

**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-000068**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 12-Feb-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0064**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> 77m Meter Mock-Up
<b>Procedural</b>	<b>Procedural</b>	<b>Descriptor:</b> Fitting lug to diaphragm.	

**Description of Non-Conformance:**

ABF/ZPMC has produced welds in the Tower 77-m mock-up that do not meet the minimum requirements for mock-up fabrication as required by the Special Provisions, Section 10-1.59, "Fabrication/Erection Procedure and Mock-Ups", paragraph B.1. Weld cracks, as defined by AWS D1.5, are considered unsatisfactory regarding the fabrication of the tower mock-ups and cracks were found at the junction of the fitting lug to the longitudinal stiffener.

**Applicable reference:**

Special Provisions, Section 10-1.59, "Fabrication/Erection Procedure and Mock-Ups", paragraph B.1, Page 313. B.1

"All other mock-ups shall be defined as satisfactory when, either before or after repair as permitted herein, the mock-ups are free of defects as defined in the special provisions including all relevant sections of AWS D1.5 and demonstrate a procedure that will meet the requirements of the special provisions as determined by the Engineer. Minor weld repairs will be allowed except for the following circumstances:

1. A crack, as defined by AWS D1.5, is found"

**Who discovered the problem:** Larry Viars and Alfredo Acuna, Quality Assurance Inspector

**Name of individual from Contractor notified:**

**Time and method of notification:**

**Name of Caltrans Engineer notified:** Tai Lin, Assistant Structure Representative

**Time and method of notification:** 02/08/08; 1130, Verbal

**QC Inspector's Name:** Shen Xue Jun, ZPMC Quality Control Inspector

**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

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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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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**Inspected By:** Wahbeh,Mazen

Quality Assurance Inspector

**Reviewed By:** Wahbeh,Mazen

QA Reviewer

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**DEPARTMENT OF TRANSPORTATION**  
666 Feng Bin Road Room 708, Changxing Island  
Shanghai 201913 PR China  
Tel: 021-56856666 ext 207061 Fax:

## **NON-CONFORMANCE REPORT TRANSMITTAL**

**To:** American Bridge/Fluor Enterprises, a JV  
375 Burma Road  
Oakland CA 94607

**Date:** 16-Feb-2008

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

**Attention:** Dave Williams          Consultant

**Job Name:** SAS Superstructure

**Document No:** 05.03.06-000035

**Subject:** NCR No. ZPMC-0064

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

Non-Conformance with quality control procedures. Please take appropriate corrective action. Recurrence may require further administrative action.

Non-Conformance with quality control. Records indicate that this is a recurring issue and constitutes a systematic problem in quality control. Within fourteen (14) days, please submit a plan to correct the deficiency.

Material or workmanship is not in compliance with contract requirements.

**Enclosed please find the following items:**

**NCR No:** ZPMC-0064

**Remarks:**

Please see attachment for details.

**Transmitted by:** Ching Chao

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Mark Woods, Doug Coe, Jason Tom, Dave Williams, Contract Files, Kannu Balan, Chin

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000035

**Subject:** NCR No. ZPMC-0064

**Dated:** 24-Apr-2008

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000026 Rev: 00

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**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC QC is requesting more specific location information or a withdrawal of the NCR

Please see the attached response from ZPMC. ABFJV has reviewed and concurs with this response. ABFJV believes, based on our understanding of the NCT process that this NCR was issued closed as the top (first) box on the NCT was checked. Please confirm.

**Submitted by:** Kanapicki, Charles

**Attachment(s):** ABF-NPR-000026R00;

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**Caltrans' comments:**

**Status:** CLO

**Date:** 25-Dec-2008

Per State Letter 05.03.01-003087 dated December 8, 2008, the 77m and 89m Tower Section Mock-ups were successfully completed. The Department concurs that Non-Conformance ZPMC-0064 is closed.

As noted in ABF-CAL-LTR-000758, the Department understands that the appropriate fabrication plans will be modified in accordance with Special Provision Section 10-1.59, "Steel Structures," subsection "Working Drawings" through the FCN process.

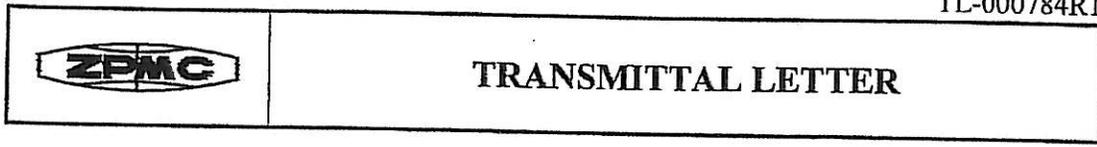
**Submitted by:** Wright, Doug

**Attachment(s):**

**Date:** 30-Dec-2008

NCT 35

TL-000784R1



PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 03/17/2008

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: LETTER OF RESPONSE

REQUEST FOR REVIEW & SUBMITTAL TO CALTRANS FOR APPROVAL.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE WITH ~~NO-CT-096, CT-086, CT-087, CT-093,~~ *CTK 4/23/08*  
CT-088
- (2) COPY OF ~~NCR-000019, NCR-000059, NCR-000064, NCR-000065, NCR-000068~~ *ZPMC 64*

*CVZ 4/23/08*

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:

*Ruby L*  
 \_\_\_\_\_  
 PLAN HOLDER

*3/17/08 1050*  
 \_\_\_\_\_  
 DATE

*AA/TV*  
 \_\_\_\_\_  
 COMPANY

\_\_\_\_\_  
 PHONE NO.

