

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-000203**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 13-Oct-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0181**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Tower Stiffener to Skin
Procedural	Procedural	Descriptor: p708 Stiffener to Skin Weld	

Reference Description: 04-0120F4 Special Provisions**Description of Non-Conformance:**

ZPMC did not follow the approved fabrication plan for welding stiffeners to skin when welding stiffener E3, to Skin E of the East shaft. p708 of stiffener E3 was not welded when the other stiffeners were welded to Skin E. The approved fabrication plan shows that all stiffener to skin welds will be complete with welding and NDT before fit-up of the Skin E to Skin A.

**Applicable reference:**

Special Provisions, Section 10-1.59, "Fabrication", "The Contractor shall submit to the Engineer for approval in accordance with the requirements in "Working Drawings" of these special provisions, written, detailed procedures for the fabrication and erection of the complex assemblies listed below....B. Tower Shaft Segment, including Shell Plating Sequence."

Who discovered the problem: ZPMC**Name of individual from Contractor notified:** Dan Raynor**Time and method of notification:** 10/14/08; 1000; Verbal

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Name of Caltrans Engineer notified: Scott Kennedy

Time and method of notification: 10/11/08; 1030; RFI in PMIV

QC Inspector's Name: N/A

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

For future Skin E production this stiffener will be welded ahead of assembly to fix this problem. However, for this skin the following is proposed as a resolution.

1. Remove Part p708 from Skin E, by removing the Longitudinal Stiffener butt weld and its tack welds to skin.
2. Butter bevel and re-groove 1210mm of length for a single-sided CJP as depicted on the diagram below, which will be welded in 1-G position.
3. Introduce R75 weld access hole on the longitudinal stiffener at the intersection of longitudinal stiffener butt weld and to skin weld.
4. Fit and tack Part p708 to Skin E and Longitudinal Stiffener E3.
5. Weld the longitudinal stiffener butt splice and to skin single-side CJP joint.

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 Josh Ishibashi, who represents the Office of Structural Materials for your project.

Inspected By: Ishibashi,Josh

SMR

Reviewed By: Smith,Ryan

SMR



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
333 Burma Road
Oakland CA 94607
Tel: 510-622-5151 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

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

Date: 16-Oct-2008

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

Dear: Mr. Charles Kanapicki

Job Name: SAS Superstructure

Attention: Mr. Charles Kanapicki Quality Control Manager

Document No: 05.03.06-000174

Subject: NCR No. ZPMC-0181

Reference Description: Inaccessability of "E3" stiffener Welding

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:

ZPMC did not follow the approved fabrication plan for welding stiffeners to skin when welding stiffener E3, to Skin E of the East shaft. p708 of stiffener E3 was not welded when the other stiffeners were welded to Skin E.

The approved fabrication plan shows that all stiffener to skin welds will be complete with welding and NDT before fit-up of the Skin E to Skin A. This deviation from the approved fabrication procedure may have resulted in the inaccessability of the "E3" welding.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with the approved repair procedures and the steps taken by the Quality Control Manager to prevent future failures to follow the submitted and approved procedures

Transmitted by: Kannu Balan Sr. Engineer

Attachments: ZPMC-0181

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Mark Woods, Doug Coe, Mike Forner, Scott Kennedy

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000174

Subject: NCR No. ZPMC-0181

Dated: 28-Oct-2008

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000175 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has submitted an RFI to perform an alternate method of fabrication in the as installed condition. All future fabrications of this type will be performed per the fabrication plan.

An error occurred during the fabrication of Stiffener E3 to Skin E of East Shaft of Stiffener E3. This welding should have occurred in the sequence as shown on the fabrication plan. ZPMC has submitted an RFI to perform an alternate method of fabrication in the as installed condition. All future fabrications of this type will be performed per the fabrication plan.

Submitted by:

Attachment(s): ABF-NPR-000175R00

Caltrans' comments:

Status: CLO

Date: 05-Nov-2008

The proposed resolution is acceptable. The procedure detailed in RFI 1537R01 is acceptable. The Department concurs that Non-Conformance ZPMC-0181 is closed.

In the future, any change to the approved repair procedure shall be submitted to the Engineer for review and approval prior to commencing work.

Submitted by: Wright, Doug

Date: 05-Nov-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-000203**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 20-Mar-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0181**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: 13-Oct-2008**Description of Non-Conformance:**

ZPMC did not follow the approved fabrication procedure for welding stiffener E3 to Skin E of East shaft, Lift 1.

P708 of stiffener E3 was left unwelded when the other stiffeners were welded to Skin E. The approved fabrication procedure shows that all stiffener to skin welds will be completed before fit-up of Skin E to Skin A.

Contractor's proposal to correct the problem:

For future Skin E production this stiffener will be welded ahead of assembly to fix this problem; however, for this skin the following is proposed as a resolution:

1. Remove Part p708 from Skin E by removing the longitudinal stiffener butt weld and its tack welds to skin.
2. Butter bevel and re-groove 1210mm of length for a single-sided CJP, which will be welded in 1G position.
3. Introduce R75 weld access hole on the longitudinal stiffener at the intersection of longitudinal stiffener butt weld and to skin weld.
4. Fit and tack Part p708 to Skin E and longitudinal stiffener E3.
5. Weld the longitudinal stiffener butt splice and to skin single-side CJP joint.

Corrective action taken:

ZPMC successfully completed the weld repair on stiffener E3 of East Shaft, Lift 1. Skin plate E has since been jointly green tagged by the Department, ABF, and ZPMC on 3/18/2009.

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 Serge Sinevod (86) 134-8257-0045, who represents the Office of Structural Materials for your project.

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

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Inspected By: Sinevod,Serge

Quality Assurance Inspector

Reviewed By: Wahbeh,Mazen

QA Reviewer