

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-000184**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 29-Aug-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0167**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Tower Double Diaphragm
Procedural	Procedural	Descriptor:	Tower Double Diaphragm, NSD1-SA27B/B

Reference Description: AWS D1.5 2002**Description of Non-Conformance:**

Caltrans Quality Assurance(QA)Inspector observed ZPMC personnel welding without sufficient base metal preheat on Partial Joint Penetration (PJP) root pass on a tower double diaphragm identified as NSD1-SA27B/B, weld joint number 12. The applicable Welding Procedure Specification (WPS) requires a base metal preheat temperature of 180° Celsius. The base metal temperature was below the required temperature verified by use of a 180° Celsius temperature indicating crayon.

Applicable reference:

AWS D1.5 2002, Section 1.9 "All production shall be performed in conformance with the provisions of an approved Welding Procedure Specification (WPS), which is based upon successful recorded in a Procedure Qualification test results as per Record (PQR)..."; ZPMC Welding Procedure Specification - WPS-B-T-3312-TC-P5

Who discovered the problem: Joselito Lizardo, Quality Assurance Inspector**Name of individual from Contractor notified:** Kong Xian Hui**Time and method of notification:** 8/29/2008; 1030; Verbal**Name of Caltrans Engineer notified:** Scott Kennedy, Structures Construction**Time and method of notification:** 8/29/2008; 1300; Verbal**QC Inspector's Name:** Yu Dong Ping, ZPMC Quality Control Inspector**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 Ryan Smith, who represents the Office of Structural Materials for your project.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Inspected By: Ishibashi,Josh

SMR

Reviewed By: Ishibashi,Josh

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: 09-Sep-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: 05.03.06-000156

Subject: NCR No. ZPMC-0167

Reference Description: Insufficient Preheat / Double Diaphragm

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:

Caltrans Quality Assurance(QA)Inspector observed ZPMC personnel welding without sufficient base metal preheat on Partial Joint Penetration (PJP) root pass on a tower double diaphragm identified as NSD1-SA27B/B, weld joint number 12. The applicable Welding Procedure Specification (WPS) requires a base metal preheat temperature of 180° Celsius. The base metal temperature was below the required temperature verified by use of a 180° Celsius temperature indicating crayon.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance including documentation that the weld placed is in compliance with the contract requirements. In addition to the material/workmanship non-conformance, propose a resolution that addresses the apparent failure of Quality Control to identify the non-conformance with the Welding Procedure Specification (WPS). Provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences.

Transmitted by: Scott Kennedy Sr. Bridge Engineer

Attachments: ZPMC-0167

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: 05.03.06-000156

Subject: NCR No. ZPMC-0167

Dated: 11-Sep-2008

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000154 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: ABF has notified ZPMC QA/QC and Production as well as ABF on site inspectors to verify pre-heat and interpass temperatures prior to and during welding processes.

ZPMC performed welding of a PJP root pass without sufficient pre-heat, contrary to WPS requirements. ABF has notified ZPMC QA/QC and Production as well as ABF on site inspectors to verify pre-heat and interpass temperatures prior to and during welding processes.

Submitted by:

Attachment(s): ABF-NPR-000154R00

Caltrans' comments:

Status: CLO

Date: 01-Oct-2008

The proposed resolution is acceptable. The weld in question has been accepted by NDT, and lack of preheat has not been observed since. The Department concurs that Non-Conformance ZPMC-0167 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-000090**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 24-Sep-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0167**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: 29-Aug-2008**Description of Non-Conformance:**

Caltrans Quality Assurance(QA)Inspector observed ZPMC personnel welding without sufficient base metal preheat on Partial Joint Penetration (PJP) root pass on a tower double diaphragm identified as NSD1-SA27B/B, weld joint number 12. The applicable Welding Procedure Specification (WPS) requires a base metal preheat temperature of 180° Celsius. The base metal temperature was below the required temperature verified by use of a 180° Celsius temperature indicating crayon.

Contractor's proposal to correct the problem:

METS-OSM will track this issue as a Quality Management Issue and does not request a response from the Contractor at this time. If this issue becomes systemic, METS will elevate this issue to second-tier and request a response from the Contractor.

Corrective action taken:

N/A

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: Ishibashi, Josh

Quality Assurance Inspector

Reviewed By: Smith, Ryan

QA Reviewer