

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-000763**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 12-Jun-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0725**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: North Shaft Lift 4 Diagonal Plate
Procedural	Procedural	Description:	

Reference Description: Missed Indication on Diagonal Plate at North Shaft Lift 4**Description of Non-Conformance:**

During Magnetic Particle Testing (MT) review of welds on Diagonal Plate, CD corner – North Tower Lift-4, this Quality Assurance Inspector discovered the following issues:

- Cluster of Transverse linear indications measuring approximately 2mm to 5mm in length.
- The member is identified as Diagonal Plate.
- The weld is identified as NSTL4 – 3B/L – 20.
- The weld is a Partial Joint Penetration (PJP) T-joint joining the Diagonal plate to Skin “C”.
- One (1) Longitudinal indication measuring approximately 10mm in length.
- The member is identified as Diagonal Plate.
- The weld is identified as NSTL4 – 3J/L – 70.
- The weld is a Partial Joint Penetration (PJP) T-joint joining the Diagonal plate to 139M Double diaphragm.
- The member is Non-Seismic Performance critical Member (SPCM).
- The member is located in TOWER Bay 10.

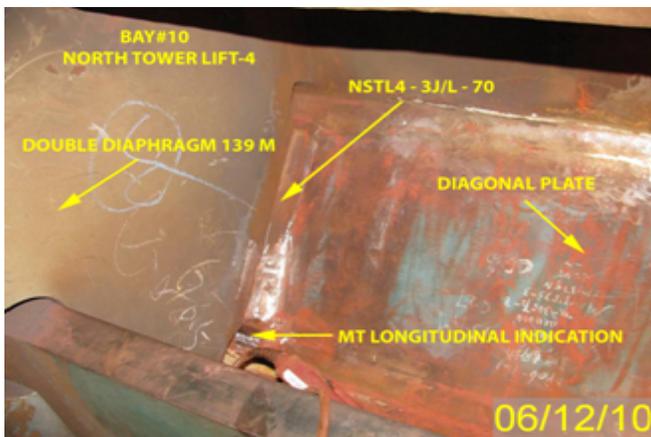
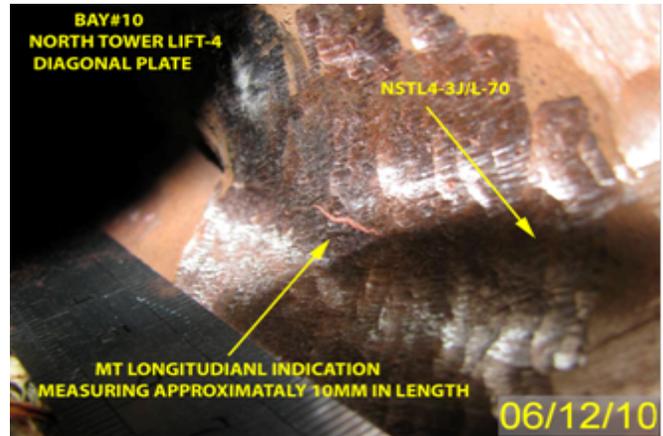
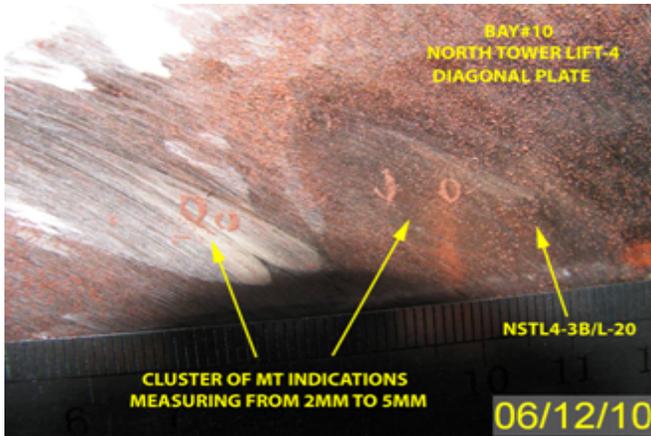
The Notice of Witness Inspection Number (NWIT) is 005962. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents,

ZPMC’s QC personnel are required to perform 100% MT inspection of these welds.

For further information, please see the attached photos and applicable reference below.

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.”

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: Naddi Sandeep Kumar

Name of individual from Contractor notified: Mr.Gao Zhi Chun

Time and method of notification: 1500 / 06/12/10 / Verbal

Name of Caltrans Engineer notified: Mr. Ken Lee

Time and method of notification: 1305/ 06/13/10 / Verbal

QC Inspector's Name: Mr. Yang Yi Heng

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

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Office of Structural Materials for your project.

Inspected By: Ng,Michael

QA Inspector

Reviewed By: Devey,Jim

SMR



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
 333 Burma Road
 Oakland CA 94607
 Tel: 510-286-0539 Fax: 510-286-0550

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
 375 BURMA ROAD
 OAKLAND CA 95607

Date: 14-Jun-2010

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

Dear: Mr. Charles Kanapicki
Attention: Mr. Thomas Nilsson Project/Fabrication Manager
Subject: NCR No. ZPMC-0725

Job Name: SAS Superstructure
Document No: 05.03.06-000720

Reference Description: Missed Indication on Diagonal Plate at North Shaft Lift 4/ Tower/ Lift 4 North Shaft Diagonal Plate

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: Tower **Lift:** 04

Remarks:

During Magnetic Particle Testing (MT) review of welds on Diagonal Plate, CD corner – North Tower Lift-4, the following was discovered:

Cluster of Transverse linear indications measuring approximately 2mm to 5mm in length.

