

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, P.R. China**Report No:** NCR-000698**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 16-Mar-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0665**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: OBG Suspender Bracket
Procedural	Procedural	Description: Missed MT indication by QC	

Reference Description: 16 Missed MT Transverse Indications by QC on OBG Suspender Bracket
 SB010-042-026

Description of Non-Conformance:

During random Quality Assurance (QA) Magnetic Particle Testing (MT) review of the Suspender Bracket welds, this QA Inspector discovered the following issue:

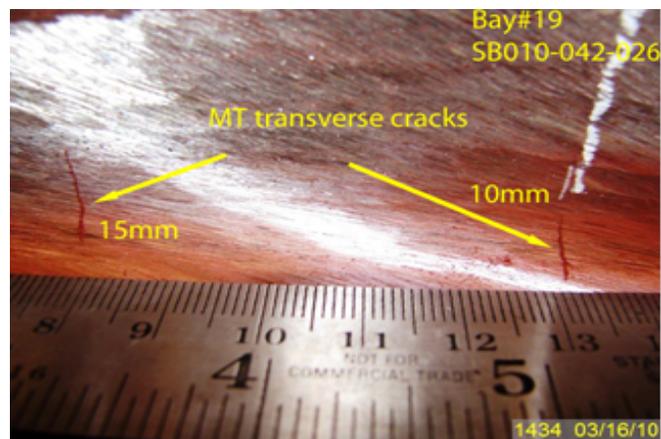
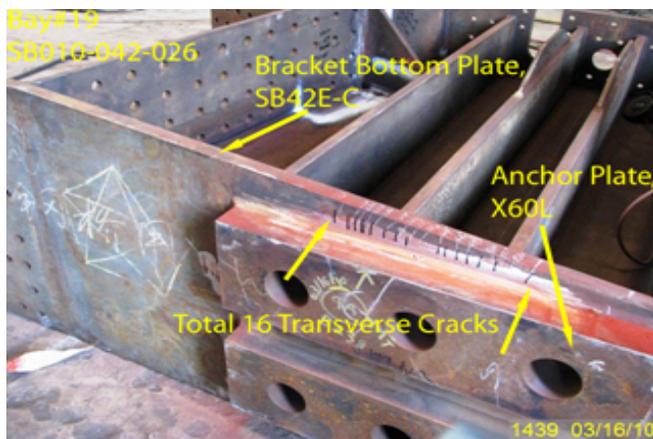
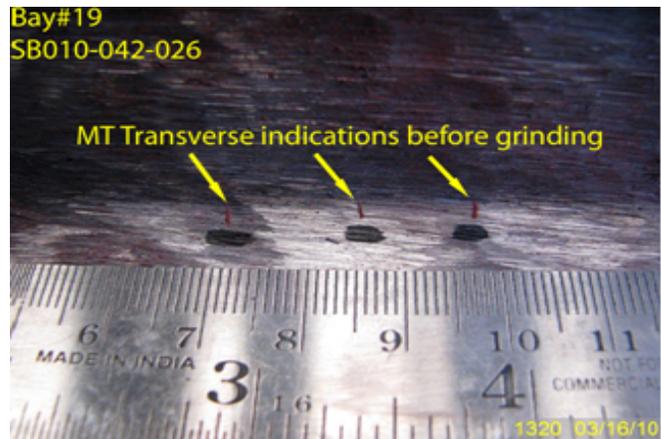
- A Total of sixteen (16) MT transverse indications measuring approximately 10mm to 15mm in length after grinding.
- The weld is a seal weld joining the bracket bottom Plate (SB42E-C) to the anchor plate (X60L) and is identified as SB010-042-026.
- The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel.
- The component is located in OBG fabrication Bay 19. The Notice of Witness Inspection Number (NWIT) is 005352.

It should also be noted that a total of fifteen (15) transverse cracks, on the same weld, were found and repaired by ZPMC personnel utilizing the SMAW process on 03-15-2010 without the prior approval of the engineer and critical weld repair (CWR) report. (Reference Incident Report# 1223 written 03/15/10) Subsequently, ZPMC submitted the B-CWR 1336 on 03-17-2010 which was for the already repaired weld joint with the 15 transverse cracks.

