

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 #: 04-0120F4
 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-000665

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 29-Jan-2010

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

NCR #: ZPMC-0635

Type of problem:

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Segment 8CE
Procedural	Procedural	Description:	

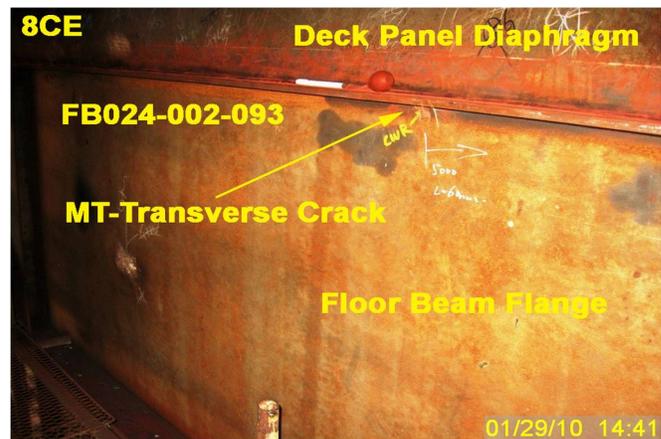
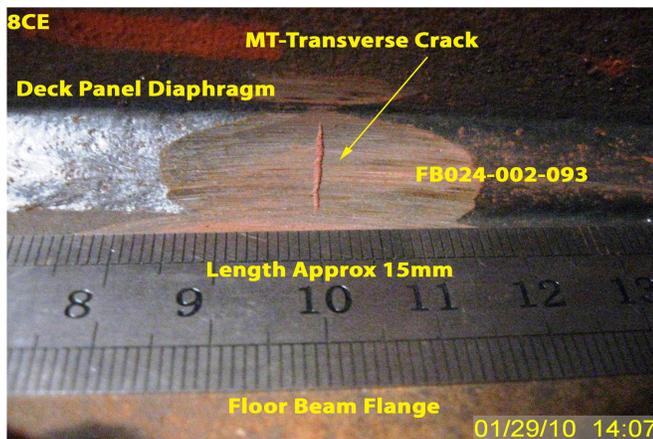
Reference Description: Missed MT indication on Deck Plate Diaphragm to Closed Rib weld, 8CE

Description of Non-Conformance:

During random Quality Assurance Visual review of welds located on segment 8CE, this Quality Assurance Inspector (QA) discovered the following issues:

- One (1) Transverse linear indication measuring approximately 15mm in length.
- The weld is a Fillet weld joining the FL3 Floor beam Web (X20C) to Flange (X7E) at panel point 69.
- The crack is clearly marked on the material near the weld.
- The weld is identified as FB024-002-093 and Indication from "Y" location is 5000mm.
- OBG segment 8CE is located in the segment repair yard north of the blast shop.
- The indication was discovered visually and confirmed by Magnetic particle Testing (MT) by Caltrans QA.
- ZPMC Quality Control Personnel have performed 25% Magnetic Particle Testing of this weld.

For further information, please see the attached pictures below.



Applicable reference:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

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: Vibin Kumar. S

Name of individual from Contractor notified: Wang Heng

Time and method of notification: 1430 hours, 01/29/10, Verbal.

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 1530 hours, 01/30/10, e-mail

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

Inspected By:	Simonis,Jim	QA Inspector
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Reviewed By:	Wahbeh,Mazen	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: 31-Jan-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: 05.03.06-000625

Subject: NCR No. ZPMC-0635

Reference Description: Missed MT indication on Deck Plate Diaphragm to Closoed Rib weld, 8CE

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:** 08

Remarks:

During random Quality Assurance Visual review of welds located on segment 8CE, this Quality Assurance Inspector (QA) discovered the following issues:

- One (1) Transverse linear indication measuring approximately 15mm in length.
- The weld is a Fillet weld joining the FL3 Floor beam Web (X20C) to Flange (X7E) at panel point 69.
- The crack is clearly marked on the material near the weld.
- The weld is identified as FB024-002-093 and Indication from "Y" location is 5000mm.
- OBG segment 8CE is located in the segment repair yard north of the blast shop.
- The indication was discovered visually and confirmed by Magnetic particle Testing (MT) by Caltrans QA.
- ZPMC Quality Control Personnel have performed 25% Magnetic Particle Testing of this weld.

Please see attached NCR ZPMC-635 for details.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences and provide documentation to show that the crack has been properly repaired to meet contract requirements. A response for the resolution of this issue is expected within 14 days.

Transmitted by: Ching Chao

Attachments: ZPMC-0635

cc: Rick Morrow, Gary Pursell, Contract Files, Ching Chao, Bill Howe

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000625

Subject: NCR No. ZPMC-0635

Dated: 08-Feb-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000565 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: The ABFJV QCM has instituted training sessions for ZPMC inspectors. In addition to training, ABF has purchased new equipment to standardize both ABF and ZPMC with the equipment used by Caltrans.

