

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, China**Report No:** NCR-000857**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 06-Oct-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0819**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: CB18 SA3077A
Procedural	Procedural	Description:	

Reference Description: Base Metal Repair and inadequate preheat on CB18 Anchor Seat Plates**Description of Non-Conformance:**

During Quality Assurance random in-process observations of the fabrication of OBG Cross Beam(CB) CB18 Tie Down Seat SA3077A, this Quality Assurance Inspector (QA) discovered the following issue:

- ZPMC Welding personnel performing base metal repair (BMR) on the top bearing plate without the Engineer's approval.
- Base metal depth of excavation, as measured by this QA is approximately 10 mm.
- Additionally, welding was being performed without sufficient preheat.
- This QA Inspector observed a 100 degree Celsius Tempilstik temperature indicator mark applied to the adjacent base material within approximately 30mm from the point of welding did not melt.
- As per the applicable WPS No: 345-SMAW-1G (1F) Repair, required min temperature is 200 degree Celsius.
- The welding was being performed using Shielded Metal Arc Welding (SMAW) in the flat (1G) position.
- The Top Bearing plate is identified as X3734A.
- The nearest weld is identified as SA3077-008-001.
- The Y location is approximately 25 mm from the above mentioned weld toe.
- The Tie Down Seat Bearing plate's material thickness is 100 mm.
- CB18 Tie Down Seat SA3077A is located in the Sub assembly Bay#7.

For additional information, please see the attached pictures below.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

ZPMC Approved Welding Quality Control Plan, Section 9.2.1.2: "Prior approval of the Engineer shall be obtained for repairs to base metal...."

AWS D1.5 2002-Section 3.7.4.- "Prior approval of the engineer shall be obtained for repairs to base metal (other than those required by 3.2), repair of major or delayed cracks, repairs to ESW and EGW welds with internal defects, or for a revised design to compensate for defects."

Welding Procedure Specification WPS-345-SMAW-1G (1F) Repair, designated as the applicable WPS by ZPMC QC, requires a minimum preheat temperature of 200° Celsius.

AWS D1.5 (2002), Section 4.2.7 requires the base metal material to be at or above the specified minimum temperature for a distance equal to the thickness of the part being welded, but not less than 75mm in all directions from the point of welding.

Special Provisions Section 8-3; "Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents."

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Who discovered the problem: Surendra Prabhu
Name of individual from Contractor notified: Mr. Liu Hua Jie
Time and method of notification: 1415 hours, 10/06/10, Verbal
Name of Caltrans Engineer notified: Laraine Woo
Time and method of notification: 10:30_10/7/10_Email
QC Inspector's Name: Mr. Cui jun jie /Mr. Xu xian ping
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.

Inspected By:	Devey,Jim	SMR
Reviewed By:	Wahbeh,Mazen	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: 07-Oct-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: 05.03.06-000814

Subject: NCR No. ZPMC-0819

Reference Description: Base Metal Repair and inadequate preheat on CB18 Anchor Seat Plates

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: Xbeam **Lift:**

Remarks:

- During Quality Assurance random in-process observations of the fabrication of OBG Cross Beam(CB) CB18 Tie Down Seat SA3077A, Caltrans Quality Assurance Inspector (QA) discovered the following issue:
- ZPMC Welding personnel performing base metal repair (BMR) on the top bearing plate without the Engineer's approval.
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 - As per the applicable WPS No: 345-SMAW-1G (1F) Repair, required min temperature is 200 degree Celsius.
 - The welding was being performed using Shielded Metal Arc Welding (SMAW) in the flat (1G) position.
 - The Top Bearing plate is identified as X3734A.
 - The nearest weld is identified as SA3077-008-001.
 - The Y location is approximately 25 mm from the above mentioned weld toe.
 - The Tie Down Seat Bearing plate's material thickness is 100 mm.
 - CB18 Tie Down Seat SA3077A is located in the Sub assembly Bay#7.

Action Required and/or Action Taken:

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

Transmitted by: Laraine Woo Transportation Engineer
Attachments: ZPMC-0819

NCT

(Continued Page 2 of 2)

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, 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: 05.03.06-000814

Subject: NCR No. ZPMC-0819

Dated: 01-Nov-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000827 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC Production acknowledges that the temperature was not sufficient, in order to resolve this and show the weld is acceptable ZPMC is providing NDT of the weld.