- This B-CWR 1336 was not submitted prior to the weld repair of 15 transverse cracks on 03/15/10.
- On 03-15-2010, the ZPMC QC and welders performed the 15 transverse cracks weld repair without having an approved CWR.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



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.”

–“In addition to the provisions in AWS D1.5, Section 3.7.4 and Section 12.17, regardless of NDT method, and all repairs of cracks require prior approval of the Engineer.”

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: Hiranch Patel

Name of individual from Contractor notified: Peng Wen Jun

Time and method of notification: 1500 hours, 03-16-10, Verbal

Name of Caltrans Engineer notified: Bill Howe, Stanley Ku

Time and method of notification: 0830 hours, 03-17-10, Verbal

QC Inspector's Name: Zhon Cheng

Was QC Inspector aware of the problem:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By:	Tsang, Eric	SMR
Reviewed By:	Wahbeh, Mazen	SMR

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000655

Subject: NCR No. ZPMC-0665

Dated: 12-May-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000653 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has repaired the indications found in accordance with the critical weld repair report and is providing the NDT to show that the weld is now acceptable.

ZPMC has repaired the indications found in accordance with the critical weld repair report and is providing the NDT to show that the weld is now acceptable.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000653R00;

Caltrans' comments:

Status: CLO

Date: 13-May-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0665 is closed.

Submitted by: Eagen, Sean

Date: 13-May-2010

Attachment(s):



No. B-751

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-5-11

REGARDING: NCR-000698(ZPMC-0665)

These indications have been repaired according to B-CWR1336. ZPMC is providing the NDT record and is requesting closure of this NCR.

ATTACHMENT:

NCR-000698(ZPMC-0665)

B787-MT-19876 R2

A handwritten signature in black ink, appearing to be "L. W.", is written over the typed name.

5/11/10



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 Date: 21-Mar-2010
 375 BURMA ROAD
 OAKLAND CA 95607 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: 05.03.06-000655
 Subject: NCR No. ZPMC-0665

Reference Description: 16 Missed MT Transverse Indications by QC on OBG Suspender Bracket SB010-042-026

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: Other

Lift:

Remarks:

During random Quality Assurance (QA) Magnetic Particle Testing (MT) review of the Suspender Bracket welds, this QA Inspector discovered the following issue:

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- The weld is a seal weld joining the bracket bottom Plate (SB42E-C) to the anchor plate (X60L) and is identified as SB010-042-026.
- The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel.
- The component is located in OBG fabrication Bay 19. The Notice of Witness Inspection Number (NWIT) is 005352.

It should also be noted that a total of fifteen (15) transverse cracks, on the same weld, were found and repaired by ZPMC personnel utilizing the SMAW process on 03-15-2010 without the prior approval of the engineer and critical weld repair (CWR) report. (Reference Incident Report# 1223 written 03/15/10) Subsequently, ZPMC submitted the B-CWR 1336 on 03-17-2010 which was for the already repaired weld joint with the 15 transverse cracks.

- This B-CWR 1336 was not submitted prior to the weld repair of 15 transverse cracks on 03/15/10.
- On 03-15-2010, the ZPMC QC and welders performed the 15 transverse cracks weld repair without having an approved CWR.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 7 days.

