

**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, P.R. China**Report No:** NCR-000636**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 16-Jan-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0609**Type of problem:****Welding****Concrete****Other****Welding****Curing****Procedural****Bridge No:** 34-0006**Joint fit-up****Coating****Other****Component:** Segment 7CE Deck Panel**Procedural****Procedural****Description:****Reference Description:** Freehand thermal cutting of 7CE Deck Panel without Engineer's approval**Description of Non-Conformance:**

During Caltrans Quality Assurance (QA) Inspection of OBG 7CE, Trial Assembly, this QA inspector discovered the following issue:

- ZPMC performed freehand thermal cutting of 4100mm in length without the Engineer's approval.
- The OBG segment is identified as 7CE.
- The deck plates are identified as DP494A and DP332A.
- Material thickness; 14mm.
- Access to the area being cut was not restricted due to cross sectional geometry and or position, in so far as mechanical guides could not be used.
- ZPMC QC and ABF Representatives were not present during the time of the thermal cutting.

**Applicable reference:**

AASHTO/AWS D1.5M/D1.5:2002:

Preparation of Base Metal: Section 3, Para. 3.2.2 Freehand thermal cutting shall be done only where approved by the Engineer.

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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ABF Free Hand Flame Cutting Procedure:

Scope: 2.1 This procedure outlines the technique and process for flame cutting of material up to 25mm in thickness and up to 300mm in length when mechanical guides are not practical.

**Who discovered the problem:** Mike Hasler

**Name of individual from Contractor notified:** Peter Shaw

**Time and method of notification:** 01/16/10, 2100, Verbal

**Name of Caltrans Engineer notified:** Bill Howe, Ching Chao

**Time and method of notification:** 01/17/10, 2100, Email

**QC Inspector's Name:** Zhang Xia Ming

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

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

N/A

**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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Tsang, Eric	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 **Date:** 20-Jan-2010  
 375 BURMA ROAD  
 OAKLAND CA 95607 **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:** 05.03.06-000602  
**Subject:** NCR No. ZPMC-0609

**Reference Description:** Freehand thermal cutting of 7CE Deck Panel without Engineer's approval

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:** 07

**Remarks:**

- During Caltrans Quality Assurance (QA) Inspection of OBG 7CE, Trial Assembly, this QA inspector discovered the following issue:
- ZPMC performed freehand thermal cutting of 4100mm in length without the Engineer's approval.
  - The OBG segment is identified as 7CE.
  - The deck plates are identified as DP494A and DP332A.
  - Material thickness; 14mm.
  - Access to the area being cut was not restricted due to cross sectional geometry and or position, in so far as mechanical guides could not be used.
  - ZPMC QC and ABF Representatives were not present during the time of the thermal cutting.

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

Get a procedure approved for subsequent cutting. Confirm the cutting is within the specified tolerance. A response for the resolution of this issue is expected within 7 days.

**Transmitted by:** Bill Howe Sr. Transportation Engineer

**Attachments:** ZPMC-0609

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

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000602

**Subject:** NCR No. ZPMC-0609

**Dated:** 29-Jan-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000547 Rev: 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** In cases where the material is less than 25 mm thick Engineer approval is not needed. In this case the material was 14mm thick.

CT approved with notes ABF-SUB-0872R01 which is a freehand thermal cutting procedure. In cases where the material is less than 25 mm thick Engineer approval is not needed. In this case the material was 14mm thick. This NCR should not have been issued and should be closed.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000547R00;

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### Caltrans' comments:

**Status:** CLO

**Date:** 02-Feb-2010

The reason this NCR is closed is because the ensuing repair is acceptable. However, the practice of free hand cutting when a track torch is easily installed (such as this case) is not acceptable.

**Submitted by:** Howe, Bill

**Date:** 02-Feb-2010

**Attachment(s):**

**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program**

333 Burma Rd.  
Oakland, CA 94607  
(510) 622-5660, (510) 286-0550 fax



*Flex your power  
Be energy efficient!*

February 12, 2009

Contract No. 04-0120F4  
04-SF-80-13.2 / 13.9  
Self-Anchored Suspension Bridge  
Letter No. 05.03.01-003475

Michael Flowers  
Project Executive  
American Bridge/Fluor, A JV  
375 Burma Road  
Oakland, CA 94607

Dear Michael Flowers,

**Submittal 872, Rev. 1 - Freehand Flame Cutting Shop Procedure**

The Department has completed review of Submittal ABF-SUB-000872R01, "Freehand Flame Cutting Shop Procedure - ZPMC Fabrication Procedure," dated January 27, 2009. The submittal is "Approved as Noted," as shown on the attached drawings and as outlined by the following comments:

**CATEGORY A:**

1. Specify dimensions for the limits of this flame cutting procedure.

**CATEGORY B:**

1. Submit, for the Engineer's approval, flame cutting of materials greater than 25mm.

If you have any questions, please contact Gary Lai in the Working Drawing Campus.

Sincerely,

**<<< ORIGINAL SIGNED >>>**

GARY PURSELL  
Resident Engineer

Attachment

cc: Rick Morrow  
Brian Boal  
Stanley Ku  
Mazen Wahbeh  
Keith Devonport  
Jason Tom  
file: 05.03.01, 55.0872



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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, P.R. China**Report No:** NCS-000502**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 03-Feb-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0609**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:** 16-Jan-2010**Description of Non-Conformance:**

During Caltrans Quality Assurance (QA) Inspection of OBG 7CE, Trial Assembly, this QA inspector discovered the following issue:

- ZPMC performed freehand thermal cutting of 4100mm in length without the Engineer's approval.
- The OBG segment is identified as 7CE.
- The deck plates are identified as DP494A and DP332A.
- Material thickness; 14mm.
- Access to the area being cut was not restricted due to cross sectional geometry and or position, in so far as mechanical guides could not be used.
- ZPMC QC and ABF Representatives were not present during the time of the thermal cutting.

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

Grind area to meet the joint requirements of the approved WPS.

**Corrective action taken:**

ZPMC Personnel has ground the area in question and Segment 7CE has been moved into the Trail Assembly are for fit-up.

**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 Jim Simonis: 152.1675.3703, who represents the Office of Structural Materials for your project.

**Inspected By:** Simonis, Jim

Quality Assurance Inspector

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# QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

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**Reviewed By:** Wahbeh,Mazen

QA Reviewer