

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, PRC**Report No:** NCR-000102**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 02-Apr-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0100**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: 114-meter Mock-Up
Procedural	Procedural	Descriptor:	Welded Interior Splice Connection Plate

Reference Description: Special Provisions 8-3.01 Welding**Description of Non-Conformance:**

The ZPMC Quality Control (QC) Inspector was observed using unapproved procedures while performing Ultrasonic Testing on the complete joint penetration weld on interior corner splice plate, piece MUC-116, for the 114m Mockup. During the UT inspection high amplitude ultrasonic signals were observed when scanning the weld toe areas. The QC inspector observed that the UT signals were "finger dampened" in order to decrease the amplitude of the signals, this technique is not allowed by the Special Provisions.

Applicable reference:

Special Provisions 8-3.01 Welding, page "Questionable test results are defined as test results containing relevant or non-relevant indications or results from a situation where a defect may have been masked by the weld profile. Finger dampening the ultra-sonic (UT) signal shall not be considered resolution of questionable test results." and "Groove weld surface profiles that interfere with the performance of the NDT procedure or produce questionable test results shall be ground smooth and blended with the adjacent material."

Who discovered the problem: M. Paul Stovall, Quality Assurance Inspector**Name of individual from Contractor notified:** Kevin Carpenter**Time and method of notification:** 04/03/08; 0910, Verbal**Name of Caltrans Engineer notified:** Scott Kennedy, Structure Representative**Time and method of notification:** 04/02/08; 0745; Verbal**QC Inspector's Name:** Xue Hai Yong, ZPMC**Was QC Inspector aware of the problem:** Yes No**Contractor's proposal to correct the problem:**

None at this time.

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.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Inspected By: Wahbeh,Mazen

Quality Assurance Inspector

Reviewed By: Wahbeh,Mazen

QA Reviewer



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge

333 Burma Road
Oakland CA 94607
Tel: Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: American Bridge/Fluor Enterprises, a JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 03-Apr-2008

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

Dear: Mr. Charles Kanapicki

Job Name: SAS Superstructure

Attention: Mr. Dave Williams Consultant

Document No: 05.03.06-000079

Subject: NCR No. ZPMC-0100

Reference Description: Special Provisions 8-3.01 Welding / 114-meter Mock-up

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 - No Response Required.

Material Location: Tower **Lift:** N/A

Remarks:

The QC inspector observed that the UT signals were “finger dampened” in order to decrease the amplitude of the signals. This is the same technique that resulted to the issuance of NCR ZPMC-0098. See attached NCR No:ZPMC-0100 for details.

Action Required and/or Action Taken:

Propose a resolution that ensures that this systematic non-conformance with the contract documents will not continue to occur and the steps taken by the welding Quality Control Manager to prevent future occurrences.

Transmitted by: Scott Kennedy Sr. Bridge Engineer

Attachments: ZPMC-0100

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

Dated: 25-Aug-2008

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

Attention: Pursell, Gary
Resident Engineer

Job Name: SAS Superstructure

Document No.: ABF-NPR-000102 Rev: 00

Ref: 05.03.06-000079

Subject: NCR No. ZPMC-0100

Contractor's Proposed Resolution:

Reference Resolution: Inspectors have been notified that finger damping cannot be used to determine the acceptability of a weld

Inspectors have been notified that finger damping cannot be used to determine the acceptability of a weld. If indications exist that exceed the reference level they shall be repaired.

Submitted by: Mackey, Kim

Attachment(s): ABF-NPR-000102R00

Caltrans' comments:

Status: CLO

Date: 01-Oct-2008

The proposed resolution is acceptable. Finger dampening during Ultrasonic Testing has no longer been an issue. The Department concurs that Non-Conformance ZPMC-0100 is closed.

Submitted by: Wright, Doug

Date: 01-Oct-2008

Attachment(s):

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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-000143**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 22-Dec-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0100**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: 02-Apr-2008**Description of Non-Conformance:**

The ZPMC Quality Control (QC) Inspector was observed using unapproved procedures while performing Ultrasonic Testing on the complete joint penetration weld on interior corner splice plate, piece MUC-116, for the 114m Mockup. During the UT inspection high amplitude ultrasonic signals were observed when scanning the weld toe areas. The QC inspector observed that the UT signals were "finger dampened" in order to decrease the amplitude of the signals, this technique is not allowed by the Special Provisions.

Contractor's proposal to correct the problem:

Inspectors are to be notified that "finger damping" cannot be used to determine the acceptability of a weld. If indications exist that exceed the reference level they shall be repaired.

Corrective action taken:

Inspectors have been notified that "finger damping" cannot be used to determine the acceptability of a weld. Finger dampening during Ultrasonic Testing has no longer been an issue.

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: Sinevod, Serge

QA Reviewer