

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-000226**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 04-Jan-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0201**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: ESD1-Lift 1
Procedural	Procedural	Description: Skin C, Longitudinal Stiffener C1 - 43m Diaphragm	

Reference Description: Premature removal of PJP fit lug "dogs"**Description of Non-Conformance:**

It was observed by QA that ZPMC welding personnel welded East Shaft, Lift 1, Skin C, fit lug partial joint penetration welds out of sequence. The Partial Joint Penetration (PJP) weld connecting the fit-lug to the longitudinal stiffener was completed. The "dog" securing the fit-lug to diaphragm plate was removed, prior to welding the fit lug to diaphragm.

**Applicable reference:**

The PJP fit lug welding sequence, as outlined in Submittal ABF-SUB-000101R03, indicates that final PJP weld passes must be completed for the fit lug to longitudinal stiffener welds and the fit lug to diaphragm welds prior to removing "dogs."

Who discovered the problem: William Clifford**Name of individual from Contractor notified:** Don Walton**Time and method of notification:** 01-04-09, 10:30, Verbal**Name of Caltrans Engineer notified:** Scott Kennedy

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Time and method of notification: 01-05-09, 9:30, Verbal

QC Inspector's Name: Fu Guo Gang

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 Mazen Wahbeh,(818) 292-0659, 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: 510-808-4618 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

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

Date: 13-Jan-2009

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: 05.03.06-000193

Subject: NCR No. ZPMC-0201

Reference Description: Premature removal of PJP fit lug "dogs"

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:

It was observed by QA that ZPMC welding personnel welded East Shaft, Lift 1, Skin C, fit lug partial joint penetration welds out of sequence. The Partial Joint Penetration (PJP) weld connecting the fit-lug to the longitudinal stiffener was completed. The "dog" securing the fit-lug to diaphragm plate was removed, prior to welding the fit lug to diaphragm.

Action Required and/or Action Taken:

This is inconsistent with the fabrication procedure used for the successful completion of the partial mock-up. Propose a resolution for the identified non-conformance with the revised procedures to prevent future occurrences.

Transmitted by: Ken Lee Transportation Engineer

Attachments: ZPMC-0201

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: 05.03.06-000193

Subject: NCR No. ZPMC-0201

Dated: 19-Feb-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000198 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: Purposed resolution to NCR ZPMC-0201

ZPMC applied the dogs incorrectly resulting in a condition where they could not finish the weld unless the dog was removed. The weld was subsequently finished without the dog in place without defects noted. ZPMC now does not remove the dogs until all welding is complete. As a preventative measure, ABF/CT have instituted a training program for both welders and grinders. This specific case of fit lug welding and grinding is one of the training subjects.

Submitted by:

Attachment(s): ABF-NPR-000198R00

Caltrans' comments:

Status: CLO

Date: 15-Apr-2009

The proposed resolution is acceptable. Training has been provided, and there have not been any recurrences of this issue. The Department concurs that Non-Conformance ZPMC-0201 is closed.

Submitted by: Wright, Doug

Date: 15-Apr-2009

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-000218**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 25-May-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0201**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: 04-Jan-2009**Description of Non-Conformance:**

It was observed by QA that ZPMC welding personnel welded East Shaft, Lift 1, Skin C, fit lug partial joint penetration welds out of sequence. The Partial Joint Penetration (PJP) weld connecting the fit-lug to the longitudinal stiffener was completed. The "dog" securing the fit-lug to diaphragm plate was removed, prior to welding the fit lug to diaphragm.

Contractor's proposal to correct the problem:

Remind ZPMC to follow the approved fit lug fabrication procedure and remove "dogs" only after weld completion.

Corrective action taken:

ZPMC has been following the approved fit lug fabrication procedure and removing "dogs" only after weld completion. All affected fit lug welds in East Tower, Lift 1 have been 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:**

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

Inspected By: Sinevod, Serge

Quality Assurance Inspector

Reviewed By: Wahbeh, Mazen

QA Reviewer