

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-000178**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 15-Aug-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0161**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: EP-204
Procedural	Procedural	Descriptor:	OBG Edge Plate

Reference Description: Unapproved thermal cutting methods for EP-204**Description of Non-Conformance:**

The Contractor used unapproved thermal cutting methods. The Contractor used freehand thermal cutting on stiffeners on OBG Edge Plate EP-204.

Applicable reference:

AWS D1.5, Sec. 3.2.2: "Freehand thermal cutting shall be done only where approved by the Engineer."

Who discovered the problem: Caltrans Quality Assurance Taskleader, Albert Carreon**Name of individual from Contractor notified:** ABFJV QC Kevin Dye**Time and method of notification:** 08-15-08, 2100 hrs, Verbal**Name of Caltrans Engineer notified:** Kannu Balan**Time and method of notification:** 22-Aug-08, E-mail**QC Inspector's Name:** ZPMC CWI – Fu Yuhong**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 Abifhram Velasco, who represents the Office of Structural Materials for your project.

Inspected By: Velasco, Abifhram

SMR

Reviewed By: Velasco, Abifhram

SMR



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
333 Burma Road
Oakland CA 94607
Tel: 510-622-5151 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 25-Aug-2008

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

Dear: Mr. Charles Kanapicki

Job Name: SAS Superstructure

Attention: Mr. Charles Kanapicki Quality Control Manager

Document No: 05.03.06-000152

Subject: NCR No. ZPMC-0161

Reference Description: Unapproved thermal cutting methods for EP-20A

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:** 04

Remarks:

The Contractor used unapproved thermal cutting methods. The Contractor used freehand thermal cutting on stiffeners on OBG Edge Plate EP-20A

Note: Typo in the NCR, correct plate number is EP-20A

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformation and the steps taken by the Quality Control Manager to prevent future occurrences.

Transmitted by: Kannu Balan Sr. Engineer

Attachments: ZPMC-0161

cc: Rick Morrow, Gary Pursell, Doug Coe, Kannu Balan, 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: 05.03.06-000152

Subject: NCR No. ZPMC-0161

Dated: 11-Sep-2008

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000149 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC is drafting an RFI requesting the use of free hand cutting in areas not accessible for mechanical cutting.

ZPMC performed free hand cutting on as it was not practical to set up mechanical devices to cut these pieces. ABF reminded ZPMC that free hand cutting is not unacceptable, however, free hand cutting must be approved by the Engineer. ZPMC is drafting an RFI requesting the use of free hand cutting in areas not accessible for mechanical cutting as long as the profile of cut is acceptable and the CT inspector is notified verbally prior to cutting.

Submitted by:

Attachment(s): ABF-NPR-000149R00

Caltrans' comments:

Status: REJ

Date: 01-Oct-2008

The proposed resolution is not acceptable. The Request for Information (RFI) mentioned in this proposed resolution has not been received. Please re-submit the proposed resolution when the RFI to request the use of free hand thermal cutting has been resolved. The Department will review the Contractor's proposal to close Non-Conformance ZPMC-0161 at that time.

Submitted by: Wright, Doug

Date: 01-Oct-2008

Attachment(s):

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000152

Subject: NCR No. ZPMC-0161

Dated: 19-Dec-2008

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000149 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: ZPMC will notify the onsite engineers representative prior to performing free-hand cutting.

ZPMC will notify the onsite engineers representative prior to performing free-hand cutting. Freehand cutting will be performed in accordance with the attached procedure. The attached procedure is submitted for information only.

Submitted by:

Attachment(s): ABF-NPR-000149R01;

Caltrans' comments:

Status: REJ

Date: 22-Dec-2008

The proposed resolution is not acceptable. Freehand thermal cutting shall only be done where the Engineer has given prior approval in writing.

The freehand flame cutting procedure attached to this NPR was submitted in ABF-SUB-000872, and returned for correction as detailed in State letter 5.03.01-2934. Revisions to fabrication procedures should be addressed through a formal submittal, and not through a proposed resolution to an NCR.

Submitted by: Wright, Doug

Date: 23-Dec-2008

Attachment(s):

Freehand Flame Cutting.

Freehand flame cutting procedure:

Freehand flame cutting procedure may be performed in areas where it is impractical to use machine flame cutting or a mechanical guide. Freehand flame cutting should follow this procedure unless otherwise approved by Engineer.

