference Resolution:** Repairs that require Engineer's approval shall be submitted in writing for approval prior to commencing repairs.  
Please see attached letter.

**Submitted by:** Kanapicki, Charles  
**Attachment(s):** ABF-NPR-000077R00;

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**Caltrans' comments:**

**Status:** REJ

**Date:** 10-Sep-2008

The response is not acceptable. Please provide documentation of the repair that was performed, and documentation that the required Non-Destructive Testing of the repaired area is acceptable.

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

**Date:** 10-Sep-2008



American  
Bridge

**FLUOR**

A JOINT VENTURE

August 19, 2008

Reply to: SL-ABF-08-0172

**Attention: Gary Pursell**

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

**Subject: NCR# ZPMC-0082**

Mr. Pursell:

This letter is issue to provide formal response addressing the proposed resolution to NCR# ZPMC-0082.

ZPMC understands the requirements for base metal repairs in accordance with AWS D1.5-02 and the Contract Special Provisions. Repairs that require the Engineers approval shall be submitted in writing for approval prior to commencing repairs.

Please feel free to contact me directly if you require assistance or further clarification.

Sincerely,

Nate Lindell  
Quality Assurance Manager  
**AMERICAN BRIDGE / FLUOR JV**

cc: file

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000052

**Subject:** NCR No. ZPMC-0082

**Dated:** 24-Sep-2008

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000077 **Rev:** 01

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**Contractor's Proposed Resolution:**

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

Please find attached.

**Submitted by:**

**Attachment(s):** ABF-NPR-000077R01;

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**Caltrans' comments:**

**Status:** CLO

**Date:** 05-Nov-2008

The proposed resolution is acceptable. The repair procedure was submitted as part of ABF-SUB-634R06, and approved as noted. Also, the welds in question were accepted as shown on the attached NDT reports. The Department concurs that Non-Conformance ZPMC-0082 is closed.

**Submitted by:** Wright, Doug

**Date:** 06-Nov-2008

**Attachment(s):**



No. B-295

## LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2008-8-28

REGARDING:

NCR-000069/000070/000078/000114/000095/000098/000097/000115/000118/000084/000123

With this letter of response, ZPMC requests closure for Caltrans NCR-000069/000070/000078/000114/000095/000098/000097/000115/000118/000084/000123 (ZPMC-0067/0068/0076/0110/0093/0096/0095/0111/0113/0082/0119). All of the non-conformance reports describe it is that zpmc repair the deck panel in the work process without received the engineer approval. As considered the welding continuity in the workshop, we directly repaired the defects which caused by the cease-arc, so that the panel fabrication can keep on performing. But not waiting for the CWR report approval for a few days. At the same time we had provided the repair procedure for welding process to government's approval. Then ZPMC can repair any defects in process following that procedure.

Furthermore we also attach the correlative VT and NDT reports which after repair and the final inspection, So that it's can prove those deck panel have reached the special requirements.

So ZPMC considers

NCR-000069/000070/000078/000114/000095/000098/000097/000115/000118/000084/000123 can be closed.

Please reference attached documentation for acceptance and closure the NCR-000069/000070/000078/000114/000095/000098/000097/000115/000118/000084/000123.

ATTACHMENT:

NCR-000069/000070/000078/000114/000095/000098/000097/000115/000118/000084/000123 (ZPMC-0067/0068/0076/0110/0093/0096/0095/0111/0113/0082/0119)

VT and MT reports which in the repair process

FVT and final MT reports for the deck panels

*Zhuo Shuangbao*

*2008.8.28.*

*Thomas W Lamb*  
ABF QCM  
9 SEPT. 08



DEPARTMENT OF TRANSPORTATION  
656 Feng Bin Road Room 708, Changxing Island  
Shanghai 201313 PR China  
Tel: 021-56856666 ext 207061 Fax:

## NON-CONFORMANCE REPORT TRANSMITTAL

To: American Bridge /Fluor Enterprises, a JV  
375 Burma Road  
Oakland CA 94607

Date: 10-Mar-2008

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

Attention: Dave Williams Consultant

Job Name: SAS Superstructure

Document No: 05.03.06-000052

Subject: NCR No. ZPMC-0082

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

- Non-Conformance with quality control procedures. Please take appropriate corrective action. Recurrence may require further administrative action.
- Non-Conformance with quality control. Records indicate that this is a recurring issue and constitutes a systematic problem in quality control. Within fourteen (14) days, please submit a plan to correct the deficiency.
- Material or workmanship is not in compliance with contract requirements.

