

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-000809**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 20-Jul-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0771**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Segment 11BE Deck Panel Diaphragm
Procedural	Procedural	Description: Missed MT Transverse Crack by QC	

Reference Description: QA found a MT crack after the contractor's had tested and accepted a weld joint on Segment 11BE U-Rib to Deck Diaphragm

Description of Non-Conformance:

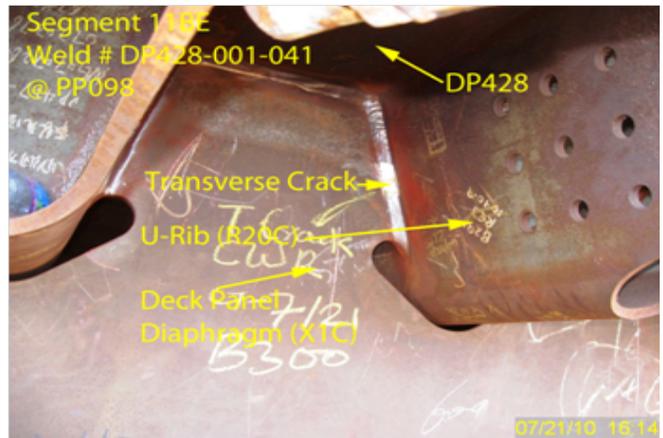
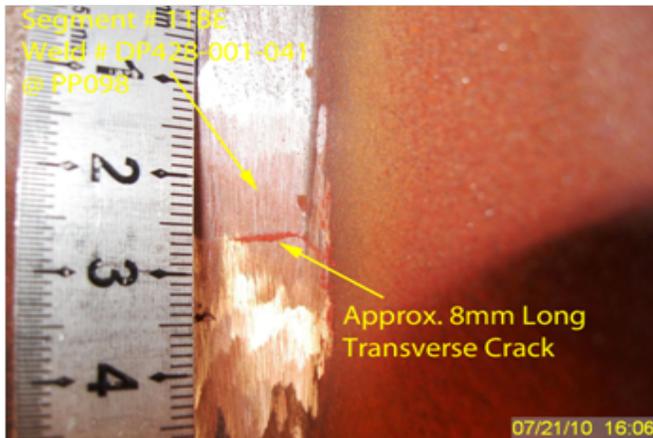
During random Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on segment 11BE, this Caltrans QA Inspector discovered one Transverse Crack on the following weld:

- One (1) Transverse Crack measuring approximately 8 mm in length.
- The weld is identified as DP428-001-041 @ panel point (PP) 98.
- Weld is a Fillet Weld joining the Deck Panel Diaphragm to U-Rib.
- The weld is designated as Non-Seismic Performance Critical Member (Non-SPCM).
- Deck Panel Diaphragm identified as X1C (Non-SPCM).
- Closed U-Rib identified as R20C (Non-SPCM).
- The indication is clearly marked on the material near the weld.
- OBG segment 11BE is located in outside yard, west of OBG Bay 13.

The Notice of Witness Inspection (NWIT) No. is 006235. The indication is located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% MT inspection of this weld.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



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: Vikram Singh

Name of individual from Contractor notified: Wang Heng

Time and method of notification: 1630 hours, 07/21/10, Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 1300 hours, 07/22/10, Verbal

QC Inspector's Name: Wang Xiang Pin

Was QC Inspector aware of the problem: 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 Jim Devey, (86) 150-0002-6784, who represents the Office of Structural Materials for your project.

Inspected By: Tsang, Eric

SMR

Reviewed By: Devey, Jim

SMR



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: 23-Jul-2010

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

Dear: Mr. Charles Kanapicki

Attention: Mr. Thomas Nilsson Project/Fabrication Manager

Job Name: SAS Superstructure

Subject: NCR No. ZPMC-0771

Document No: 05.03.06-000766

Reference Description: QA found a MT crack after the contractor's had tested and accepted a weld joint on Segment 11BE U-Rib to Deck Diaphragm

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:** 11

Remarks:

- During random Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on segment 11BE, this Caltrans QA Inspector discovered one Transverse Crack on the following weld:
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 - Deck Panel Diaphragm identified as X1C (Non-SPCM).
 - Closed U-Rib identified as R20C (Non-SPCM).
 - The indication is clearly marked on the material near the weld.
 - OBG segment 11BE is located in outside yard, west of OBG Bay 13.

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: Laraine Woo Transportation Engineer

Attachments: ZPMC-0771

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

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000766

Subject: NCR No. ZPMC-0771

Dated: 07-Sep-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000765 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has repaired this crack and is providing the NDT performed after to show that the repair was successful.

