

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, China**Report No:** NCR-000782**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 01-Jul-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0744**Type of problem:**

Welding	Concrete	Other
Welding	Curing	Procedural
Joint fit-up	Coating	Other
Procedural	Procedural	Description:

Bridge No: 34-0006**Component:** SEG11AE, X151C to EP170A at PP96**Reference Description:** Missed UT Indication**Description of Non-Conformance:**

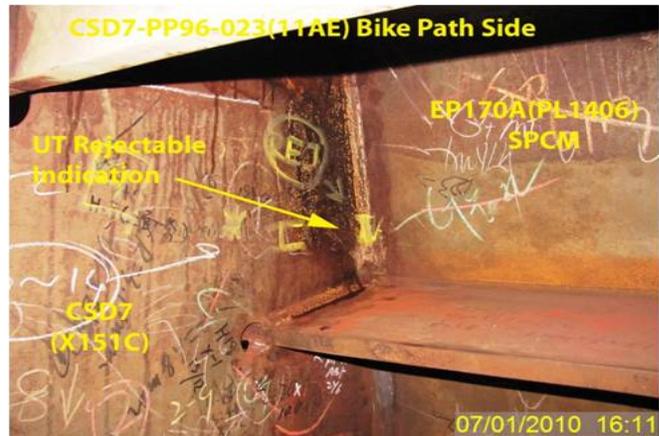
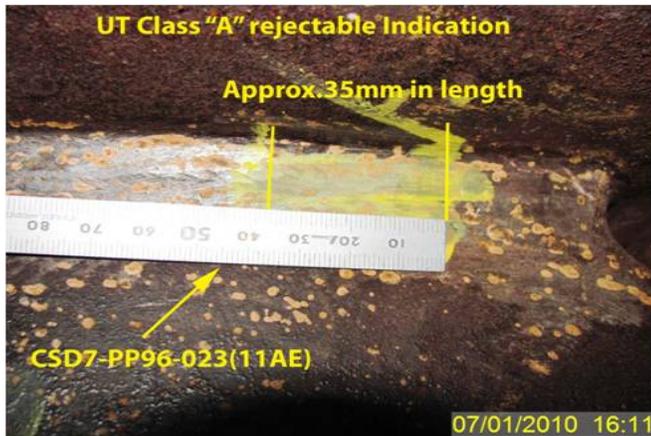
During the Quality Assurance Ultrasonic Testing (UT) review of welds located on Orthotropic Box Girder (OBG) segment 11AE, QA discovered the following issues:

- One (1) longitudinal linear indication measuring approximately 35mm in length.
- The indication dbS rating is a +4.
- The Y distance for this indication is 35 mm from bottom cope hole.
- Material thickness is 20mm.
- The depth of the indication is approximately 12mm.
- The weld is identified as CSD7-PP96-023 at Bike Path side, panel point (PP) 96.
- The weld was a Fillet Weld according to approved shop drawing but due to excessive root gap, ZPMC has changed the joint to a Complete Joint Penetration (CJP) "T" joint.
- This joint connects the Corner Assembly Diaphragm (X151C) to Edge Plate EP170A (PL1406A).
- The weld is designated as Seismic Performance Critical Material (SPCM).
- The indication is clearly marked on or near the weld.
- Segment 11AE is located at outside near trial Assembly Area.

The Notice of Witness Inspection (NWIT) No. is 006079. The indication is located in 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 hundred (100%) percent UT inspection of this weld.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



Applicable reference:

AWS D1.5-02 Section 6; Table 6.3 specifies a class “A” indication as having a rating of 10dbs and under for material thicknesses 8mm through 20mm.

