

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-000334

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 20-Jun-2009

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

NCR #: ZPMC-0308

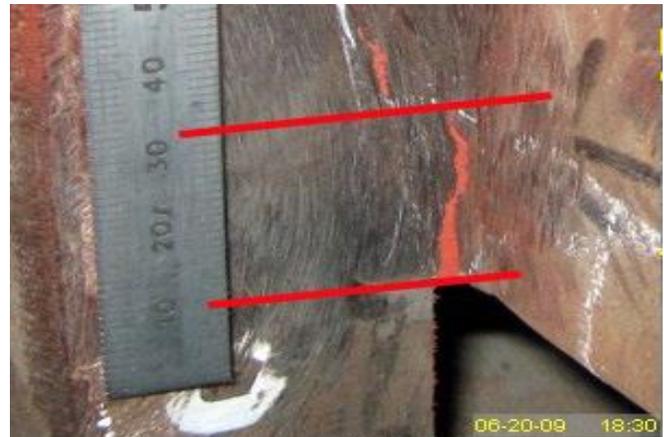
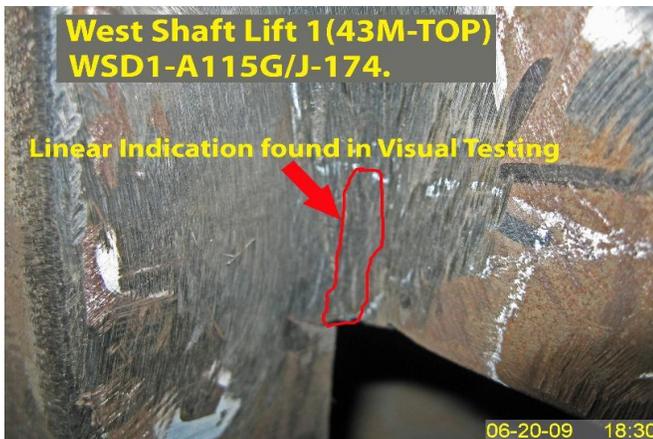
Type of problem:

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: West Tower, Lift 1
Procedural	Procedural	Description: Missed linear indication in West Tower, Lift 1	

Reference Description: Missed linear indication on West Tower, Lift 1, 43m diaphragm to fit-lug weld

Description of Non-Conformance:

During random verification Visual Inspection of West Tower, Lift 1, QA discovered a linear indication on 43m diaphragm to fit-lug weld WSD1-A115G/J-174. This weld was 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: Amit K. Juvekar

Name of individual from Contractor notified: Chen Wen Liang

Time and method of notification: 6/20/2009, 19:00; Verbal

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Name of Caltrans Engineer notified: Scott Kennedy
Time and method of notification: 6/22/2009, 8:00; Verbal
QC Inspector's Name: You Qi Guo
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
Reviewed By:	Wahbeh,Mazen	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:	22-Jun-2009
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-0308	Document No:	05.03.06-000287

Reference Description: Linear Indication (VT) / West Shaft Lift 1 / 43m Diaphragm / Fit Lug Weld

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:** 01

Remarks:

During random verification Visual Inspection of West Tower, Lift 1, QA discovered a linear indication on 43m diaphragm to fit-lug weld WSD1-A115G/J-174. This weld was 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 the identified non-conformance including documentation that the deficiency has been brought into compliance with the contract requirements. Additionally address the probable causes for the indication and any actions that will be taken to limit future occurrences.

In addition to the material/workmanship non-conformance, propose a resolution that addresses the failure of Quality Control to identify the linear indication during visual inspection of the weld. Provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences.

Recent failures by Quality Control to identify linear indications during visual inspection have resulted in the issuance of NCR ZPMC-0250, ZPMC-0292 (Tower) and ZPMC-0258 (OBG).

Transmitted by: Scott Kennedy Sr. Bridge Engineer
Attachments: ZPMC-0308

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: 05.03.06-000287

Subject: NCR No. ZPMC-0308

Dated: 13-Jul-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000259 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has responded to the NCR and has attached the necessary documents for closure. ZPMC requests closure of this NCR.

ZPMC has responded to the NCR and has attached the necessary documents for closure. ZPMC requests closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000259R00;

Caltrans' comments:

Status: AAP

Date: 05-Aug-2009

The response is acceptable, but the Non-Conformance is not closed. The attachment did not include any inspection documentation for the weld in question.

Please provide documentation of the weld repairs that were performed and that the repairs were acceptable. The Department will review the Contractor's proposal to close Non-Conformance ZPMC-0308 at that time.

Submitted by: Wright, Doug

Date: 05-Aug-2009

Attachment(s):



No. T-032

LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2009-6-29

REGARDING: NCR-000334 ZPMC-0308

ZPMC received NCR-000334(ZPMC-0308), the original contents is: "During random verification visual inspection of west tower , lift 1, QA discovered a linear indication on 43m diaphragm to fit-lug weld WSD1-A115G/J-174.This weld was previously accepted by ZPMC QC personnel.

We ZPMC give the notification 3481 for the FINAL VT WORK, but CT people Amit K.Juvekar verify with the MT machine to make sure it is a crack, at evening about the 20:30 with the CT people Umesh Gaikwad witness we removed the crack ,and he also did the MT work himself to make sure remove the crack. About the crack we just grinded and removed the crack didn't do the welding repair work.

So ZPMC hope Caltrans can take a review and close this NCR.