Transmitted by: Bill Howe Sr. Transportation Engineer

Attachments: ZPMC-0665

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao, Bill Casey
 File: 05.03.06

02.02:15.04
 05.03.06-000655,NCT

Received
 NCT-000655 22 Mar 10 Page 1 of 1

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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, P.R. China

Report No: NCR-000698

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 16-Mar-2010

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

NCR #: ZPMC-0665

Type of problem:

Welding Concrete Other

Welding Curing Procedural Bridge No: 34-0006

Joint fit-up Coating Other Component: OBG Suspender Bracket

Procedural Procedural Description: Missed MT indication by QC

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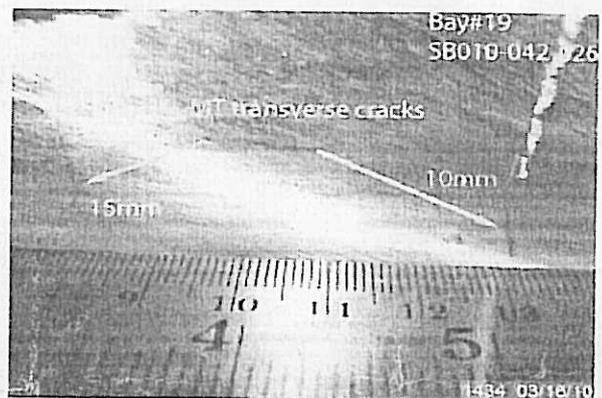
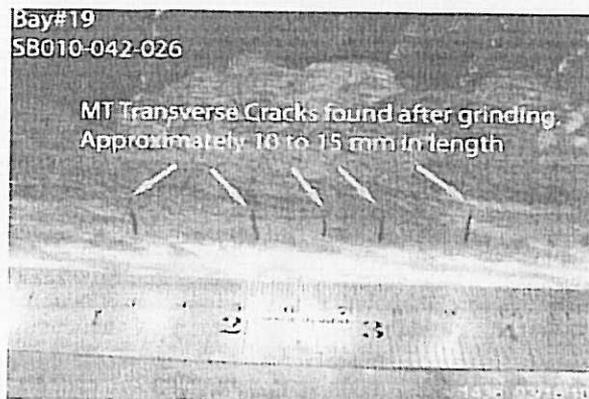
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QUALITY ASSURANCE – NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



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QC Inspector's Name: Zhon Cheng

Was QC Inspector aware of the problem:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Yes No

Contractor's proposal to correct the problem:

N/A

Comments:

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Inspected By:	Tsang, Eric	SMR
Reviewed By:	Wahbeh, Mazen	SMR



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-19876R2 DATE日期 2010.03.31 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: SB42E SUPPORT BEAM		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 , 2010
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 35/25/22/75/20mm
WELDING PROCESS 焊接方法	SMAW	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			
SB010-042-026	1R1			ACC.	.	100%MT
	2R1			ACC.	.	100%MT
	3R1			ACC.	.	100%MT
	4R1			ACC.	.	100%MT
	5R1			ACC.	.	100%MT
	6R1			ACC.	.	100%MT
	7R1			ACC.	.	100%MT
	8R1			ACC.	.	100%MT
	9R1			ACC.	.	100%MT
	10R1			ACC.	.	100%MT
	11R1			ACC.	.	100%MT
	12R1			ACC.	.	100%MT
	13R1			ACC.	.	100%MT
	14R1			ACC.	.	100%MT
	15R1			ACC.	.	100%MT
	16R1			ACC.	.	100%MT

AFTER B-CWR1336 REV.1

EXAMINED BY 主探 <i>Chang Panjie</i> 20/0.03.31	REVIEWED BY 审核 <i>SU V/zh</i> 20/0.03.31
LEVEL-II SIGN 签名 / DATE日期	LEVEL-II SIGN / DATE日期
质量经理 / QCM	用户CUSTOMER
签字 SIGN / 日期 DATE	签字 SIGN / 日期 DATE

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCS-000672**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 13-May-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0665**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: 16-Mar-2010**Description of Non-Conformance:**

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-This B-CWR 1336 was not submitted prior to the weld repair of 15 transverse cracks on 03/15/10.

-On 03-15-2010, the ZPMC QC and welders performed the 15 transverse cracks weld repair without having an approved CWR.

Contractor's proposal to correct the problem:

Repair said indication and perform NDT required to verify weld quality.

Corrective action taken:

Contractor submitted post repair NDT documentation verifying weld has been repaired and is in conformance with Contract weld quality requirements.

