

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-000947**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 15-Dec-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0906**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Traveler Rail 20TR2-048
Procedural	Procedural	Description: 10 Missed MT indication by QC	

Reference Description: QA found 10 missed MT indications after ZPMC had tested and accepted the weld (battered base metal) on the Traveler Rail

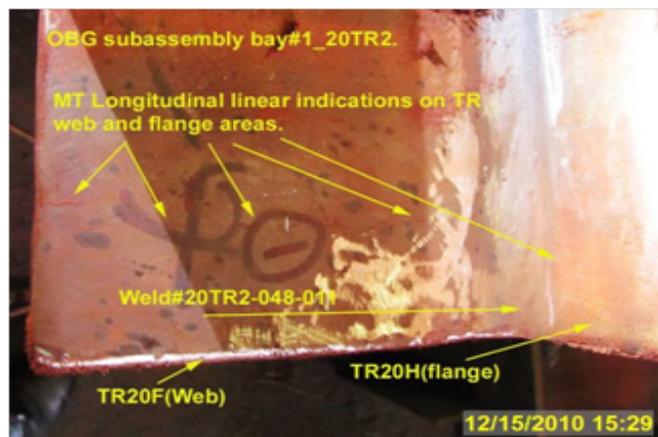
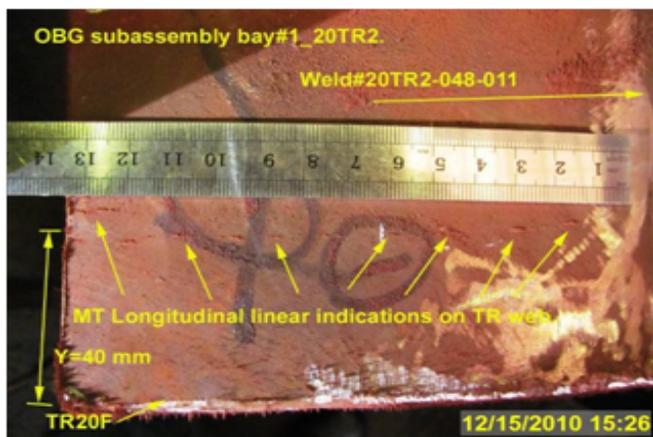
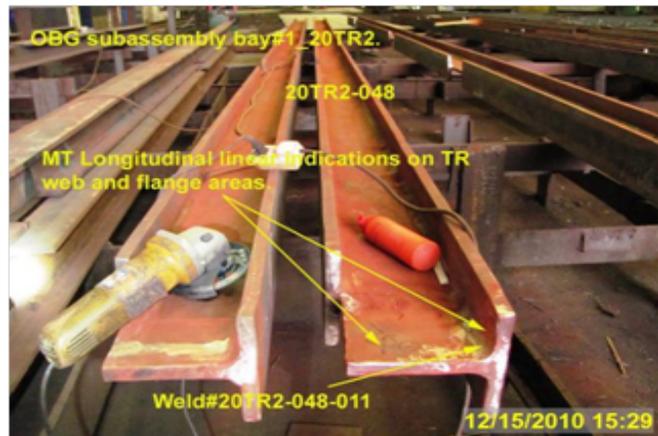
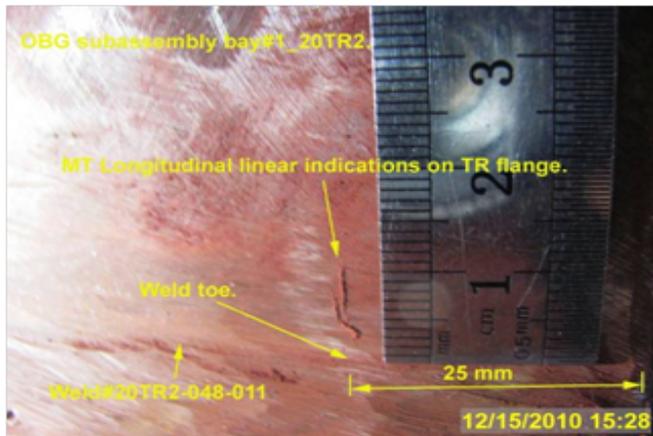
Description of Non-Conformance:

During Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on Orthotropic Box Girder (OBG) Traveler rail (TR) 20TR2-048, this QA Inspector discovered the following issue:

- 10 linear indications measuring approximately 4 ~10 mm in length were found on this traveler rail.
- The indications are located at the base metal of the web and flange, and the battered areas at the end of the traveler rail.
- The nearest weld is identified as: 20TR2-048-011.
- The web and flange are identified as TR20F and TR20H respectively.
- The "Y" locations of the indications are approximately 40 mm and 25 mm for web and flange, respectively.
- The "Y" locations are measured from the end of the traveler rail as shown in the photos below.
- The thickness of the TR web and flange is 20 mm.
- Traveler rail 20TR2-048 is currently located in the OBG Sub assembly Bay #1.
- The Notice of Witness Inspection Number (NWIT) is 07789. The indications are located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC QC personnel are required to perform 100% MT inspection of these welds and battered locations.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

AWS D1.5 2002 figure 6.8 – “Specifies for weld size of 20mm the maximum discontinuity length is approximately 6mm and a minimum clearance between discontinuities of approximately 57mm.

AWS D1.5 2002 section 6.26.1.2 - Thorough fusion shall exist between adjacent layers of weld metal and between weld metal and base metal.

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.”

Who discovered the problem: Surendra Prabhu

Name of individual from Contractor notified: Wang Wen Bin / Chen Ji Wei

Time and method of notification: 1600 hours, 12-15-10 Verbal

Name of Caltrans Engineer notified: Ching Chao

Time and method of notification: 1530 hours, 12-16-10 Verbal

QC Inspector's Name: Xiang Feng Feng

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:

Comments:

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



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: 16-Dec-2010

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

Dear: Mr. Charles Kanapicki
Job Name: SAS Superstructure

Attention: Mr. Thomas Nilsson Project/Fabrication Manager
Document No: 05.03.06-000903

Subject: NCR No. ZPMC-0906

Reference Description: QA found 10 missed MT indications after ZPMC had tested and accepted the weld (battered base metal) on the Traveler Rail

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 Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on Orthotropic Box Girder (OBG) Traveler rail (TR) 20TR2-048, this QA Inspector discovered the following issue:
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 - The Notice of Witness Inspection Number (NWIT) is 07789. The indications are located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC QC personnel are required to perform 100% MT inspection of these welds and battered locations.

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: Ching Chao

Attachments: ZPMC-0906

cc: Peter Siegenthaler, Stanley Ku, Contract Files, Ching Chao, Laraine Woo, Bill Casey

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Dated: 30-Dec-2010

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

Attention: Siegenthaler, Peter
Resident Engineer

Job Name: SAS Superstructure

Document No.: ABF-NPR-000894 **Rev:** 00

Ref: 05.03.06-000903

Subject: NCR No. ZPMC-0906

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has repaired the indication noted in the NCR and is providing NDT documentation after the repair to show the indication has been removed.

ZPMC has repaired the indication noted in the NCR and is providing NDT documentation after the repair to show the indication has been removed. ABFJV has noted which inspector was responsible for this missed indication and is monitoring his performance as well as all inspector performance, if he continues to miss indications disciplinary action will be undertaken. Based on these actions, ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000894R00;

Caltrans' comments:

Status: CLO

Date: 31-Dec-2010

The proposed resolution is acceptable. This NCR is considered closed.

Submitted by: Woo, Laraine

Date: 31-Dec-2010

Attachment(s):



PROJECT: S.F.O.B.B.

DATE:2010-12-30

TO: ROSEMARY/ABF JV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: OBG NCR

SUBMITTED FOR YOUR APPROVAL AND SUBMITTAL TO CALTRANS

ENCLOSED WITH THIS TRANSMITTAL IS ONE COPY OF

- (01) LR: No. B-953
- (02) NCR-000947(ZPMC-0906)
- (03) B787-MT-34702R1

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT

PLAN HOLDER:

Rosemary

13:40

DATE: RECEIVED 30 DEC 2010

COMPANY  / **FLUOR.**

PHONE NO.

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



No. B-953

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-12-30

REGARDING: NCR-000947(ZPMC-0906)

ZPMC acknowledged this problem and has issued an internal NCR. This indication has been removed, repaired and re-tested to be acceptable. ZPMC is providing the NDT record and is requesting closure of this NCR.