ATTACHMENT:

Li Xiaojing
09. 6. 29

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: 22-Jun-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: 05.03.06-000287

Subject: NCR No. ZPMC-0308

Reference Description: Linear Indication (VT) / West Shaft Lift 1 / 43m Diaphragm / Fit Lug Weld

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.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

Material Location: Tower

Lift: 01

Remarks:

During random verification Visual Inspection of West Tower, Lift 1, QA discovered a linear indication on 43m diaphragm to fit-lug weld WSD1-A115G/J-174. This weld was 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 the identified non-conformance including documentation that the deficiency has been brought into compliance with the contract requirements. Additionally address the probable causes for the indication and any actions that will be taken to limit future occurrences.

In addition to the material/workmanship non-conformance, propose a resolution that addresses the failure of Quality Control to identify the linear indication during visual inspection of the weld. Provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences.

Recent failures by Quality Control to identify linear indications during visual inspection have resulted in the issuance of NCR ZPMC-0250, ZPMC-0292 (Tower) and ZPMC-0258 (OBG).

Transmitted by: Scott Kennedy Sr. Bridge Engineer
Attachments: ZPMC-0308

02.02.15.04
05.03.06-000287,NCT

Received
NCT-000287 22 Jun 09 Page 1 of 2

NCT

(Continued Page 2 of 2)

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

File: 05.03.06

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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, PRC**Report No:** NCR-000334**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 20-Jun-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0308**Type of problem:**Welding Concrete Other Welding Curing Procedural Bridge No: 34-0006Joint fit-up Coating Other Component: West Tower, Lift 1Procedural Procedural Description: Missed linear indication in West Tower, Lift 1**Reference Description:** Missed linear indication on West Tower, Lift 1, 43m diaphragm to fit-lug weld**Description of Non-Conformance:**

During random verification Visual Inspection of West Tower, Lift 1, QA discovered a linear indication on 43m diaphragm to fit-lug weld WSD1-A115G/J-174. This weld was 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: Amit K. Juvekar**Name of individual from Contractor notified:** Chen Wen Liang**Time and method of notification:** 6/20/2009, 19:00; Verbal

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Name of Caltrans Engineer notified: Scott Kennedy

Time and method of notification: 6/22/2009, 8:00; Verbal

QC Inspector's Name: You Qi Guo

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

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000287

Subject: NCR No. ZPMC-0308

Dated: 09-Dec-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000259 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: Attached is the documentation previously referenced in the ABFJV's NPR. Based on this documentation, ZPMC is requesting closure of the NCR.

Attached is the documentation previously referenced in the ABFJV's NPR. Based on this documentation, ZPMC is requesting closure of the NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000259R01;

Caltrans' comments:

Status: CLO
Date: 10-Dec-2009

The proposed resolution is acceptable. The Department concurs that Non-conformance ZPMC-0308 is closed.

Submitted by: Lee, Ken

Attachment(s):

Date: 10-Dec-2009



No. T-032

LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2009-6-29

REGARDING: NCR-000334 ZPMC-0308

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So ZPMC hope Caltrans can take a review and close this NCR.

ATTACHMENT:

Li Xiaoyang
09. 6. 29

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: 22-Jun-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: 05.03.06-000287
Subject: NCR No. ZPMC-0308

Reference Description: Linear Indication (VT) / West Shaft Lift 1 / 43m Diaphragm / Fit Lug Weld

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- Non-Conformance Resolved.

Material Location: Tower

Lift: 01

Remarks:

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Action Required and/or Action Taken:

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Transmitted by: Scott Kennedy Sr. Bridge Engineer

Attachments: ZPMC-0308

05.03.06-000287.NCT

Received
05.03.06-000287 22 Jun 09 Page 1 of 2

NCT

(Continued Page 2 of 2)

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

File: 05.03.06

DEPARTMENT OF TRANSPORTATION
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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, PRC

Report No: NCR-000334

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 20-Jun-2009

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

NCR #: ZPMC-0308

Type of problem:

Welding Concrete Other

Welding Curing Procedural **Bridge No:** 34-0006

Joint fit-up Coating Other **Component:** West Tower, Lift 1

Procedural Procedural **Description:** Missed linear indication in West Tower, Lift 1

Reference Description: Missed linear indication on West Tower, Lift 1, 43m diaphragm to fit-lug weld

Description of Non-Conformance:

During random verification Visual Inspection of West Tower, Lift 1, QA discovered a linear indication on 43m diaphragm to fit-lug weld WSD1-A115G/J-174. This weld was previously accepted by ZPMC QC personnel.



Applicable reference:

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Who discovered the problem: Amit K. Juvekar

Name of individual from Contractor notified: Chen Wen Liang

Time and method of notification: 6/20/2009, 19:00; Verbal

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Name of Caltrans Engineer notified: Scott Kennedy

Time and method of notification: 6/22/2009, 8:00; Verbal

QC Inspector's Name: You Qi Guo

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
Reviewed By:	Wahbeh,Mazen	SMR

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-000239**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 05-Aug-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0308**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-Jun-2009**Description of Non-Conformance:**

During random verification Visual Inspection of West Tower, Lift 1, QA discovered a linear indication on 43m diaphragm to fit-lug weld WSD1-A115G/J-174. This weld was previously accepted by ZPMC QC personnel.

Contractor's proposal to correct the problem:

Repair affected weld.

Corrective action taken:

The linear indication was completely removed by grinding. The weld has been verified by QA.

To resolve the recurring failure for QC to detect MT indications, ABF has held verbal interviews with ZPMC QC and MT technicians on several occasions. ABF has requested ZPMC to provide an analysis of missed indications to determine if they can be traced to a personnel trend, such as an inspector, welder, or weld location. ABF has also informed ZPMC to ensure adequate lighting is provided during inspections. Tests have also been administered to ZPMC MT technicians to demonstrate their ability to detect MT indications.

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