

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



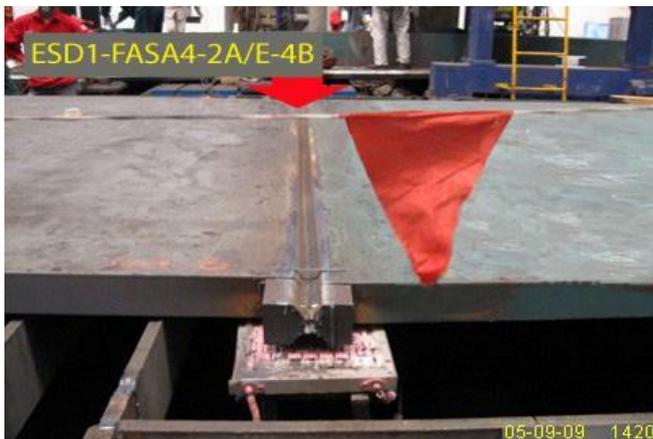
Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-000263**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 09-May-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0237**Type of problem:**

<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b> East Shaft, Lift 4, Skin A
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b> East Shaft, Lift 4, Skin A, unacceptable WPS	

**Reference Description:** Welding East Shaft, Lift 4, Skin A butt joints using unacceptable WPS**Description of Non-Conformance:**

QA randomly observed that ZPMC welder, ID 058792, was utilizing ZPMC Flux Cored Arc Welding WPS: WPS-B-T-4231-B-U3-F, to weld A709M grade HPS 485W and 345 steel plates on East Shaft, Lift 4, Skin Plate A at Weld Joint FASA4-2A/E-4B. WPS-B-T-4231-B-U3-F allows for a maximum material thickness of 75 mm. The material thickness welded was 90 mm. Also, as discussed with members of ABFJV and ZPMC on May 7, 2009, a PQR must be completed for welding A709M grade HPS 485W and 345 steel plates utilizing submerged arc welding (SAW) with a lower-strength filler metal.

**Applicable reference:**

Welding Procedure WPS-B-T-4231-B-U3-F allows a maximum material thickness of 70 mm.

AWS D1.5-2002 Section 5.2: Each Contractor shall conduct tests to qualify or verify WPSs as required by this code.

Special Provisions Section 10-1.59: Only submerged arc and shielded metal arc welding are pre-approved for welding HPS 485W steel. Filler metals for welds between Grade HPS 485W and all other grades shall match the lower strength of the materials joined, unless otherwise noted on the plans.

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Who discovered the problem:** Amit Kishor Juvekar  
**Name of individual from Contractor notified:** Steve Lawton  
**Time and method of notification:** 5-9-09, 14:00; Verbal  
**Name of Caltrans Engineer notified:** Scott Kennedy  
**Time and method of notification:** 5-10-09, 14:00; E-mail  
**QC Inspector's Name:** Yun Xiao  
**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 Serge Sinevod, 134-8257-0045, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Sinevod,Serge	ASMR
<b>Reviewed By:</b>	Wahbeh,Mazen	SMR

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## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000229

**Subject:** NCR No. ZPMC-0237

**Dated:** 20-May-2009

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000233 Rev: 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC will completely remove the weld and re-weld using an approved WPS.  
ZPMC requests closure of this NCR.

ZPMC will completely remove the weld and re-weld using an approved WPS.  
ZPMC requests closure of this NCR.

### Submitted by:

**Attachment(s):** ABF-NPR-000233R00

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### Caltrans' comments:

**Status:** CLO

**Date:** 25-May-2009

The proposed resolution is acceptable. The non-conforming weld has been completely removed. The Department concurs that Non-Conformance ZPMC-0237 is closed.

**Submitted by:** Wright, Doug

**Date:** 25-May-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-000220**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 20-May-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0237**Type of problem:**

<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b>
<b>Procedural</b>	<b>Procedural</b>	<b>Descriptor:</b>	

**Date the Non-Conformance Report was written:** 09-May-2009**Description of Non-Conformance:**

QA randomly observed that ZPMC welder, ID 058792, was utilizing ZPMC Flux Cored Arc Welding WPS: WPS-B-T-4231-B-U3-F, to weld A709M grade HPS 485W and 345 steel plates on East Shaft, Lift 4, Skin Plate A at Weld Joint FASA4-2A/E-4B. WPS-B-T-4231-B-U3-F allows for a maximum material thickness of 75 mm. The material thickness welded was 90 mm. Also, as discussed with members of ABFJV and ZPMC on May 7, 2009, a PQR must be completed for welding A709M grade HPS 485W and 345 steel plates utilizing submerged arc welding (SAW) with a lower-strength filler metal.

**Contractor's proposal to correct the problem:**

Weld metal at weld joint FASA4-2A/E-4B will be removed.

**Corrective action taken:**

Weld at weld joint FASA4-2A/E-4B has been removed and rewelded using an approved Shielded Metal Arc Welding (SMAW) WPS.

**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