

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

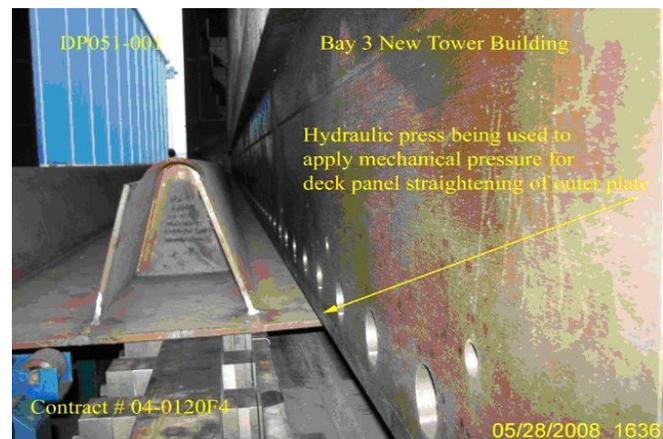
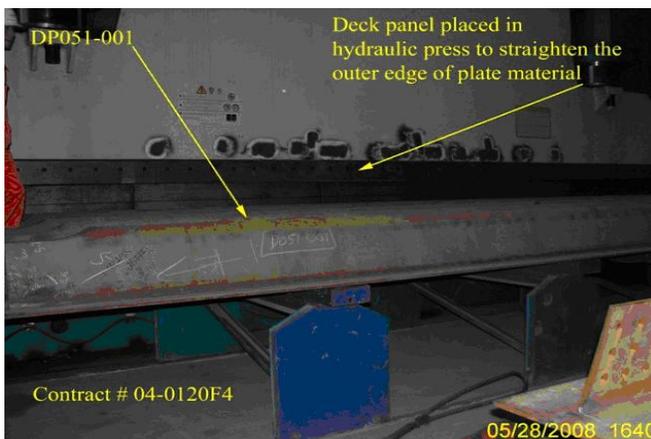
Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, PRC**Report No:** NCR-000138**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 28-May-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0132**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: DP051-001
Procedural	Procedural	Descriptor: OBG Deck Panel	

Reference Description: Unapproved Mechanical Straightening**Description of Non-Conformance:**

The Contractor performed straightening of members using means that have not been approved by the Engineer.

The Contractor placed the deck panel DP051-001 into a hydraulic press plate bender and applied pressure to straighten the outer edge of the panel. This straightening of the deck panel plate was not approved by the Engineer as required by AWS D1.5, Section 3.7.3 which states, "Members distorted by welding shall be straightened by mechanical means or by carefully supervised application of a limited amount of localized heat as approved by the Engineer."

**Applicable reference:**

AWS D1.5, Section 3.7.3: "Members distorted by welding shall be straightened by mechanical means or by carefully supervised application of a limited amount of localized heat as approved by the Engineer."

Who discovered the problem: QA Inspector Roscoe Dixon**Name of individual from Contractor notified:** ABFJV QC Inspector David Larue**Time and method of notification:** Approximately 1700 hours by phone on 5-28-08

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: Verbally at 1415 hours on 5-29-08

QC Inspector's Name: ZPMC QC Inspector Wang Lu approximately 1700 hours in person

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:	Velasco, Abifhiram	SMR
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Reviewed By:	Lowry, Patrick	SMR
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DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
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, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 30-May-2008

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

Dear: Mr. Charles Kanapicki

Job Name: SAS Superstructure

Attention: Mr. Dave Williams Consultant

Document No: 05.03.06-000113

Subject: NCR No. ZPMC-0132

Reference Description: Unapproved Mechanical Straightening

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: OBG **Lift:**

Remarks:

The Contractor performed straightening of members using means that have not been approved by the Engineer. The Contractor placed the deck panel DP051-001 into a hydraulic press plate bender and applied pressure to straighten the outer edge of the panel. This straightening of the deck panel plate was not approved by the Engineer as required by AWS D1.5, Section 3.7.3 which states, "Members distorted by welding shall be straightened by mechanical means or by carefully supervised application of a limited amount of localized heat as approved by the Engineer."

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance to prevent future occurrences.

Transmitted by: Stanley Ku Sr. Bridge Engineer

Attachments: ZPMC-0132

cc: Rick Morrow, Gary Pursell, Brian Boal, Jason Tom, Ching Chao

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000113

Subject: NCR No. ZPMC-0132

Dated: 05-Aug-2008

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000063 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: Additional inspectors and training have been provided to aid in proper heat straightening technique.
Please see attached.

Submitted by: Kanapicki, Charles
Attachment(s): ABF-NPR-000063R00;

Caltrans' comments:

Status: REJ

Date: 11-Sep-2008

The response is not acceptable. Please provide the technical justification that the member after straightening conforms to Contract requirements, and provide the member straightening and inspection records.