Enclosed please find the following items:

NCR No: ZPMC-0082

Remarks:

Please see attached Non-Conformance Report for details.

Transmitted by: Stanley Ku Sr. Bridge Engineer

cc: Rick Morrow, Gary Pursell, Stanley Ku, Brian Boal, Jason Tom, Dave Williams

File: 05.03.06

DEPARTMENT OF TRANSPORTATION  
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Contract #: 04-0120F4

City: 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-000084

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 02-Mar-2008

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

NCR #: ZPMC-00

### Type of problem:

Welding  Concrete  Other   
 Welding  Curing  Procedural  Bridge No: 34-0006  
 Joint fit-up  Coating  Other  Component: DP-027-001  
 Procedural  Procedural  Descriptor: OBG Deck Panel

### Description of Non-Conformance:

The Contractor performed repairs on components without receiving prior Engineer approval. The Contractor performed base metal repairs on areas that were damaged during the tack welding process. This occurred on welds #3 through #8 of deck panel DP-027-001.

### Applicable reference:

AWS D1.5, Section 3.7.4 and Welding Quality Control Plan (WQCP), Section 9.2.1.2: "Prior approval of the Engineer shall be obtained for repairs to the base metal."

Who discovered the problem: Alfredo Acuna

Name of individual from Contractor notified:

Time and method of notification:

Name of Caltrans Engineer notified: Sean Eagan

Time and method of notification: Verbal notification on 03-04-2008

QC Inspector's Name: Lay Tao

Was QC Inspector aware of the problem:  Yes  No

Contractor's proposal to correct the problem:

### Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

Inspected By: Lowry, Patrick

Quality Assurance Inspector

Reviewed By: Lowry, Patrick

QA Reviewer





# REPORT OF MAGNETIC PARTICLE EXAMINATION

## 磁粉检测报告

REPORT NO. 报告编号 B787-MT-3089      DATE日期 2008.03.14      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: DP27      CALTRANS CONTRACT NO.: 加州工程编号: 04-0120F4  
 OBG DECK PLATE

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>th</sup>, 2008

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

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      Material & thickness 母材, 厚度: A709M-345T2-X-S 12/14mm  
 CASTING 铸件  
 FORGING 锻造

WELDING PROCESS 焊接方法: GMAW      TYPE OF JOINT 焊缝类型: T-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			
DP027-001-003				ACC.		TACK WELD
DP027-001-004				ACC.		TACK WELD
DP027-001-005				ACC.		TACK WELD
DP027-001-006				ACC.		TACK WELD
DP027-001-007				ACC.		TACK WELD
DP027-001-008				ACC.		TACK WELD
BLANK						

EXAMINED BY 主操: *L. L. ...* 2008.03.14

REVIEWED BY 审核: *Wu Jianping*

LEVEL - II SIGN 签名 / DATE 日期

LEVEL-II SIGN / DATE 日期: 2008.03.14

质量经理 / QCM

签字 SIGN / 日期 DATE

用户 CUSTOMER

签字 SIGN / 日期 DATE



周数: 34  
日期: 2008.06.26

**Visual Weld Inspection Report**  
**焊缝目视检查报告**

Girder/梁: OBG Urib  
Tower/塔: NA

Caltrans Contract No.: 04-0120F4  
加州合同编号

Representative: 质检代表:  
Lin Jianhua

Project No.: San Francisco Oakland Bay Bridge  
项目名称: 美国海湾大桥

CWI: 检验员:  
Lang Saito 07/2008/1

Project No.: ZP06-787  
项目编号:

Quality Assurance Manager  
~Approval  
质量控制经理:  
Hufeng

Weld No. 焊缝编号	Welder I.D.# 焊工识别号	Location 位置	Welding consumables 焊接材料	Undercut 咬边	Porosity 气孔	Overlap 焊瘤	Crater 弧坑	Arc strike 电弧擦伤	Spatters 飞溅	Crack 裂纹	Accept or Reject 接受或拒收	Repair 返修	Accept or repair 返修后接受 或拒收
DP027-001-001	059468	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP027-001-002	059378	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP027-001-003	059468	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP027-001-004	059378	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP027-001-005	059361	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP027-001-006	059421	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP027-001-007	059361	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP027-001-008	059421	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP027-001-009	059403	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP027-001-010	059421	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA

After root weld

After cover pass

After CWR or WRR No.:

After HSR No.:

Others

HR787-QCP-603

"✓" is no defects. "X" is defects. "NA" is not applicable.



# REPORT OF MAGNETIC PARTICLE EXAMINATION

## 磁粉检测报告

REPORT NO. 报告编号 B787-MT-1897      DATE日期 2008.06.29      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: DP27 OBG U-RIB      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>th</sup>, 2008

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

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-345T2-X-S 12/14mm

WELDING PROCESS 焊接方法: GMAW+SAW      TYPE OF JOINT 焊缝类型: T-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			
DP027-001-001				ACC.		10%MT
DP027-001-002				ACC.		10%MT
DP027-001-003				ACC.		10%MT
DP027-001-004				ACC.		10%MT
DP027-001-005				ACC.		10%MT
DP027-001-006				ACC.		10%MT
DP027-001-007				ACC.		10%MT
DP027-001-008				ACC.		10%MT
DP027-001-009				ACC.		10%MT
DP027-001-010				ACC.		10%MT

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EXAMINED BY 主检: Wang Wei      REVIEWED BY 审核: Li Linying 2008.06.29

LEVEL - II SIGN 签名 / DATE 日期: 08.06.29      LEVEL-II SIGN / DATE 日期: 08.06.29

质量经理 / QCM      用户 CUSTOMER

签字 SIGN / 日期 DATE      签字 SIGN / 日期 DATE



A JOINT VENTURE

**AMERICAN BRIDGE/FLUOR ENTERPRISES, a JV**

375 Burma Road Oakland CA 94607  
Phone 510-808-4600 / Fax 510-808-4601

**NCR PROPOSED RESOLUTION**

**To:** California Department of Transportation  
333 Burma Road  
Oakland CA 94607

**Date:** 01-Oct-08

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

**Attention:** Pursell, Gary  
Resident Engineer

**Job Name:** Self-Anchored Suspension Bridge

**Ref:** 05.03.06-000052

**Document No.:** ABF-NPR-000077 **Rev:** 02

**Subject:** NCR No. ZPMC-0082

**Contractor's Proposed Resolution:**

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

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

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

**Submitted by** Kanapicki, Charles

**Attachment(s)**

**Caltrans' comments:**

**Submitted by**  
**Attachment(s)**

**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-000112**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 06-Nov-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0082**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:** 02-Mar-2008**Description of Non-Conformance:**

The Contractor performed repairs on components without receiving prior Engineer approval. The Contractor performed base metal repairs on areas that were damaged during the tack welding process. This occurred on welds #3 through #8 of deck panel DP-027-001.

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

The Contractor provided the MT reports after tack weld and VT and MT reports after cover pass, submittal 634R06 addressed tacl weld repair procedures.

**Corrective action taken:**

Although the Contractor's response does not address the systemic issue of the Contractor performing repairs without notifying the Engineer, METS closed the NCR based on Construction's direction.

**Did corrective action require Engineer's approval?** Yes No**If so, name of Engineer providing approval:** Stanley Ku and Doug Wright **Date:** 06-Nov-2008**Is Engineer's approval attached?** Yes No Email of concurrence to close NCR is on file.**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 Sang Le, who represents the Office of Structural Materials for your project.

**Inspected By:** Dautermann, Peter

Quality Assurance Inspector

**Reviewed By:** Dautermann, Peter

QA Reviewer