

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, PRC

Report No: NCR-000402

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 07-Sep-2009

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

NCR #: ZPMC-0376

Type of problem:

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Tower Struts
Procedural	Procedural	Description: Tower Type 2 Struts	

Reference Description: Missed MT indications on Tower Type 2 Struts

Description of Non-Conformance:

During Magnetic Particle Testing (MT) of strut welds WD1-A467-18M-2-53 and WD1-A467-38M-1-88, QA discovered transverse linear indications measuring approximately 13mm and 5mm in length. These welds were previously accepted by ZPMC QC personnel.



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 D1.5-2002 Section 6.26.2 – “Welds that are subject to MT in addition to visual inspection shall have no cracks.

Who discovered the problem: Baskar Govindarajan

Name of individual from Contractor notified: Bi Dewei

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Time and method of notification: 09-05-2009, 16:35; Verbal

Name of Caltrans Engineer notified: Scott Kennedy

Time and method of notification: 09-07-2009, 7:00; Verbal

QC Inspector's Name: Mr. Canon

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

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 Serge Sinevod, 134-8257-0045, who represents the Office of Structural Materials for your project.

Inspected By:	Sinevod,Serge	ASMR
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Reviewed By:	Wahbeh,Mazen	SMR
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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: 07-Sep-2009

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: 05.03.06-000364

Subject: NCR No. ZPMC-0376

Reference Description: Missed Indications (MT) / Tower Type 2 Struts / Transverse Linear Indications

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:**

Remarks:

During Magnetic Particle Testing (MT) of strut welds WD1-A467-18M-2-53 and WD1-A467-38M-1-88, QA discovered transverse linear indications measuring approximately 13mm and 5mm in length. These welds were previously accepted by ZPMC QC personnel.

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 D1.5-2002 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 a resolution for this systematic non-conformance that addresses the failure of Quality Control to identify the linear indications during magnetic particle testing of the welds. Provide documentation of the steps/actions taken by the Quality Control Manager to prevent future occurrences.

In addition to the Quality Control non-conformance, address the material/workmanship for the identified non-conformance including documentation that the deficiencies have been brought into compliance with the contract requirements. Additionally address the probable causes for the indications and the actions that will be taken to limit future occurrences.

Recent failures by Quality Control to identify linear indications (MT) have resulted in the issuance of NCR ZPMC-0358, ZPMC-0359, ZPMC-0371, ZPMC-0372, ZPMC-0373 and ZPMC-0375 related to Tower.

Transmitted by: Scott Kennedy Sr. Bridge Engineer
Attachments: ZPMC-0376

NCT

(Continued Page 2 of 2)

cc: Rick Morrow, Gary Pursell, Mark Woods, Doug Coe

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000364

Subject: NCR No. ZPMC-0376

Dated: 16-Sep-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000357 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has included the necessary documentation to provide objective evidence repair work has been completed. ZPMC requests closure of this NCR.

ZPMC has included the necessary documentation to provide objective evidence repair work has been completed. ZPMC requests closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000357R00;

Caltrans' comments:

Status: CLO

Date: 17-Sep-2009

The proposed resolution is acceptable. The Department concurs that Non-Conformance ZPMC-0376 is closed.

Submitted by: Lee, Ken

Date: 17-Sep-2009

Attachment(s):



No. T-057

LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2009-9-16

REGARDING: NCR-000402(ZPMC-0376)

ZPMC received NCR-000402(ZPMC-0376), it mentioned that CT inspector discovered transverse linear indications measuring approximately 13mm and 5mm in length on strut weld WD1-A467-18M-2 and WD1-A467-38M-1, which were previously tested and accepted by ZPMC MT technicians. The relational weld was WD1-A467-18M-2-53 and WD1-A467-38M-1-88.

ZPMC acknowledged this problem, and arranged ZPMC's worker to deal with that. After smoothly grinding, the indication has been taken out. Finally performed re-inspection by MT, and also such weld was re-inspected and accepted by CT inspector. In order to avoid such problem occurs again ZPMC will perform NDT work according to related procedures strictly, and enhance QC be more responsible. Here attached the MT reports to prove the weld was perfect .

So ZPMC hope Caltrans could take a review and consider close the NCR.

ATTACHMENT:

NCR-000402(ZPMC-0376)

T787-MT-5812

Inspection Notification Sheet 4198

QA: Canon

2009-9-16



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: 07-Sep-2009

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: 05.03.06-000364

Subject: NCR No. ZPMC-0376

Reference Description: Missed Indications (MT) / Tower Type 2 Struts / Transverse Linear Indications

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:

Remarks:

During Magnetic Particle Testing (MT) of strut welds WD1-A467-18M-2-53 and WD1-A467-38M-1-88, QA discovered transverse linear indications measuring approximately 13mm and 5mm in length. These welds were previously accepted by ZPMC QC personnel.