ZPMC and ABFJV have taken steps to reduce the number of both MT and UT missed indications. The ABFJV QCM has instituted training sessions for ZPMC inspectors to reinforce key points of performing UT and MT, the most recent was held in December 2009. The ZPMC Level III has conducted training with the inspectors as well. In addition to training, ABF has purchased new equipment to standardize both ABF and ZPMC with the equipment used by Caltrans. Examples of this are the powder bulbs with magnetic caps, and the same transducers used by Caltrans. Documents of the acceptable NDT will be provided when they are available at a later date. Based on this ZPMC requests that this NCR be approved with actions pending.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000565R00;

Caltrans' comments:

Status: AAP

Date: 08-Feb-2010

AAP approved.

Submitted by: Howe, Bill

Date: 08-Feb-2010

Attachment(s):

Tool Box Training Agenda

Subject: MT Techniques

Reason for Training: Several CT NCR's of indications missed during ZPMC NDT inspection.

1. Safety

- a. Safety Glasses
- b. Gloves (if required)
- c. Knee Pads
- d. Electrical shock

2. Tools

- a. Lighting
- b. MT Powder. Red for ambient, Yellow for High Temperature.
- c. Powder Bulb
- d. Powder Blower
- e. MT Yoke Adequate working condition
- f. Pie Gage

3. Inspection Techniques

- a. Lighting
- b. Position of body (distance of eyes to the weld surface)
- c. Application of Powder removal of Powder
- d. Continuous method
- e. Two directions
- f. Both sides of weld
- g. Clean and dry surface



教育培训纪录

培训编号: MT-22-Dec-09

培训内容:	MT Techniques
培训对象:	项目质检
授课人员:	Steve Lawton
培训类型:	内部培训
培训时间:	22-Dec-09 5:00 PM
计划培训地点:	ZPMC QC office

人员签到:

姓名	部门	姓名	部门
孙力杰 Sunlei	钢桥	狄坤伦 Di Kunlun	钢桥
孙广强 Sun Guangqiang	钢桥	蔡新鑫 Cai Xinxin	钢桥
徐海 Xu Hai	钢桥	傅春强 Fu Chunqiang	钢桥
卞源源 Bian Yuanyuan	钢桥	顾云武 Gu Yunwu	钢桥
许兵 Xu Bing	钢桥	金建廷 Jin Jianting	钢桥 MT
李振华 Li Zhenhua	钢桥	常方杰 Chang Fangjie	钢桥
李坤阳 Li Xunyang	QA	袁俊 Yuan Jun	钢桥
王威 Wang Wei	钢桥	刘章敏 Liu Zhangmin	
孙林 Sun Lin	钢桥 MT	徐华祥 Xu Huaxiang	钢桥
丁阿成 Ding A Cheng	钢桥 MT	周东超 Zhou Dongchao	钢桥
贺佳佳 He Jiajia	钢桥	赵成功 Zhao Cheng Gong	钢桥
黄瑞 Huang Rui	钢桥	孙广强 Sun Guangqiang	钢桥
李黎明 Li Liming	钢桥	徐辉 Xu Hui	钢桥
李昌涛 Li Changtao		刘宏斌 Liu Hongbin	



教育培训纪录

培训编号:

培训内容:	UT复习培训教程 UT Techniques
培训对象:	ZPMC UT GUYS
授课人员:	STEVE LAWTON
培训类型:	UT Refresher Training Agenda
培训时间:	2009. 12. 24. 16:30
计划培训地点:	ZPMC NDT OFFICE

人员签到:

姓名	部门	姓名	部门
戴斌 Dai Gouf sheng	江江 Jiang Jiang		
薛宇 Xuellamang	黄廷 Huang Ting		
马志长 Majzhang	黄廷 Huang Ting		
谭善 Tanxingshan	李黎明 Li Liming		
马健 Ma Jian	李黎明 Li Liming		
王福 Wang Fu	徐坤 Xu Kun		
沈健 Shen Jian	李黎明 Li Liming		
黄宇 Huang Yu			
金峰 Jin Feng			
吴文 Wu Wen			
解文 Xie Wen			
周海周 Zhou Hai Zhou			
徐峰 Xu Feng			

UT Refresher Training Agenda

Subject: UT Techniques

Reason for Training: Several CT NCR's for missed UT indications

1. **Safety**
 - a. Safety Glasses
 - b. Gloves (if required)
 - c. Knee Pads
 - d. Electrical Shock

2. **Tools**
 - a. Calibrated UT Machine condition of machine
 - b. Coaxial cable condition of cable
 - c. Transducer condition of transducer
 - d. IIW Block
 - e. Scraper
 - f. UT couplant

3. **Inspection Techniques**
 - a. Surface preparation
 - b. Location of weld UT from beveled plate
 - c. Scanning patterns
 - d. Correct choice of Angles
 - e. Calibration per ZPMC procedure at regular intervals
 - f. Scanning speed
 - g. Know where your sound is at.... First leg, second leg etc...