ZPMC has discussed this issue with the Production personnel to reinforce the importance of maintaining the correct preheat when welding. ZPMC Production acknowledges that the temperature was not sufficient, in order to resolve this and show the weld is acceptable ZPMC is providing NDT of the weld. Previous to this NCR, ZPMC had not had any NCRs for insufficient preheat in many months, this has been turned into an internal NCR to notify all the work crews about this and prevent future occurrences. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000827R00;

Caltrans' comments:

Status: CLO

Date: 01-Nov-2010

The weld has been accepted with NDT verification. This NCR is closed.

Submitted by: Woo, Laraine

Date: 01-Nov-2010

Attachment(s):



No. B-924

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-11-01

REGARDING: NCR-000857(ZPMC-0819)

ZPMC acknowledged this problem and has issued an internal NCR. ZPMC is providing the NDT record to show the acceptance of this weld. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000857(ZPMC-0819)

B787-MT-31785

A handwritten signature in black ink, appearing to be "Jen W", is written over the attachment list.

11/1/2010

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

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, China

Report No: NCR-000857

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 06-Oct-2010

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

NCR #: ZPMC-0819

Type of problem:

Welding Concrete Other

Welding Curing Procedural

Joint fit-up Coating Other

Procedural Procedural Description:

Bridge No: 34-0006

Component: CB18 SA3077A

Reference Description: Base Metal Repair and inadequate preheat on CB18 Anchor Seat Plates

Description of Non-Conformance:

-Additionally, welding was being performed without sufficient preheat.

-This QA Inspector observed a 100 degree Celsius Tempilstik temperature indicator mark applied to the adjacent base material within approximately 30mm from the point of welding did not melt.

-As per the applicable WPS No: 345-SMAW-1G (1F) Repair, required min temperature is 200 degree Celsius.

-The welding was being performed using Shielded Metal Arc Welding (SMAW) in the flat (1G) position.

-The Top Bearing plate is identified as X3734A.

-Additionally, welding was being performed without sufficient preheat.

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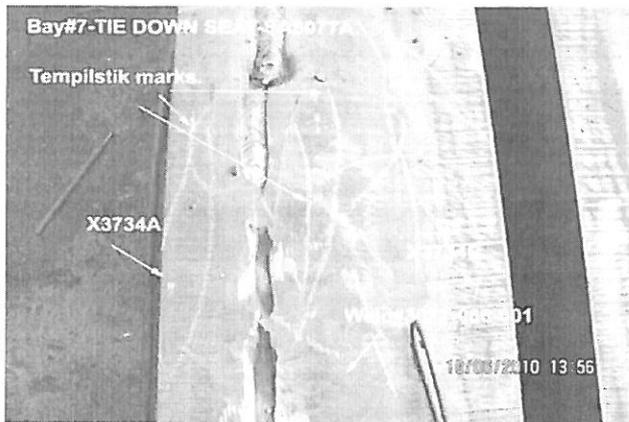
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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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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.

Inspected By:	Devey,Jim	SMR
Reviewed By:	Wahbeh,Mazen	SMR

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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-000870**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 01-Nov-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0819**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: 06-Oct-2010**Description of Non-Conformance:**

During Quality Assurance random in-process observations of the fabrication of OBG Cross Beam(CB) CB18 Tie Down Seat SA3077A, this Quality Assurance Inspector (QA) discovered the following issue:

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- The Y location is approximately 25 mm from the above mentioned weld toe.
- The Tie Down Seat Bearing plate's material thickness is 100 mm.
- CB18 Tie Down Seat SA3077A is located in the Sub assembly Bay#7.

For additional information, please see the attached pictures below.

Contractor's proposal to correct the problem:

Contractor will provide NDT report of the weld to prove the weld is still acceptable. Contractor will issue an internal NCR to notify the workers to avoid similar issue for future occurrences.

Corrective action taken:

Contractor provided NDT report to prove the weld is acceptable. Contractor also issued an internal NCR to the workers.