Submitted by: Wright, Doug
Attachment(s):

Date: 11-Sep-2008

17 July 2008

Reply to: SL-ABF-08-0xxx

Attention: Gary Pursell

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

Subject: NCR# ZPMC-0132

Mr. Pursell:

This letter is issued to provide formal response addressing the proposed resolution to the following nonconformance reports:

NCR # ZPMC-0132

Unapproved Mechanical straightening

ZPMC understand the contact requirements for submitting heat straightening records for approval when required. Additional QC inspectors have been added to help insure proper approval is obtained prior to performing heat straightening. Additionally, training has been provided on proper straightening techniques.

If further clarifications are needed, please contact me.

Nate S. Lindell
Quality Assurance Manager
American Bridge Fluor Joint Venture

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000113

Subject: NCR No. ZPMC-0132

Dated: 23-Oct-2008

Contract No.: 04-0120F 4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000063 **Rev:** 01

Contractor's Proposed Resolution:

Reference Resolution: Attached are final visual and magnetic particle examination for closure.

Please find attached.

Submitted by:

Attachment(s): ABF-NPR-000063R01;

Caltrans' comments:

Status: RE J

Date: 06-Nov-2008

The proposed resolution is not acceptable. The VT and MT reports included in this NPR are for the closed rib welds on deck panel DP-051. There is no documentation of NDT performed along the edge of the deck panel in the area that was mechanical straightened. Also, the internal Non-Conformance Report included in this NPR relates to an issue different from Non-Conformance ZPMC-0132.

Submitted by: Wright, Doug

Date: 07-Nov-2008

Attachment(s):



TRANSMITTAL LETTER

PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 10/14/2008

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: NCR-000105/000082/000138 (ZPMC-0102/0080/0132) FOR CLOSURE

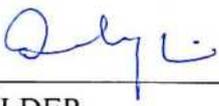
SUBMITTED FOR YOUR APPROVAL.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE WITH NO.B-312 FOR CLOSURE.
- (2) COPY OF NCR WITH NUMBER NCR-000105/000082/000138
(ZPMC-0102/0080/0132)
- (3) COPY OF INTERNAL NCR-B-036/022R1
- (4) COPY OF THE ZPMC INSPECTION REPORTS.

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:



PLAN HOLDER

RECEIVED 13 OCT 2008
1545

DATE



COMPANY

PHONE NO.

PLAN NUMBER: N/A
#R787-QCP-102



No. B-312

LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2008-10-14

REGARDING: NCR-000105/000082/000138 (ZPMC-0102/0080/0132)

With this letter of response, ZPMC requests closure for caltrans NCR-000105/000082/000138 (ZPMC-0102/0080/0132) . As the require of the NPR and ABF's response, ZPMC provide the corresponding documents to close these NCR.

The ZPMC-0080 attach the reports of the final visual and magnetic particle examination reports for the DP065-001.

The ZPMC-0102 attach the final visual and magnetic particle examination reports for the DP002-001 and DP137-001.

The ZPMC-0132 attach the final visual and magnetic particle examination reports for the DP051-001

So ZPMC considers NCR-000105/000082/000138 (ZPMC-0102/0080/0132) can be closed .

Please reference attached documentation for acceptance and closure the NCR-000105/000082/000138.

ATTACHMENT:

NCR-000105/000082/000138 (ZPMC-0102/0080/0132)

ZPMC internal NCR

The ZPMC inspection reports

Zhao Shuangbao

2008.10.14.

Handwritten signature
ABS QcM
15 OCT. 08

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 DIVISION OF ENGINEERING SERVICES
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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-000138

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 28-May-2008

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

NCR #: ZPMC-0132

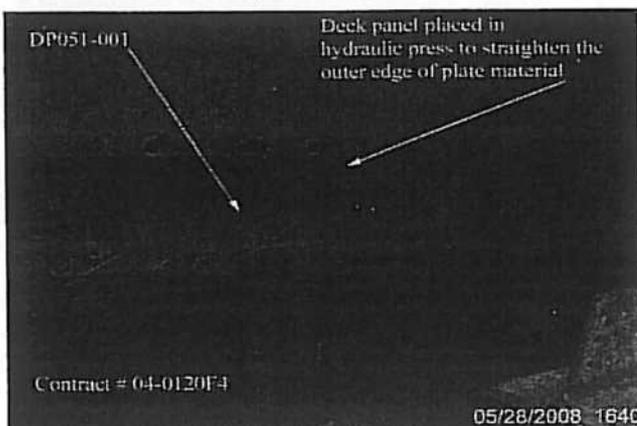
Type of problem:

Welding Concrete Other
 Welding Curing Procedural Bridge No: 34-0006
 Joint fit-up Coating Other Component: DP051-001
 Procedural Procedural Descripton: OBG Deck Panel

Reference Description: Unapproved Mechanical Straightening

Description of Non-Conformance:

The Contractor performed straightening of members using means that have not been approved by the Engineer. The Contractor placed the deck panel DP051-001 into a hydraulic press plate bender and applied pressure to straighten the outer edge of the panel. This straightening of the deck panel plate was not approved by the Engineer as required by AWS D1.5, Section 3.7.3 which states, "Members distorted by welding shall be straightened by mechanical means or by carefully supervised application of a limited amount of localized heat as approved by the Engineer."



Applicable reference:

AWS D1.5, Section 3.7.3: "Members distorted by welding shall be straightened by mechanical means or by carefully supervised application of a limited amount of localized heat as approved by the Engineer."

Who discovered the problem: QA Inspector Roscoe Dixon

Name of individual from Contractor notified: ABFJV QC Inspector David Larue

Time and method of notification: Approximately 1700 hours by phone on 5-28-08



Visual Weld Inspection Report
焊缝目视检查报告

Caltrans Contract No. 加州合同编号		04-0120F4		Girder/ 梁:		OBG Urib		周数	33				
Project No.: 项目名称		San Francisco Oakland Bay Bridge 美国海湾大桥		Tower/ 塔:		NA		日期	2008.06.14				
Project No.: 项目编号:		ZP06-787		Representative: 质检代表:		 Chen Xi 07/07/2021							
				Quality Assurance Manager ~Approval 质量控制经理:		 Huang							
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	Over lap 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 Reject after repair 返修后接受 或拒收
DP051-001-001	062265	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP051-001-002	059361	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP051-001-003	059378	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP051-001-004	059443	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP051-001-005	059378	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP051-001-006	059443	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP051-001-007	059468	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP051-001-008	059371	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP051-001-009	059468	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP051-001-010	059371	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
<input type="checkbox"/> After root weld													
<input type="checkbox"/> After CWR or WRR No.:													
<input checked="" type="checkbox"/> After cover pass													
<input type="checkbox"/> After HSR No.:													
<input type="checkbox"/> Others													

#R787-QCP-593

"✓" 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-1719 DATE日期 2008.06.19 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: DP51 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 ST , 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	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> 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			
DP051-001-001				ACC.		10%MT
DP051-001-002				ACC.		10%MT
DP051-001-003				ACC.		10%MT
DP051-001-004				ACC.		10%MT
DP051-001-005				ACC.		10%MT
DP051-001-006				ACC.		10%MT
DP051-001-007				ACC.		10%MT
DP051-001-008				ACC.		10%MT
DP051-001-009				ACC.		10%MT
DP051-001-010				ACC.		10%MT
BLANK						

EXAMINED BY主探 <i>Wang Wei</i> LEVEL - II SIGN 签名 / DATE日期 2008.06.19	REVIEWED BY 审核 <i>Cai Xinxin</i> LEVEL-II SIGN / DATE日期 2008.06.19
质量经理 / QCM <i>Hu Kang</i> 2008.6.19	用户CUSTOMER
签字 SIGN / 日期 DATE	签字 SIGN / 日期 DATE



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-000105 (ZPMC-0102)
 NCR 编号: NCR-B-036

Item: the weld joint was not complete simultaneously
 名称描述: U肋两侧焊缝没同时完成
 Item Number: DP-137-001
 件号: DP-002-001.
 Drawing Number: .
 图号:

Location: 3#和8#焊缝
 位置: 3#和8#焊缝
 Date: 2008-3-22
 日期: 2008-3-22

Description of Nonconformance:
 不符合项状态描述:
 The contractor welded closed ribs to box shell plate without welding the two stems of the closed rib simultaneously. Welding of closed ribs for deck panels DP-137-001 and DP-002-001 commenced on 03-21-2008. for unknown reasons, the SAW cover pass on one weld joint from each panel was not completed during the work shift the contractor finished welding of the incomplete joints on 03-22-2008. this occurred on weld #003 of deck panel DP-137-001 and on weld #008 of DP-002-001.
 ZPMC 在焊接过程中 U肋两侧并没有同时完成焊接. 在 3月21日焊接顶板 DP-137-001 and DP-002-001 的时候, 两块板单元上分别有一道盖面的埋弧焊没有完成, 原因不明, 在 22号才重新完成了该面焊接. 以上情况分别发生在 DP-137-001 的 3#焊缝和 DP-002-001 的 8#焊缝.