PLAN NUMBER: N/A  
 #R787-QCP-102



No. CT-88

## LETTER OF RESPONSE

**TO: American Bridge/Flour JV**

**DATE: 2007-2 -25**

**REGARDING: NCR-000068 (ZPMC-0064)**

ZPMC received CT NCR-000068 on 21-Feb-2008, it mentioned ZPMC produced welds in the Tower 77M mock-up that do not meet the minimum requirements for mock-up fabrication as required by Special Provision, "Weld cracks, as defined by AWS D1.5, are considered unsatisfactory regarding the fabrication of the tower mock-ups". And cracks were found at the junction of the fitting lug to the longitudinal stiffener. Due to not so much detail described about the nonconformance, ZPMC can't find out the actual nonconformance location and also didn't know whether the defective weld was in process or not, didn't know whether the welds had been checked visually by CWI before CT's inspection. So ZPMC can't accept this CT NCR-000064 until now and wants more information of the event to issue the internal NCR.

ZPMC requests Caltrans can withdraw NCR-000068 (ZPMC-0064).

**ATTACHMENT:**

**NCR-000068 (ZPMC-0064)**

*Lu Jianhua*  
*02/26/08*



**DEPARTMENT OF TRANSPORTATION**  
666 Feng Bin Road Room 708, Changxing Island  
Shanghai 201913 PR China  
Tel: 021-56856666 ext 207061 Fax:

### NON-CONFORMANCE REPORT TRANSMITTAL

**To:** American Bridge/Fluor Enterprises, a JV  
375 Burma Road  
Oakland CA 94607

**Date:** 16-Feb-2008

**Attention:** Dave Williams Consultant

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

**Subject:** NCR No. ZPMC-0064

**Job Name:** SAS Superstructure  
**Document No:** 05.03.06-000035

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Non-Conformance with quality control procedures. Please take appropriate corrective action. Recurrence may require further administrative action.
- Non-Conformance with quality control. Records indicate that this is a recurring issue and constitutes a systematic problem in quality control. Within fourteen (14) days, please submit a plan to correct the deficiency.
- Material or workmanship is not in compliance with contract requirements.

Enclosed please find the following items:

NCR No: ZPMC-0064

**Remarks:**

Please see attachment for details.

Transmitted by: Ching Chao

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Mark Woods, Doug Coe, Jason Tom, Dave Williams, Contract Files, Kannu Balan, Ct  
File: 05.03.06

02.02  
05.03.06-000035,NCT

Received  
NCT-000035 18 Feb 07 Page 1 of 1

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 DIVISION OF ENGINEERING SERVICES  
 Office of Structural Materials  
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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, PRC

**Report No:** NCR-000068

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

**Date:** 12-Feb-2008

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

**NCR #:** ZPMC-0064

**Type of problem:**

Welding  Concrete  Other   
 Welding  Curing  Procedural  **Bridge No:** 34-0006  
 Joint fit-up  Coating  Other  **Component:** 77m Meter Mock-Up  
 Procedural  Procedural  **Description:** Fitting lug to diaphragm.

**Description of Non-Conformance:**

ABF/ZPMC has produced welds in the Tower 77-m mock-up that do not meet the minimum requirements for mock-up fabrication as required by the Special Provisions, Section 10-1.59, "Fabrication/Erection Procedure and Mock-Ups", paragraph B.1. Weld cracks, as defined by AWS D1.5, are considered unsatisfactory regarding the fabrication of the tower mock-ups and cracks were found at the junction of the fitting lug to the longitudinal stiffener.

**Applicable reference:**

Special Provisions, Section 10-1.59, "Fabrication/Erection Procedure and Mock-Ups", paragraph B.1, Page 313.  
 B.1

"All other mock-ups shall be defined as satisfactory when, either before or after repair as permitted herein, the mock-ups are free of defects as defined in the special provisions including all relevant sections of AWS D1.5 and demonstrate a procedure that will meet the requirements of the special provisions as determined by the Engineer. Minor weld repairs will be allowed except for the following circumstances:

1. A crack, as defined by AWS D1.5, is found"

**Who discovered the problem:** Larry Viars and Alfredo Acuna, Quality Assurance Inspector

**Name of individual from Contractor notified:**

**Time and method of notification:**

**Name of Caltrans Engineer notified:** Tai Lin, Assistant Structure Representative

**Time and method of notification:** 02/08/08; 1130, Verbal

**QC Inspector's Name:** Shen Xue Jun, ZPMC Quality Control Inspector

**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

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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( Continued Page 2 of 2 )

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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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**Inspected By:** Wahbeh,Mazen

Quality Assurance Inspector

**Reviewed By:** Wahbeh,Mazen

QA Reviewer

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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-000136**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 23-Dec-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0064**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:** 12-Feb-2008**Description of Non-Conformance:**

ABF/ZPMC has produced welds in the Tower 77-m mock-up that do not meet the minimum requirements for mock-up fabrication as required by the Special Provisions, Section 10-1.59, "Fabrication/Erection Procedure and Mock-Ups", paragraph B.1. Weld cracks, as defined by AWS D1.5, are considered unsatisfactory regarding the fabrication of the tower mock-ups and cracks were found at the junction of the fitting lug to the longitudinal stiffener.

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

Cracks determined to be caused by a combination of welder technique, pre-heat and interpass temperatures, and weld sequencing. Fabrication procedure has been modified and partial mock-ups have been fabricated successfully.

**Corrective action taken:**

Fabrication procedure has been modified and partial mock-ups have been fabricated successfully. Letter No. 05.03.01-003087 concluded the successful completion of 77m and 89m mock-ups.

**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 Serge Sinevod, who represents the Office of Structural Materials for your project.

**Inspected By:** Sinevod, Serge

Quality Assurance Inspector

**Reviewed By:** Sinevod, Serge

QA Reviewer