

**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 #: 04-0120F4  
 Cty: SF/ALA Rte: 80 PM: 13.2/13.9  
 File #: 69.25B

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

**Location:** Changxing Island, Shanghai, China

**Report No:** NCR-000887

**Prime Contractor:** American Bridge/Fluor Enterprises, a JV

**Date:** 05-Nov-2010

**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

**NCR #:** ZPMC-0849

### 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> DP3165-001
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

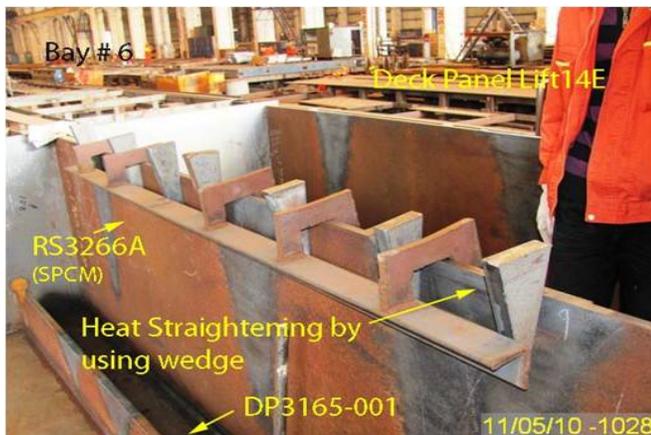
**Reference Description:** Heat Straightening without Engineer's Authorization

### Description of Non-Conformance:

During the Quality Assurance (QA) random in-process visual inspection of Orthotropic Box Girder (OBG) lift 14E Deck Panel, this QA inspector discovered the following issues:

- ZPMC personnel performed Heat Straightening of Lift 14E Deck Panel, utilizing HSR-1-9707.
- ZPMC deviated from the standard HSR-1 repair, by mounting a temporary fixture and driving unidentified steel wedges between the fixture and SPCM material.
- The SPCM steel plate is identified as RS3266A.
- The affected Deck Panel is identified as DP3165-001.
- The material is A709 Grade 345 Seismic Performance Critical Member (SPCM).
- OBG Deck Panel is located in the Bay 6.

Reference attached pics.

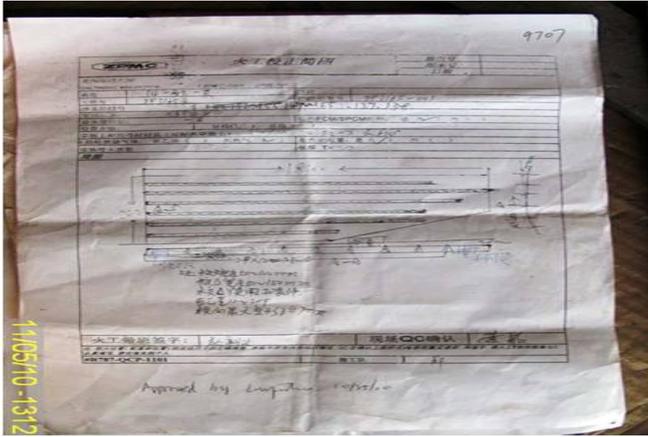


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# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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## Applicable reference:

AWS D1.5/2002 Section 3.7.3: "Members distorted by welding shall be heat straightened by mechanical means or by carefully supervised application of a limited amount of localized heat as approved by the engineer". Also "jacks shall be used in such a manner that all forces are applied passively."

**Who discovered the problem:** Dhanasingh Sukanthan

**Name of individual from Contractor notified:** Luo Lai Quan

**Time and method of notification:** 1030 hours, 11/5/10, Verbal

**Name of Caltrans Engineer notified:** Lorraine Woo

**Time and method of notification:** 1330 hours, 11/5/10, Email

**QC Inspector's Name:** Zhang Wei

**Was QC Inspector aware of the problem:** Yes No

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

NA

## 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.

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<b>Inspected By:</b>	Devey,Jim	SMR
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<b>Reviewed By:</b>	Wahbeh,Mazen	SMR
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**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:** 07-Nov-2010

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

**Dear:** Mr. Charles Kanapicki

**Job Name:** SAS Superstructure

**Attention:** Mr. Thomas Nilsson Project/Fabrication Manager

**Document No:** 05.03.06-000844

**Subject:** NCR No. ZPMC-0849

**Reference Description:** Heat Straightening without Engineer's Authorization

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:** OBG **Lift:** 14

**Remarks:**

- During the Quality Assurance (QA) random in-process visual inspection of Orthotropic Box Girder (OBG) lift 14E Deck Panel, Caltrans QA inspector discovered the following issues:
- ZPMC personnel performed Heat Straightening of Lift 14E Deck Panel, utilizing HSR-1-9707.
  - ZPMC deviated from the standard HSR-1 repair, by mounting a temporary fixture and driving unidentified steel wedges between the fixture and SPCM material.
  - The SPCM steel plate is identified as RS3266A.
  - The affected Deck Panel is identified as DP3165-001.
  - The material is A709 Grade 345 Seismic Performance Critical Member (SPCM).
  - OBG Deck Panel is located in the Bay 6.

**Action Required and/or Action Taken:**

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of the issue is expected within 7 days.

**Transmitted by:** Laraine Woo Transportation Engineer

**Attachments:** ZPMC-0849

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Contract Files, Ching Chao, Bill Casey

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Siegenthaler, Peter  
Resident Engineer

**Ref:** 05.03.06-000844

**Subject:** NCR No. ZPMC-0849

**Dated:** 11-Nov-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000833 Rev: 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** his NCR was not justified when issued. No mechanical means or jacks were used during the application of heat.

This NCR was not justified when issued. No mechanical means or jacks were used during the application of heat. The notes at the bottom of the HSR-1 referenced the additional measured used by ZPMC during heat straightening. A ZPMC QA Engineer arrived and explained this to the Department's representative at the time the issue occurred. Based on this NCR should be closed.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000833R00

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### Caltrans' comments:

**Status:** CLO

**Date:** 11-Nov-2010

The proposed resolution is acceptable. This NCR is closed.

**Submitted by:** Woo, Laraine

**Attachment(s):**

**Date:** 11-Nov-2010

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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, China**Report No:** NCS-000974**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 11-Nov-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0849**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:** 05-Nov-2010**Description of Non-Conformance:**

During the Quality Assurance (QA) random in-process visual inspection of Orthotropic Box Girder (OBG) lift 14E Deck Panel, this QA inspector discovered the following issues:

- ZPMC personnel performed Heat Straightening of Lift 14E Deck Panel, utilizing HSR-1-9707.
- ZPMC deviated from the standard HSR-1 repair, by mounting a temporary fixture and driving unidentified steel wedges between the fixture and SPCM material.
- The SPCM steel plate is identified as RS3266A.
- The affected Deck Panel is identified as DP3165-001.
- The material is A709 Grade 345 Seismic Performance Critical Member (SPCM).
- OBG Deck Panel is located in the Bay 6.

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

Contractor does not agree with the NCR and maintains that the heat straightening was not done using jacks or other non-conforming mechanical means. Clarify the issue to the QA Engineer and Caltrans representative.

**Corrective action taken:**

Contractor has not accepted the NCR. The issue has been clarified to the QA Engineer on the spot and also the Department's representative and the explanation has been accepted.

**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 Wahbeh, Mazen 818-292-0659, who represents the Office of Structural Materials for your project.

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# QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

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**Inspected By:** Ng,Michael

Quality Assurance Inspector

**Reviewed By:** Wahbeh,Mazen

QA Reviewer