Work By: Zhang Yanjun Prepared by: Wang Lu Reviewed by QCE: Zhao Shuangbao
 施工方: 2008.4.19 准备: 2008.4.18 质量工程师批准: 2008.4.18
 Drawing Error Material Defect Fabrication Error Other
 图纸错误 材料缺陷 制作错误 其他原因

Disposition: Use as is Repair Reject
 处理措施: 回用 返修 拒收

Recommendation:
 建议 对未焊接完的焊缝打磨去潮, 经检验合格者, 继续按规范要烧焊.
 Grind the welds which were not completed. If it is acceptable by visual inspection, then perform PMT testing and weld according to requirements.
 Prepared by: LV Guang Bin Approved by QCA: Hu Gang
 准备 质量经理批准

Reason for Nonconformance:
 不符合原因: 第一台门式自动焊机1#焊臂突发故障(不起弧).
 There was something wrong with closed rib welding machine in the process of welding.
Prevention of Re-occurrence:
 预防措施: Check the weld machine to ensure the weld machine can work as normal.
 对自动焊机进行全面检查, 确保焊机正常使用.
 Approved by/批准: LV Guang Bin

Technical Justification for Use-As-Is/Repair: Attachment Non-attachment
 回用或返修的技术依据: 做PMT试验, 模拟工况, 无附件
 实际操作有办法, 以检验焊缝质量, 并对焊机设备进行检查, 确保焊机正常使用.
 Perform PMT testing by simulating shop work conditions. Check the welding machine to insure the welding machine working normally and welding quality.
 Reviewed/批准: Jiang Yangbo

Verification: Acceptable Unacceptable
 确认: 可接受 不可接受

Verified by QCI/质检确认: Sunwei 08.6.1 Reviewed by QCA/质检主任审核: Hu Gang 2008.6.1

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000113

Subject: NCR No. ZPMC-0132

Dated: 30-Oct-2008

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000063 **Rev:** 03

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has attached HSR, MT and VT reports for closure of this NCR.
Please find attached.

Submitted by:

Attachment(s): ABF-NPR-000063R03; HSR, MT and VT reports

Caltrans' comments:

Status: CLO

Date: 06-Nov-2008

The proposed resolution is acceptable. The attached heat straightening record shows details of deck panel DP -051 that was straightened. Also, the base metal along the edge of the deck panel that was straightened were accepted by VT and MT as shown in the attached reports. The Department concurs that Non-Conformance ZPMC-0132 is closed.

Submitted by: Wright, Doug

Date: 07-Nov-2008

Attachment(s):



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
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, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 30-May-2008

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

Dear: Mr. Charles Kanapicki
Attention: Mr. Dave Williams Consultant
Subject: NCR No. ZPMC-0132

Job Name: SAS Superstructure
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Material Location: OBG **Lift:**

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Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance to prevent future occurrences.

Transmitted by: Stanley Ku Sr. Bridge Engineer

Attachments: ZPMC-0132

cc: Rick Morrow, Gary Pursell, Brian Boal, Jason Tom, Ching Chao

File: 05.03.06

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Contract #: 04-0120F4

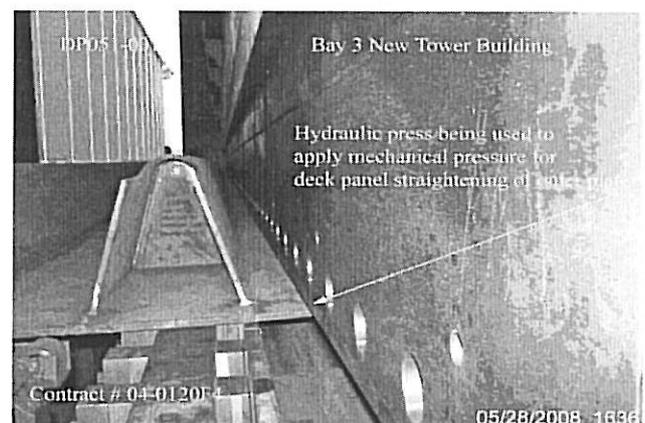
Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, PRC**Report No:** NCR-000138**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 28-May-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0132**Type of problem:**

Welding **Concrete** **Other**
Welding **Curing** **Procedural** **Bridge No:** 34-0006
Joint fit-up **Coating** **Other** **Component:** DP051-001
Procedural **Procedural** **Descriptor:** OBG Deck Panel

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**Applicable reference:**

AWS D1.5, Section 3.7.3: "Members distorted by welding shall be straightened by mechanical means or by carefully supervised application of a limited amount of localized heat as approved by the Engineer."