1. Mark the cutting line on steel plate.
2. Carefully freehand flame cut to approximately 3mm above the cutting line.
3. Grind the remaining 3mm to the cutting line.
4. Occasional notches or gouges deeper than the cutting line, which are not subsequently welded, should be removed by fairing to the material edge with a slope not steep than 1:10 and with grinding marks parallel to the material surfaces. The repair should not remove more than 2% of the nominal section.
5. Maximum roughness for the flame cut surface should meet the requirements in AWS D1.5.
6. Sharp corners that are not to be incorporated into a weld shall be removed by chamfering the edge.

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000152

Subject: NCR No. ZPMC-0161

Dated: 02-Feb-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000149 Rev: 02

Contractor's Proposed Resolution:

Reference Resolution: ZPMC will notify the onsite engineers prior to freehand flame cutting materials over 25mm.

ZPMC will notify the onsite engineers prior to freehand flame cutting materials over 25mm. Materials less than or equal to 25mm will be performed on a pre-approved basis in accordance with the attached procedure. ZPMC requests closure of this NCR.

Submitted by:

Attachment(s): ; ABF-NPR-000149R02

Caltrans' comments:

Status: CLO

Date: 17-Feb-2009

The proposed resolution is acceptable. The freehand flame cutting procedure was submitted as part of ABF submittal 872R01, and was approved as noted in State letter 3475. The Department concurs that Non-Conformance ZPMC-0161 is closed.

Flame cutting of materials greater than 25mm in thickness requires Engineer approval prior to cutting.

Submitted by: Wright, Doug

Date: 17-Feb-2009

Attachment(s):

Subject: Free Hand Flame Cutting Procedure

1.0 **Purpose**

- 1.1 The purpose of this procedure is to request Engineer's approval for flame cutting when mechanically guided flame cutting is not practical due to accessibility, cross sectional geometry and or position.

2.0 **Scope**

- 2.1 This procedure outlines the technique and process for flame cutting of materials 25mm and less when mechanical guides are not available.
- 2.2 Flame cutting of materials greater than 25mm shall require notification of the Engineer prior to cutting.

3.0 **Procedure**

- 3.1 Mark a cutting line on the item to be cut.
- 3.2 Protect surrounding materials with cover plates or suitable nonflammable material. Or remove surrounding material that may be damaged.
- 3.3 Carefully cut to approximately 3mm above the cutting line. If possible, the use of a cutting guide such as a piece of angle iron, flat bar or other template shall be used to guide the torch tip in a straight line while cutting.
- 3.4 Grind the remaining 3mm to the cutting line. Ground edges shall be inspected for discontinuities per AWS D1.5 Section 3.2.3. All repairs shall be per AWS D1.5 Section 3.2.3.
- 3.5 Occasional notches of gouges deeper than the cutting line in the material edges, which are not subsequently welded, should be removed by fairing to the material edge with a slope not steeper than 1 : 10 and with grinding marks parallel to the material surfaces. The repair should not remove more than 2% of the nominal section.
- 3.6 Maximum roughness for the flame cut surface should meet the requirements in AWS D1.5 Section 3.2.3.
- 3.7 Sharp corners that are not to be incorporated into a weld shall be removed by chamfering the edge.

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 #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, PRC**Report No:** NCS-000192**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 23-Feb-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0161**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: 15-Aug-2008**Description of Non-Conformance:**

The Contractor used unapproved thermal cutting methods. The Contractor used freehand thermal cutting on stiffeners on OBG Edge Plate EP-204.

Contractor's proposal to correct the problem:

A "Free Hand Flame Cutting Procedure" (submittal 872R01) was reviewed and approved by Caltrans. The work performed on the stiffeners are following this approved procedure.

Corrective action taken:

The contractor has submitted a "Free Hand Flame Cutting Procedure" (submittal 872R01) for Caltrans review.

The submittal was approved by Caltrans. The work performed on the stiffeners followed this approved procedure. The work 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 Eric Tsang, (+86) 1500.042.2372, who represents the Office of Structural Materials for your project.

Inspected By: Tsang, Eric **Quality Assurance Inspector****Reviewed By:** Wahbeh, Mazen **QA Reviewer**