ZPMC has repaired this crack and is providing the NDT performed after to show that the repair was successful. In order to decrease missed indications, ZPMC QA will conduct refresher training with its inspectors and continue to monitor inspector performance. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000765R00;

Caltrans' comments:

Status: CLO

Date: 14-Sep-2010

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

Submitted by: Woo, Laraine

Attachment(s):

Date: 14-Sep-2010



No. B-869

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-09-06

REGARDING: NCR-000809(ZPMC-0771)

ZPMC is providing the NDT record to show this indication has been repaired and tested to be acceptable. ZPMC QA personnel have talked with the head of NDT department to address this issue. An internal refresh training will be taken, in order to stop the increasing of missed MT indication. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000809(ZPMC-0771)

B787-MT-27042 R1

Jm w
9/6/10

CW R 1730



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: 23-Jul-2010

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

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Attention: Mr. Thomas Nilsson Project/Fabrication Manager
Subject: NCR No. ZPMC-0771

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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-000809

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 20-Jul-2010

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

NCR #: ZPMC-0771

Type of problem:Welding Concrete Other Welding Curing Procedural Bridge No: 34-0006Joint fit-up Coating Other Component: Segment 11BE Deck Panel DiaphragmProcedural Procedural Description: Missed MT Transverse Crack by QC

Reference Description: QA found a MT crack after the contractor's had tested and accepted a weld joint on
Segment 11BE U-Rib to Deck Diaphragm

Description of Non-Conformance:

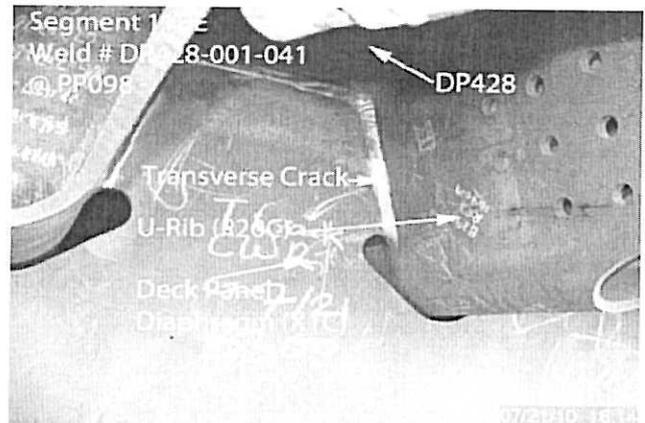
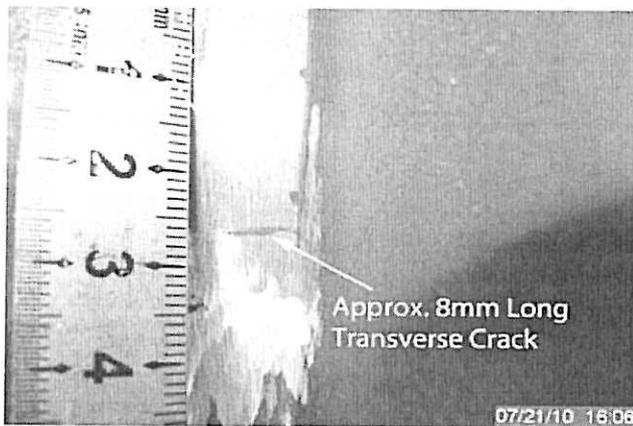
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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



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QC Inspector's Name: Wang Xiang Pin

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

Comments:

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Inspected By: Tsang, Eric

SMR

Reviewed By: Devey, Jim

SMR



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-27042R1 DATE日期 2010.09.04 PAGE OF页码 1/1 Revision No: 0

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

DRAWING NO. DP428 CALTRANS CONTRACT NO.: 04-0120F4
 图号: DECK PLATE 加州工程编号:

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. 28ST, 2010

EQUIPMENT 设备 MANUFACTURER 制造商 MODEL NO. 样式编号 SERIAL NO. 连续编号
 MT YOKE KOREA MP-A2L MP1644

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-X
 检测材料 CASTING 铸件 母材,厚度 12/14mm
 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			
DP428-001-041	1R1			ACC.		100%MT

AFTER B-CWR1860 REV0

BLANK

EXAMINED BY 主探 Sun gong chang <i>SUN Gongchang</i> 20/0.09.04 LEVEL - II SIGN 签名 / DATE日期 质量经理 / QCM	REVIEWED BY 审核 <i>SUN Wei</i> 20/0.09.04 LEVEL-II SIGN / DATE日期 用户 CUSTOMER
签字 SIGN / 日期 DATE (FORM# ZPQC-MT01)	签字 SIGN / 日期 DATE

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(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, P.R. China**Report No:** NCS-000762**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 14-Sep-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0771**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: 20-Jul-2010**Description of Non-Conformance:**

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Contractor's proposal to correct the problem:

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

Corrective action taken:

Contractor supplied post repair NDT documentation verifying weld conforms with Contract weld quality requirements. An internal NCR was also issued by ZPMC in regards to this issue, and refresher training was provided to NDT technicians.

Did corrective action require Engineer's approval? Yes No**If so, name of Engineer providing approval:****Date:****Is Engineer's approval attached?**

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Yes No

Comments:

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Inspected By:	Simonis,Jim	Quality Assurance Inspector
Reviewed By:	Wahbeh,Mazen	QA Reviewer