Who discovered the problem: QA Inspector Roscoe Dixon**Name of individual from Contractor notified:** ABFJV QC Inspector David Larue**Time and method of notification:** Approximately 1700 hours by phone on 5-28-08

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: Verbally at 1415 hours on 5-29-08

QC Inspector's Name: ZPMC QC Inspector Wang Lu approximately 1700 hours in person

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: Velasco, Abifhram

SMR

Reviewed By: Lowry, Patrick

SMR



火工校正记录

Heat Straightening Record (HSR1)

报告号 Record #

HSR1(B)-597

版本号 Revision #

0

日期 Date

2008.05.26

美国海湾大桥 San Francisco Oakland Bay Bridge

CALTRANS #04-0120F4

工程编号 JOB#: ZP06-787

装配 Assembly:	质检代表/Quality Control Representative
部装 Sub-Assembly:	Hu Gang 2008.5.26
梁段 Gird: DP051	质检经理/Quality Assurance Manager~Approval
塔段 Tower: N/A	Hu Gang
焊缝号 Weld No: 001	
焊缝地图号 Weld Map No: DP051-001	

情况描述 Description of Condition

Cause 原因 Welding distortion 焊接变形

Type of Defect 缺陷类型 Welding distortion 焊接变形

Inspection Method 检查方法 Visual 目检

处置方法 Disposition

缺陷去除方法(Defect Removal Method): Mechine Straightening

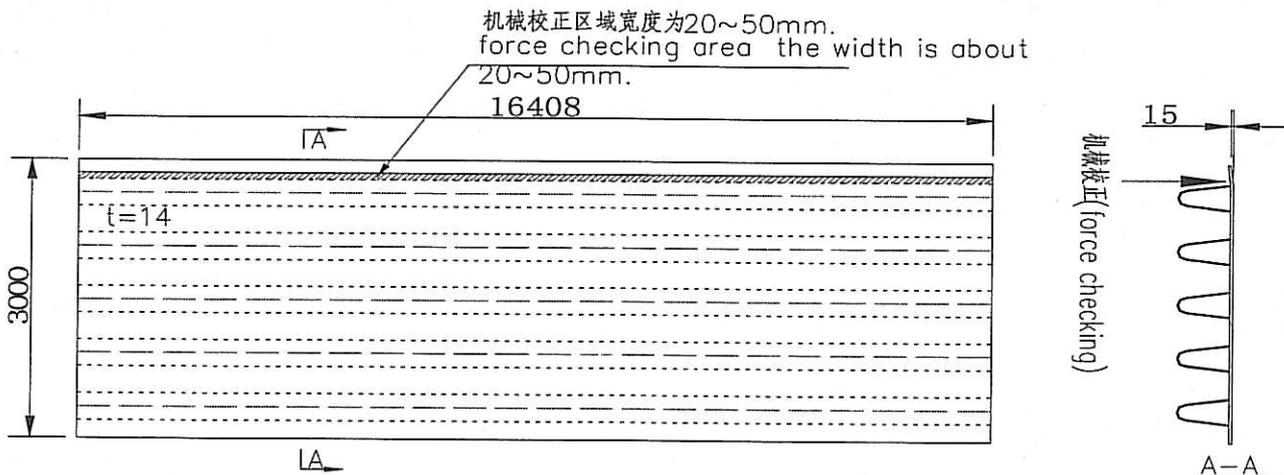
后续NDE(Post-Removal NDE): After finishing machine straightening, the weld of the heat area shall perform NDT according to the approved shop drawing

纠正措施(Corrective Action(s)): Control current, voltage and weld speed according to relevant WPS. If necessary anti-deformation or hold down device can be added.

实施次数(Number of application): 1~3

最高温度(Maximum temprature): NA

简图 Sketch



注: 最大变形量约15mm.

Note: the max deformation is about 15mm.

To be signed when Closing HSR~Verify compliance and all necessary reports are ready to attach

检验员 Inspector:	Sumed	签字 Signature:	孙介
CWI #		Closing Date:	08.5.30
II 级探伤 NDE Certification:	Level II		
质检经理 QC Manager	Hu Gang	审核日期 Review Date:	08.6.2

Note: All repair work shall be performed in accordance with applicable CALTRANS approved procedures, contract specifications and AWS D1.5 2002.

#R787-QCP-1101

Approved by Hu Gang.

