

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-000085**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 05-Mar-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0083**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: 77m Tower Mock-up
Procedural	Procedural	Descriptor:	Longitudinal Stiffener to Diaphragm Welds

Description of Non-Conformance:

ABF/ZPMC has produced welds in the Tower 77-m mock-up that do not meet the minimum requirements for mock-up fabrication as required by the Special Provisions, Section 10-1.59, "Fabrication/Erection Procedure and Mock-Ups", paragraph B.1. Weld cracks, as defined by AWS D1.5, are considered unsatisfactory regarding the fabrication of the tower mock-ups and cracks were found in the partial joint penetration welds at the stiffener to diaphragm connection (MUSA-SA95-04, MUSA-SA104-04, MUSA-SA104-14, MUSA-SA104-18, MUSA-SA104-63) and in the fillet weld at the stiffener fitting lug to diaphragm connection (MUSA-SA95-12). Weld joints MUSA-SA104-14, MUSA-SA104-18 and MUSA-SA95-04 had transverse indications

Applicable reference:

Special Provisions, Section 10-1.59, "Fabrication/Erection Procedure and Mock-Ups", paragraph B.1, Page 313. B.1

"All other mock-ups shall be defined as satisfactory when, either before or after repair as permitted herein, the mock-ups are free of defects as defined in the special provisions including all relevant sections of AWS D1.5 and demonstrate a procedure that will meet the requirements of the special provisions as determined by the Engineer. Minor weld repairs will be allowed except for the following circumstances:

1. A crack, as defined by AWS D1.5, is found"

Who discovered the problem: Larry Viars, Quality Assurance Inspector,

Name of individual from Contractor notified:

Time and method of notification:

Name of Caltrans Engineer notified: Ching Chao, Structure Representative

Time and method of notification: 3/5/08; Verbal Notification

QC Inspector's Name: A Quality Control Inspector was not present at the time of the testing.

Was QC Inspector aware of the problem:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

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: Wahbeh,Mazen

Quality Assurance Inspector

Reviewed By: Wahbeh,Mazen

QA Reviewer



DEPARTMENT OF TRANSPORTATION
666 Feng Bin Road Room 708, Changxing Island
Shanghai 201913 PR China
Tel: 021-56856666 ext 207061 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: American Bridge /Fluor Enterprises, a JV
375 Burma Road
Oakland CA 94607

Date: 09-Mar-2008

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

Attention: Dave Williams Consultant

Job Name: SAS Superstructure

Document No: 05.03.06-000050

Subject: NCR No. ZPMC-0083

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

Non-Conformance with quality control procedures. Please take appropriate corrective action. Recurrence may require further administrative action.

Non-Conformance with quality control. Records indicate that this is a recurring issue and constitutes a systematic problem in quality control. Within fourteen (14) days, please submit a plan to correct the deficiency.

Material or workmanship is not in compliance with contract requirements.

Enclosed please find the following items:

NCR No: ZPMC-0083

Remarks:

Please refer to the attachment for details.

Transmitted by: Ching Chao

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Mark Woods, Doug Coe, Jason Tom, Dave Williams, Contract Files, Kannu Balan, Chin

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000050

Subject: NCR No. ZPMC-0083

Dated: 25-Aug-2008

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000106 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: Fabrication procedure has been modified and partial mock-ups have been fabricated successfully
Cracks determined to be caused by a combination of welder technique, pre-heat and interpass temperatures, and weld sequencing.
Fabrication procedure has been modified and partial mock-ups have been fabricated successfully.

Submitted by: Mackey, Kim
Attachment(s): ABF-NPR-000106R00

Caltrans' comments:

Status: CLO

Date: 25-Dec-2008

Per State Letter 05.03.01-003087 dated December 8, 2008, the 77m and 89m Tower Section Mock-ups were successfully completed. The Department concurs that Non-Conformance ZPMC-0083 is closed.

As noted in ABF-CAL-LTR-000758, the Department understands that the appropriate fabrication plans will be modified in accordance with Special Provision Section 10-1.59, "Steel Structures," subsection "Working Drawings" through the FCN process.

Submitted by: Wright, Doug
Attachment(s):

Date: 30-Dec-2008

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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-000140**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 23-Dec-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0083**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: 05-Mar-2008**Description of Non-Conformance:**

ABF/ZPMC has produced welds in the Tower 77-m mock-up that do not meet the minimum requirements for mock-up fabrication as required by the Special Provisions, Section 10-1.59, "Fabrication/Erection Procedure and Mock-Ups", paragraph B.1. Weld cracks, as defined by AWS D1.5, are considered unsatisfactory regarding the fabrication of the tower mock-ups and cracks were found in the partial joint penetration welds at the stiffener to diaphragm connection (MUSA-SA95-04, MUSA-SA104-04, MUSA-SA104-14, MUSA-SA104-18, MUSA-SA104-63) and in the fillet weld at the stiffener fitting lug to diaphragm connection (MUSA-SA95-12). Weld joints MUSA-SA104-14, MUSA-SA104-18 and MUSA-SA95-04 had transverse indications

Contractor's proposal to correct the problem:

Cracks determined to be caused by a combination of welder technique, pre-heat and interpass temperatures, and weld sequencing. Fabrication procedure has been modified and partial mock-ups have been fabricated successfully.

Corrective action taken:

Fabrication procedure has been modified and partial mock-ups have been fabricated successfully. Letter No. 05.03.01-003087 concluded the successful completion of 77m and 89m mock-ups.

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

Inspected By: Sinevod, Serge

Quality Assurance Inspector

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Reviewed By: Sinevod,Serge

QA Reviewer