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: Subhasis Bera

Name of individual from Contractor notified: Wang Kheng

Time and method of notification: 1630 hours, 07-01-10, Verbal

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: 1730 hours, 07-01-10, Verbal

QC Inspector's Name: Wang Wai Ming

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

NA

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,(818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Devey,Jim	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:	05-Jul-2010
Dear:	Mr. Charles Kanapicki	Contract No:	04-0120F4 04-SF-80-13.2 / 13.9
Attention:	Mr. Thomas Nilsson Project/Fabrication Manager	Job Name:	SAS Superstructure
Subject:	NCR No. ZPMC-0744	Document No:	05.03.06-000743
Reference Description:	Missed UT Indication		

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 the Quality Assurance Ultrasonic Testing (UT) review of welds located on Orthotropic Box Girder (OBG) segment 11AE, QA discovered the following issues:

- One (1) longitudinal linear indication measuring approximately 35mm in length.
- The indication dbS rating is a +4.
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- The depth of the indication is approximately 12mm.
- The weld is identified as CSD7-PP96-023 at Bike Path side, panel point (PP) 96.
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- This joint connects the Corner Assembly Diaphragm (X151C) to Edge Plate EP170A (PL1406A).
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- The indication is clearly marked on or near the weld.
- Segment 11AE is located at outside near trial Assembly Area.

The Notice of Witness Inspection (NWIT) No. is 006079. The indication is located in 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 hundred (100%) percent UT inspection of this weld.

See attached NCR No. ZPMC-0744 for details.

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.

NCT

(Continued Page 2 of 2)

Transmitted by: Ching Chao

Attachments: ZPMC-0744

cc: Gary Pursell, Peter Siegenthaler, Stanley Ku, Contract Files, Ching Chao, Bill Casey

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Dated: 23-Aug-2010

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

Attention: Pursell, Gary
Resident Engineer

Job Name: SAS Superstructure

Document No.: ABF-NPR-000745 Rev: 00

Ref: 05.03.06-000743

Subject: NCR No. ZPMC-0744

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has repaired the missed indication and is providing NDT records to show the weld is acceptable.

ZPMC has repaired the missed indication and is providing NDT records to show the weld is acceptable. ZPMC QA has discussed this missed indication with ZPMC's NDT department head to express the unacceptable trend. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000745R00;

Caltrans' comments:

Status: CLO

Date: 31-Aug-2010

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

Submitted by: Woo, Laraine

Date: 31-Aug-2010

Attachment(s):



No. B-846

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-08-23

REGARDING: NCR-000782(ZPMC-0744)

ZPMC has finished the repairs and is providing the NDT record shows the missed indication is acceptable now. ZPMC QA personnel have talked with the leader of NDT department to address the unsatisfied increasing of issues on the missed indications. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000782(ZPMC-0744)

B787-UT-13689 R1

A handwritten signature in black ink, appearing to be 'Jm' followed by a flourish.

8/23/10



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: 05-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-0744
Document No: 05.03.06-000743

Reference Description: Missed UT Indication

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

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Attachments: ZPMC-0744

cc: Gary Pursell, Peter Siegenthaler, Stanley Ku, Contract Files, Ching Chao, Bill Casey

File: 05.03.06

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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, China

Report No: NCR-000782

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 01-Jul-2010

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

NCR #: ZPMC-0744

Type of problem:

Welding Concrete Other Welding Curing Procedural Joint fit-up Coating Other Procedural Procedural Description:

Bridge No: 34-0006

Component: SEG11AE, X151C to EP170A at PP96

Reference Description: Missed UT Indication

Description of Non-Conformance:

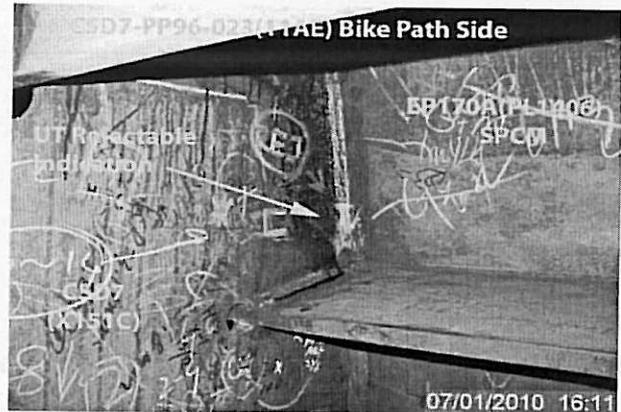
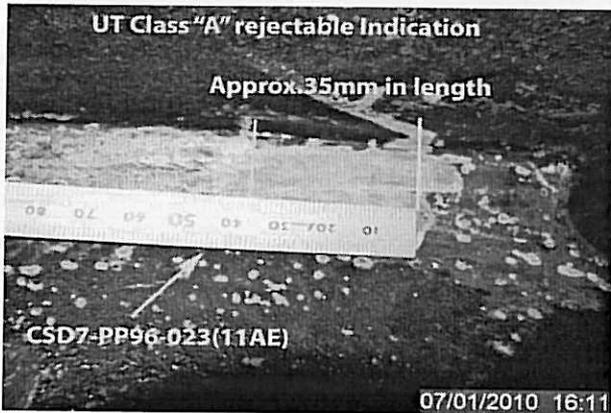
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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



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Who discovered the problem: Subhasis Bera

Name of individual from Contractor notified: Wang Kheng

Time and method of notification: 1630 hours, 07-01-10, Verbal

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: 1730 hours, 07-01-10, Verbal

QC Inspector's Name: Wang Wai Ming

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

NA

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, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Devey, Jim

SMR

Reviewed By: Wahbeh, Mazen

SMR

ZPMC-0744



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 B787-UT-13689R1 DATE 2010.07.24 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: 11AE CORNER ASSEMBLY DRAWING NO.: CSD7 CALTRANS CONTRACT NO.: 04-0120F4
 部件名称 图号 加州工程编号

REFERENCING CODE 参考规范 ACCEPTANCE STANDARD 接受标准 PROCEDURE NO. 程序编号
 AWS D1.5-2002 AWS D1.5-2002(Table 6.3) ZPQC-UT-01

WELDING PROCESS 焊接方法 JOINT TYPE 焊缝类型 CALIBRATION DUE DATE 仪器校正有效期
 SMAW CORNER-JOINT Dec. 28ST, 2010

EQUIPMENT 设备 MANUFACTURER 制造商 MODEL NO. 样式编号 SERIAL NO. 序列编号
 UT SCOPE PANAMETRICS EPOCH-4B 071565311, 061488510, 061495811, 070152011,

CALIBRATION BLOCK 试块 COUPLANT 耦合剂 MATERIAL/THICKNESS 材料厚度
 AWS IIV BLOCK TYPE II C.M.C A709M-345T2/F2-X 20/18mm

TRANSDUCER 探头

MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸	MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸
Changchao	70°	2.5MHz	18×18mm				
Changchao	0°	2.5MHz	20mm	Reference Level 参考灵敏度		20dB	

Base metal inspected per AWS D1.5-2002 Section 6.19.5 0° UT OK.

WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	Remark 备注	
					Indication Level	Reference Level	Attenuation Factor	Indication Rating	LOCATION OF DISCONTINUITY 不连续位置(mm)							
									a	b	c	d	Length 长度			Sound Path 声程
CSD7-PP096-023	1R1	70				32									ACC.	100%
AFTER B-WR13904																
BLANK																

EXAMINED BY 主探 <i>Sun Yin</i> 2010.07.24 LEVEL - II SIGN / DATE	REVIEWED BY 审核 <i>WU Chao</i> 2010.07.24 LEVEL - II SIGN / DATE
---	---

质量经理 / QCM _____ 签字 SIGN / 日期 DATE	用户CUSTOMER _____ 签字 SIGN / 日期 DATE
--	--

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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(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, China**Report No:** NCS-000741**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 01-Sep-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0744**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: 01-Jul-2010**Description of Non-Conformance:**

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The Notice of Witness Inspection (NWIT) No. is 006079. The indication is located in 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 hundred (100%) percent UT inspection of this weld.

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 is in conformance with Contract weld quality requirements. Contractor has also taken action directly with NDT Technicians to avoid similar issues in the future.