2008.5.26



周数 30#
日期 2008.05.29

Visual Weld Inspection Report
焊缝目视检查报告

Caltrans Contract No. 加州合同编号		04-0120F4		Girder/ 梁:		OBG Diaphragm		NA																			
Project No.: 项目名称		San Francisco Oakland Bay Bridge 美国海湾大桥		Tower/ 塔:		NA		Zhan Shuang bar																			
Project No.: 项目编号:		ZP06-787		Quality Assurance Manager ~Approval 质量控制经理:		CWI: 检验员:		Summer 0705331																			
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		Over lap 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 Reject after repair 返修后接受或拒收	
DP051-001 Base material and weld 1# for mechanical straightening		N/A		N/A		N/A		√		√		√		√		√		√		Acc		NA		NA			
<input type="checkbox"/> After root weld																											
<input type="checkbox"/> After CWR or WRR No.:																											
<input type="checkbox"/> After cover pass																											
<input checked="" type="checkbox"/> After HSR No.:		HSR(08)-597																									
<input checked="" type="checkbox"/> Others																											

#R787-QCP-603
"√" is no defects. "X" is defects. "NA" is not applicable.

Ultrasonic Testing Report for U-rib PJP Welds

REPORT NO.: B787-UT-657

DATE: 08.09.15

PAGE 1 OF 6

PROJECT NO.: ZP06-787

CUSTOMER: CALTRANS

ITEM NO.: OBG U-RIB (DP51)

INSTRUCTION NO.: 04-0120F4

 REFERENCING CODE SECTION
N/A

 ACCEPTANCE STANDARD
ZPQC-UT-02

 PROCEDURE NO.
ZPQC-UT-02

EQUIPMENT

UT SCOPE

MAKER

PANAMETRICS

MODEL NO.

EPOCH-4B

SERIAL NO.

071565311 061488510

CALIBRATION BLOCK

AWS IIW BLOCK TYPE II

COUPLANT

C.M.C

MATERIAL/THICKNESS

A709M-345T2-X-S / 12 mm

WELDING PROCESS

GMAW/SAW

JOINT TYPE

T-JOINT

STRAIGHT BEAM TRANSDUCER
ANGLE BEAM TRANSDUCER

Model No.	FREQUENCY	SIZE	Model No.	ANGLE	FREQUENCY	SIZE
413560213	2.5MHz	∅25mm	W-223	70°	3.5MHz	.375/10mm

Panel No.	Weld No.	Accept	Reject	LOP exceeds 20% (mm)			
				Thickness of tested area	Depth of Penetration	Length	Y-Location
	DP051-001-001	*		11.9	9.01	18	45
	DP051-001-001	*		11.9	9.01	10	530
	DP051-001-001	*		12.5	9.2	10	8500
	DP051-001-002	*		12.2	9.38	20	155
	DP051-001-002		*	12.2	7.06	10	660
	DP051-001-002	*		12.5	9.42	10	7780
	DP051-001-002	*		12.5	8.98	150	8370
	DP051-001-003	*		12.7	9.36	10	265
	DP051-001-003	*		12.7	9	10	540
	DP051-001-003	*		12.3	9.19	150	7810
	DP051-001-003	*		12.2	9.23	50	8175
	DP051-001-003	*		12.2	9.28	8	8425
	DP051-001-003	*		12.2	9.28	8	8445
	DP051-001-003		*	12.3	7.46	10	15810
	DP051-001-004	*		12.6	8.9	15	530
	DP051-001-004	*		12.6	9.39	15	635
	DP051-001-004	*		12.4	9.32	35	15660

EXAMINED BY 主探

 Ma Jiarong 2009.09.15
LEVEL-II SIGN / DATE

REVIEWED BY 审核

 Zshuqin 08.09.15
LEVEL-II SIGN / DATE

质量经理 / QCM

 Hulirang
签字 SIGN / 日期 DATE 10-1

用户CUSTOMER

签字 SIGN / 日期 DATE

Ultrasonic Testing Report for U-rib PJP Welds

REPORT NO. : B787-UT-657

DATE: 08.09.15

PAGE 2 OF 6

Panel No.	Weld No.	Accept	Reject	LOP exceeds 20% (mm)			
				Thickness of tested area	Depth of Penetration	Length	Y-Location
	DP051-001-004	*		12.4	9.4	10	15765
	DP051-001-004	*		12.5	9.28	90	16200
	DP051-001-005		*	12.1	7.85	10	50
	DP051-001-005	*		12.1	8.95	10	125
	DP051-001-005	*		12.1	9.34	20	305
	DP051-001-005	*		12.1	9.15	10	470
	DP051-001-005	*		12.1	9.08	10	535
	DP051-001-005	*		12.1	8.89	10	580
	DP051-001-005	*		12.1	8.6	10	640
	DP051-001-005	*		12.1	8.99	10	670
	DP051-001-005	*		12.1	9.15	10	720
	DP051-001-005	*		12.1	9.1	15	7820
	DP051-001-005	*		12.1	9.29	10	7920
	DP051-001-005	*		12.1	8.85	100	8130
	DP051-001-005	*		12.1	9.1	35	8420
	DP051-001-005	*		12.3	9.22	10	16395
	DP051-001-006	*		12.2	8.86	30	30
	DP051-001-006	*		12.2	9.18	130	350
	DP051-001-006	*		12.2	9.02	10	430
	DP051-001-006	*		12.2	8.92	10	650
	DP051-001-006	*		12.2	8.86	30	670
	DP051-001-006	*		12.2	9.28	10	7785
	DP051-001-006	*		12.2	9.39	10	7835
	DP051-001-006	*		12.2	9.17	45	8395
	DP051-001-006	*		12.2	9.12	30	8510
	DP051-001-006	*		12.2	9.28	10	8600
	DP051-001-006	*		12.2	8.9	30	15600