ATTACHMENT:

NCR-000947(ZPMC-0906)

B787-MT-34702 R1

Zhangwei
12/30/10

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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, P.R. China

Report No: NCR-000947

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 15-Dec-2010

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

NCR #: ZPMC-0906

Type of problem:

Welding Concrete Other

Welding Curing Procedural Bridge No: 34-0006

Joint fit-up Coating Other Component: Traveler Rail 20TR2-048

Procedural Procedural Description: 10 Missed MT indication by QC

Reference Description: QA found 10 missed MT indications after ZPMC had tested and accepted the weld (battered base metal) on the Traveler Rail

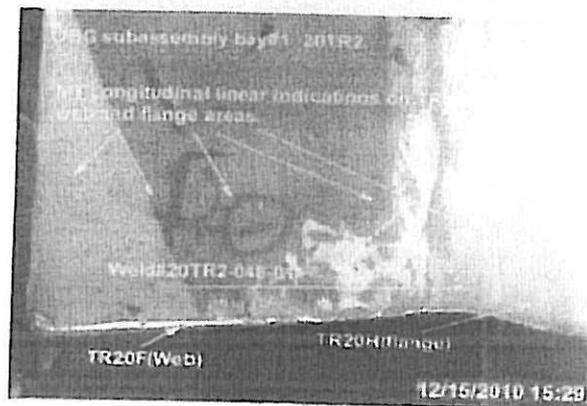
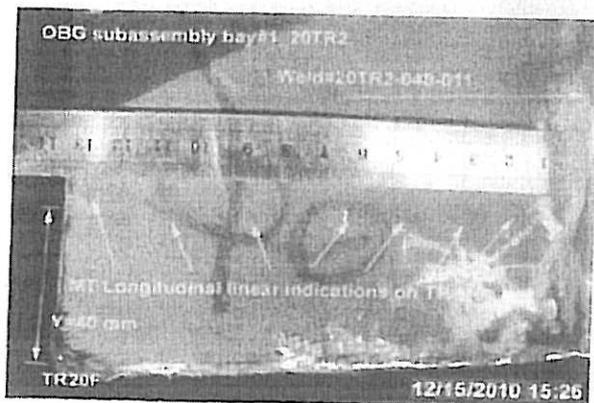
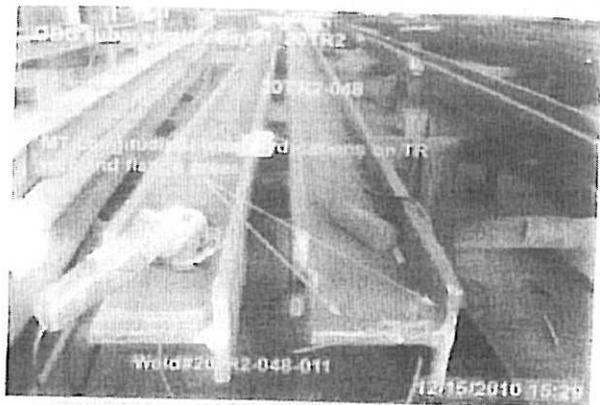
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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



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QC Inspector's Name: Xiang Feng Feng

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:

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-34702R1		DATE 日期 2010.12.28		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: 20TR2-048 limb plate&web plate			CALTRANS CONTRACT NO.: 加州工程编号 04-0050F4				
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 KOREA		MODEL NO. 样式编号 MP-A2L		SERIAL NO. 连续编号 MP1644	
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 20/50mm	
WELDING PROCESS 焊接方法		SMAW		TYPE OF JOINT 焊缝类型		NA	
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				
TR20F	1R1			ACC.		100%MT	
	2R1			ACC.		100%MT	
AFTER B-CWR2552rev0							
BLANK							
EXAMINED BY 主探 Sun Gongchang <i>Sun Gongchang</i> LEVEL - II SIGN 签名 / DATE 日期 2010.12.28 质量经理 / QCM <i>[Signature]</i>				REVIEWED BY 审核 <i>huang jin</i> LEVEL-II SIGN / DATE 日期 2010.12.28 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-000873**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 31-Dec-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0906**Type of problem:**

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

Date the Non-Conformance Report was written: 15-Dec-2010**Description of Non-Conformance:**

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Contractor's proposal to correct the problem:

Contractor will repair the welds, and perform NDT to prove the welds are acceptable. Contractor will identify and issue an internal NCR to the inspector who missed the indications. Contractor will monitor his performance. Disciplinary action will be taken if the inspector misses indications continuously.

Corrective action taken:

Contractor repaired the weld and performed NDT subsequently. NDT report shows that the welds are acceptable. Contractor identified and issued an internal NCR to the inspector who missed the indications. Contractor is monitoring the inspector's performance.

Did corrective action require Engineer's approval?

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Yes No

If so, name of Engineer providing approval:

Date:

Is Engineer's approval attached? Yes No

Comments:

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Inspected By: Ng,Michael

Quality Assurance Inspector

Reviewed By: Wahbeh,Mazen

QA Reviewer