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 D1.5-2002 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 a resolution for this systematic non-conformance that addresses the failure of Quality Control to identify the linear indications during magnetic particle testing of the welds. Provide documentation of the steps/actions taken by the Quality Control Manager to prevent future occurrences.

In addition to the Quality Control non-conformance, address the material/workmanship for the identified non-conformance including documentation that the deficiencies have been brought into compliance with the contract requirements. Additionally address the probable causes for the indications and the actions that will be taken to limit future occurrences.

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Transmitted by: Scott Kennedy Sr. Bridge Engineer
Attachments: ZPMC-0376

NCT

(Continued Page 2 of 2)

cc: Rick Morrow, Gary Pursell, Mark Woods, Doug Coe

File: 05.03.06

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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, PRC

Report No: NCR-000402

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 07-Sep-2009

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

NCR #: ZPMC-0376

Type of problem:

Welding Concrete Other
 Welding Curing Procedural Bridge No: 34-0006
 Joint fit-up Coating Other Component: Tower Struts
 Procedural Procedural Description: Tower Type 2 Struts

Reference Description: Missed MT indications on Tower Type 2 Struts

Description of Non-Conformance:

During Magnetic Particle Testing (MT) of strut welds WD1-A467-18M-2-53 and WD1-A467-38M-1-88, QA discovered transverse linear indications measuring approximately 13mm and 5mm in length. These welds were previously accepted by ZPMC QC personnel.



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.”

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Who discovered the problem: Baskar Govindarajan

Name of individual from Contractor notified: Bi Dewei

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Time and method of notification: 09-05-2009, 16:35; Verbal

Name of Caltrans Engineer notified: Scott Kennedy

Time and method of notification: 09-07-2009, 7:00; Verbal

QC Inspector's Name: Mr. Canon

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

Comments:

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Inspected By:	Sinevod,Serge	ASMR
Reviewed By:	Wahbeh,Mazen	SMR



NDT客户检验通知单

NDT Inspection Notification Sheet

Shift	DAY AFTER NOON	待检验构件 Inspection part	产品分类 Section	申请递交时间: Submit time: 2009-9-11 15:40	文件编号:004198 Document No.
		WD1-A467-18M-2 WD1-A467-38M-1	TOWER STRUT	检验场地 Inspection Place	计划检验时间 Inspection Time
		TC05.03.08-000021 for fabricated strut			2009-9-11 16:00 FOR GREEN TAG

备注: 1、见证通知发出后, 现场等待时间通常不超过30分钟; 如有变动, 现场通知。

Note: 1、When ZPMC give this table to Caltrans, Zpmc will do the inspection in 30 minutes. If we change the plan, we will inform Caltrans in the shop.

2、ZPMC根据自己的检验控制点 (HOLD POINT) 进行日常检验。

2、ZPMC will do any inspection according to the HOLD POINT.

3、此单为临时试用单, 仅适用于完工焊缝的NDT检验见证通知。

3、This table is a temporary one, just for final NDT inspection notification.

4、QC检验完成后, QA是否需要复验, 由QA自行决定, QC不再另行通知。复验等待时间通常为24小时。

4、When ZPMC QC finish NDT inspection, Caltrans QA can decide if they want to retest it. ZPMC QC will not inform Caltrans again. The waiting time is 24 hours ordinarily.

5、具体焊缝编号请查看附页。

5、The weld ID is on the attachment.

0166
联系人: Helen Xue
Requested By: 09.09.11 15:40

CT签收人:
CT Receiver:

签收时间:
Time:

DEPARTMENT OF TRANSPORTATION

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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, PRC**Report No:** NCS-000296**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 18-Sep-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0376**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: 07-Sep-2009**Description of Non-Conformance:**

During Magnetic Particle Testing (MT) of strut welds WD1-A467-18M-2-53 and WD1-A467-38M-1-88, QA discovered transverse linear indications measuring approximately 13mm and 5mm in length. These welds were previously accepted by ZPMC QC personnel.

Contractor's proposal to correct the problem:

Repair affected welds and submit documentation that the welds are sound.

Corrective action taken:

The affected welds have been repaired and a NDT report indicating sound welds has been submitted. The welds have since been verified by QA and green tagged.

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:**

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Inspected By: Sinevod, Serge

Quality Assurance Inspector

Reviewed By: Wahbeh, Mazen

QA Reviewer