EXAMINED BY 主探
Martina 2008.09.15
 LEVEL-II SIGN / DATE

REVIEWED BY 审核
Zshulgin
 LEVEL-II SIGN / DATE 08.09.15

质量经理 / QCM
Mulgany

用户CUSTOMER

签字 SIGN / 日期 DATE 10.1

签字 SIGN / 日期 DATE

Ultrasonic Testing Report for U-rib PJP Welds

REPORT NO.: B787-UT-657

DATE: 08.09.15

PAGE 3 OF 6

Panel No.	Weld No.	Accept	Reject	LOP exceeds 20% (mm)			
				Thickness of tested area	Depth of Penetration	Length	Y-Location
	DP051-001-006	*		12.2	8.6	50	15660
	DP051-001-006	*		12.2	9.28	20	15740
	DP051-001-007	*		12.2	9.25	10	55
	DP051-001-007		*	11.9	7.06	10	535
	DP051-001-007	*		12.3	8.96	10	660
	DP051-001-007	*		12.6	9.49	50	8410
	DP051-001-007	*		12.36	9.44	10	15077
	DP051-001-007	*		12	9.35	10	16240
	DP051-001-007	*		12	9.08	10	16290
	DP051-001-008	*		12.2	9.35	10	540
	DP051-001-008	*		12.5	9.33	3	14470
	DP051-001-009	*		12.4	9.38	25	40
	DP051-001-009	*		12.4	9.38	10	345
	DP051-001-009	*		12.4	8.55	10	530
	DP051-001-009	*		12.5	9.21	7	1280
	DP051-001-010	*		12.4	8.7	11	54
	DP051-001-010	*		12.6	9.23	55	55
	DP051-001-010	*		12.4	9.25	50	650

* All welds were 15% UT inspected and include 15% tack weld, DP051-001-002 DP051-001-003 DP051-001-004 DP051-001-005 DP051-001-006 DP051-001-009 total defect length was exceed the examined length 5%, so extend 100% inspecte, all welds But found four depth of penetration less the 70%, and repaired ACC.

* 所有焊缝经15%UT检测, 包括15%的点焊位置, DP051-001-002 DP051-001-003 DP051-001-004 DP051-001-005 DP051-001-006 DP051-001-009缺陷累积长度超过检测长度的5%, 需延伸100%检测, 所有焊缝共发现4处缺陷, 且已返修合格。

	DP051-001-002	*		12.4	9.29	5	1240
	DP051-001-002	*		12.6	9.43	35	2430
	DP051-001-002	*		12.7	9.44	8	5030
	DP051-001-002	*		12.7	9.19	7	5455
	DP051-001-002	*		12.7	8.23	35	6015
	DP051-001-002	*		12.7	8.94	43	6050