- The member is identified as Diagonal Plate.
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- The weld is a Partial Joint Penetration (PJP) T-joint joining the Diagonal plate to 139M Double diaphragm.

The member is a Non-Seismic Performance critical Member (SPCM).
 The member is located in TOWER Bay 10.

The Notice of Witness Inspection Number (NWIT) is 005962. The indication is located inside the area that has been 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 these welds.

For further information, please see the attached photos and applicable reference below.

- 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.

Action Required and/or Action Taken:

Propose resolutions for the identified non-conformance items and document that the various deficiencies have been brought in compliance with contract requirements. Also propose a resolution that addresses the apparent failure of Quality Control to identify the non-conformance with the appropriate Welding Procedure Specification (WPS). Provide documentation of the steps taken by the

NCT

(Continued Page 2 of 2)

Quality Control Manager to prevent future occurrences.

The response for the resolution of this issue is requested within 7 days.

Transmitted by: Gina Rizzardo Transportation Engineer

Attachments: ZPMC-0725

cc: Rick Morrow, Gary Pursell, Mark Woods

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000720

Subject: NCR No. ZPMC-0725

Dated: 03-Sep-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000763 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has grinded the area to remove the indications and is submitting NDT after grinding to show that the indications have been removed.

ZPMC has grinded the area to remove the indications and is submitting NDT after grinding to show that the indications have been removed. ABFJV and ZPMC identify personnel involved in cases of missed indications and discuss the situation and determine what the inspector can do better in the future to prevent missed indications. Based on this ZPMC, requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000763R00;

Caltrans' comments:

Status: CLO

Date: 12-Sep-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0725 is closed.

Submitted by: Eagen, Sean

Attachment(s):

Date: 12-Sep-2010



No. T-159

LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2010-09-02

REGARDING: NCR-000763(ZPMC-0725)

ZPMC received NCR-000763(ZPMC-0725), it mentioned that CT inspectors found indications on welds.

ZPMC realized this problem, and carried out grinding as CT pointed out. After grinding the indications were removed and the surface was smooth. Finally the related welds were accepted and green tagged by CT inspector. Here attached the related MT report to prove the welds are sound after repairing. As a conscientious attitude, we have already inculcated the NDT personal to perform cautiously, and also necessary training has already been carried out. So it's believable the future behavior will get better.

Basing on above information, ZPMC hope CT could take a review and close the NCR.

ATTACHMENT:

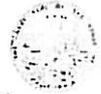
NCR-000763(ZPMC-0725)

T787-MT-10883

T787-MT-10884

Zhang Jindong
2010.9.02

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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-000763

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 12-Jun-2010

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

NCR #: ZPMC-0725

Type of problem:

Welding Concrete Other

Welding Curing Procedural Bridge No: 34-0006

Joint fit-up Coating Other Component: North Shaft Lift 4 Diagonal Plate

Procedural Procedural Description:

Reference Description: Missed Indication on Diagonal Plate at North Shaft Lift 4

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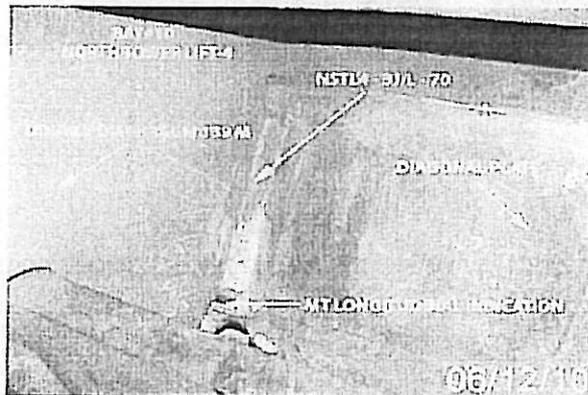
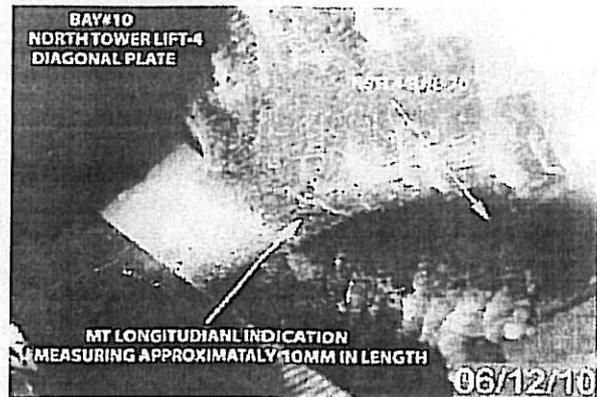
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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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Office of Structural Materials for your project.

Inspected By: Ng, Michael

QA Inspector

Reviewed By: Devcy, Jim

SMR

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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-000788**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 03-Sep-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0725**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: 12-Jun-2010**Description of Non-Conformance:**

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Contractor's proposal to correct the problem:

Contractor proposes to repair the missed indication by grinding, submit the NDT report to confirm the welds are acceptable. Contractor will also discuss the root cause of the problem how to prevent future occurrences with personnel.

Corrective action taken:

Contractor repaired the defects noted by grinding. NDT documentation with acceptable results was provided for the Department. Contractor discussed the cause of the problem and ways of improvement with personnel to prevent future occurrences.