4. **Inspection Criteria**
 - a. Table 6.3 or Table 6.4
 - b. Are surface inspections complete VT and or MT should always occur before UT
 - c. Scanning Levels
 - d. Criteria dictated by the thinner of the two members
 - e. Planar flaws

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000625

Subject: NCR No. ZPMC-0635

Dated: 25-Feb-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000565 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: The crack will be repaired but the basis of the NCR was on a missed indication as this indication was not missed but actually in an area not inspected by ZPMC.

This indication was discovered outside of the area which ZPMC had previously inspected. The crack will be repaired but the basis of the NCR was on a missed indication as this indication was not missed but actually in an area not inspected by ZPMC, ZPMC requests that this NCR be rescinded.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000565R01;

Caltrans' comments:

Status: CLO

Date: 07-Mar-2010

The documentation received is sufficient to close this NCR.

Submitted by: Howe, Bill

Date: 07-Mar-2010

Attachment(s):



No. B-602

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-2-9

REGARDING: NCR-00665 (ZPMC-0635)

With this letter of response, ZPMC requests withdraw/closure of CT NCR-00665 (ZPMC-0635) , what mentioned that CT Inspector observed missed MT indication.

- This CT inspector noticed that this indication was located exceeding ZPMC's percentage of MT. See ZPMC-0635.
- Such issues should not been turn into NCRs.

Based on the taken actions and attached documentation, ZPMC requests withdraw/closure of this NCR.

ATTACHMENT:

NCR-00665 (ZPMC-0635)

Zhangwei
02/09/10.



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: 31-Jan-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: 05.03.06-000625

Subject: NCR No. ZPMC-0635

Reference Description: Missed MT indication on Deck Plate Diaphragm to Closoed Rib weld, 8CE

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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- Quality Control (QC) not performed in conformance with contract documents.
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- Non-Conformance Resolved.

Material Location: OBG **Lift:** 08

Remarks:

During random Quality Assurance Visual review of welds located on segment 8CE, this Quality Assurance Inspector (QA) discovered the following issues:

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- ZPMC Quality Control Personnel have performed 25% Magnetic Particle Testing of this weld.

Please see attached NCR ZPMC-635 for details.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences and provide documentation to show that the crack has been properly repaired to meet contract requirements. A response for the resolution of this issue is expected within 14 days.

Transmitted by: Ching Chao

Attachments: ZPMC-0635

cc: Rick Morrow, Gary Pursell, Contract Files, Ching Chao, Bill Howe

File: 05.03.06

DEPARTMENT OF TRANSPORTATION
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Quality Assurance and Source Inspection



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Vallejo, CA 94592-1133
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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-000665

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 29-Jan-2010

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

NCR #: ZPMC-0635

Type of problem:

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

Bridge No: 34-0006

Component: Segment 8CE

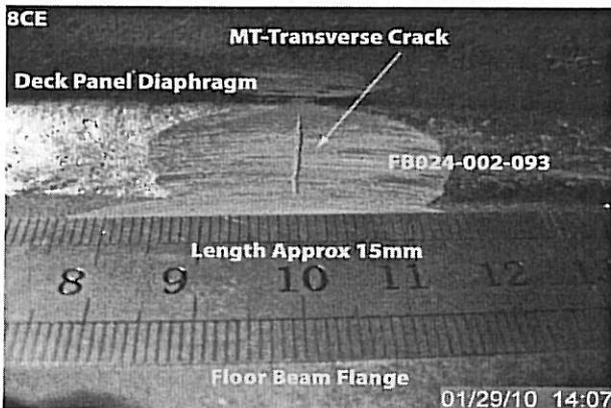
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Description of Non-Conformance:

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For further information, please see the attached pictures below.



Applicable reference:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

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: Vibin Kumar. S

Name of individual from Contractor notified: Wang Heng

Time and method of notification: 1430 hours, 01/29/10, Verbal.

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 1530 hours, 01/30/10, e-mail

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

Inspected By: Simonis,Jim

QA Inspector

Reviewed By: Wahbeh,Mazen

SMR

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, P.R. China**Report No:** NCS-000540**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 10-Mar-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0635**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: 29-Jan-2010**Description of Non-Conformance:**

During random Quality Assurance Visual review of welds located on segment 8CE, this Quality Assurance Inspector (QA) discovered the following issues:

- One (1) Transverse linear indication measuring approximately 15mm in length.
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- The indication was discovered visually and confirmed by Magnetic particle Testing (MT) by Caltrans QA.
- ZPMC Quality Control Personnel have performed 25% Magnetic Particle Testing of this weld.

For further information, please see the attached pictures below.

Contractor's proposal to correct the problem:

Repair indication and perform required NDT to verify the weld is in conformance with Contract requirements.

Corrective action taken:

NCR was rescinded as indication was discovered outside of area tested by ZPMC personnel.

Did corrective action require Engineer's approval? Yes No

If so, name of Engineer providing approval:

Date:

Is Engineer's approval attached? Yes No

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 Simonis 152. 1675.3703, who represents the Office of Structural Materials for your project.

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Inspected By: Simonis,Jim

Quality Assurance Inspector

Reviewed By: Wahbeh,Mazen

QA Reviewer