EXAMINED BY 主探
Maiyong 2008.09.15
 LEVEL-II SIGN / DATE

REVIEWED BY 审核
Zshun'in
 LEVEL-II SIGN / DATE 08.09.15

质量经理 / QCM
Hugang

用户 CUSTOMER

签字 SIGN / 日期 DATE 10-1

签字 SIGN / 日期 DATE

Ultrasonic Testing Report for U-rib PJP Welds

REPORT NO. : B787-UT-657

DATE: 08.09.15

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Panel No.	Weld No.	Accept	Reject	LOP exceeds 20% (mm)			
				Thickness of tested area	Depth of Penetration	Length	Y-Location
	DP051-001-002	*		12.63	9.25	6	7900
	DP051-001-002	*		12.9	9.45	22	11415
	DP051-001-002	*		12.8	9.29	5	15090
	DP051-001-003	*		12.93	8.88	30	3080
	DP051-001-003	*		12.91	9.44	30	3120
	DP051-001-003	*		12.51	9.43	10	10245
	DP051-001-004	*		12.53	9.21	5	10900
	DP051-001-004	*		12.65	9.3	50	11360
	DP051-001-004	*		12.72	9.21	5	11485
	DP051-001-004	*		12.74	9.39	5	13295
	DP051-001-004	*		12.6	9.43	5	14490
	DP051-001-004	*		12.6	9.43	5	15380
	DP051-001-006	*		12.4	9.4	7	1825
	DP051-001-006	*		12.4	9.47	5	7720
	DP051-001-006	*		12.8	9.34	85	12100
	DP051-001-006	*		12.5	9.27	15	12660
	DP051-001-006	*		12.5	9.27	90	12710
	DP051-001-006	*		12.5	9.33	30	14460
	DP051-001-006	*		12.5	9.2	60	14990
	DP051-001-009	*		12.5	9.21	4	1295
	DP051-001-009	*		12.5	9.39	20	2195
	DP051-001-009	*		12.5	9.39	10	2440
	DP051-001-009	*		12.5	9.45	30	3635
	DP051-001-009	*		12.6	9.34	4	6700
	DP051-001-009	*		12.7	9.3	10	11370
	DP051-001-005	*		12.31	9.2	5	1250
	DP051-001-005	*		12.16	9.23	5	1260

EXAMINED BY 主探
Majid 2008 09 15
 LEVEL-II SIGN / DATE

质量经理 / QCM
Huibrang
 签字 SIGN / 日期 DATE 10-

REVIEWED BY 审核
Zhuo
 LEVEL-II SIGN / DATE 08.09.15

用户 CUSTOMER
 签字 SIGN / 日期 DATE

Ultrasonic Testing Report for U-rib PJP Welds

REPORT NO.: B787-UT-657

DATE: 08.09.15

PAGE 5 OF 6

Panel No.	Weld No.	Accept	Reject	LOP exceeds 20% (mm)			
				Thickness of tested area	Depth of Penetration	Length	Y-Location
	DP051-001-005	*		12.2	9.25	10	1840
	DP051-001-005	*		12.2	9.09	10	1875
	DP051-001-005	*		12.2	9.22	10	2100
	DP051-001-005	*		12.3	8.88	70	2410
	DP051-001-005	*		12.1	9.45	3	2970
	DP051-001-005	*		12.1	9.24	20	2980
	DP051-001-005	*		12.1	9.27	11	3000
	DP051-001-005	*		12.1	8.9	40	3030
	DP051-001-005	*		12.16	9.27	10	3060
	DP051-001-005	*		12.1	9.24	7	3110
	DP051-001-005	*		12.1	9.33	4	3635
	DP051-001-005	*		12.1	9.42	7	3600
	DP051-001-005	*		12.1	8.99	7	3675
	DP051-001-005	*		12.2	9.37	5	3910
	DP051-001-005	*		12.2	9.37	5	4190
	DP051-001-005	*		12.2	9.37	7	6840
	DP051-001-005	*		12.2	9.43	8	6860
	DP051-001-005	*		12.3	9.47	10	7050
	DP051-001-005	*		12.3	8.7	80	7155
	DP051-001-005	*		12.4	9.35	20	7300
	DP051-001-005	*		12.4	8.8	20	7810
	DP051-001-005	*		12.16	9.14	10	8455
	DP051-001-005	*		12.3	8.58	140	8745
	DP051-001-005	*		12.3	9.25	30	8930
	DP051-001-005	*		12.3	9.44	10	9060
	DP051-001-005	*		12.3	9.13	40	9095
	DP051-001-005	*		12.3	9.28	5	9110

EXAMINED BY 主探

Ma (3/10/15) 2008.09.15

LEVEL-II SIGN / DATE

REVIEWED BY 审核

Zshulin 08.09.15

LEVEL-II SIGN / DATE

质量经理 / QCM

Hukang

用户CUSTOMER

签字 SIGN / 日期 DATE 10/

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-000114**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 07-Nov-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0132**Type of problem:**

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

Date the Non-Conformance Report was written: 28-May-2008**Description of Non-Conformance:**

The Contractor performed straightening of members using means that have not been approved by the Engineer.

The Contractor placed the deck panel DP051-001 into a hydraulic press plate bender and applied pressure to straighten the outer edge of the panel. This straightening of the deck panel plate was not approved by the Engineer as required by AWS D1.5, Section 3.7.3 which states, "Members distorted by welding shall be straightened by mechanical means or by carefully supervised application of a limited amount of localized heat as approved by the Engineer."

Contractor's proposal to correct the problem:

Provided technical justification that the member after straightening conforms to Contract requirements, and provide the member straightening and inspection records.

Corrective action taken:

Although the corrective action does not address the damage that may have been caused to the member or the systemic issue in which the Contractor continues to fail to understand proper straightening techniques, 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:** 07-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**