

**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-000019**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 07-Jan-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0018**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> Incomplete Weekly Welding Reports	

**Description of Non-Conformance:**

The documentation the Contractor is submitting in Welding Reports does not allow the Department to verify that the Contractor has "corrected all rejectable deficiencies, and all repaired welds have been reexamined ... and found acceptable."

**Applicable reference:**

Special Provisions, Section 8-3 'Welding', subsection 'Welding Quality Control', page 154, 3rd paragraph, item C.

**Who discovered the problem:** Joshua Ishibashi**Name of individual from Contractor notified:** Steve Lawton**Time and method of notification:** 1300 1/8/08; Verbal**Name of Caltrans Engineer notified:** Jason Tom**Time and method of notification:** 1300 1/8/08; Verbal**QC Inspector's Name:** Nate Lindell**Was QC Inspector aware of the problem:** Yes No**Contractor's proposal to correct the problem:**

The Contractor produces a binder for each component that includes a comprehensive list of weld numbers with the dates inspected, repaired, and re-inspected. This binder resolves the non-conformance; however, the binders are not generated within 10 days following the performance on any welding.

**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 Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

**Inspected By:** Ishibashi,Josh

Quality Assurance Inspector

**Reviewed By:** Lowry,Patrick

QA Reviewer



**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:** 22-Jan-2008

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

**Attention:** Dave Williams          Consultant

**Job Name:** SAS Superstructure

**Document No:** 05.03.06-000004

**Subject:** NCR No. ZPMC-0018

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-0018

**Remarks:**

Please see attached NCR # ZPMC-0018.

**Transmitted by:** Ching Chao

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Mark Woods, Jason Tom, Dave Williams, Ching Chao, 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:** 05.03.06-000004

**Subject:** NCR No. ZPMC-0018

**Dated:** 04-Feb-2008

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000012 Rev: 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** The ABFJV Quality Control Department asserts that the requirements of the Contract Special Provisions, with regard to the Welding Report are being satisfied by ZPMC.

The non-conformance is described in the report as "The documentation the Contractor is submitting in Welding Reports does not allow the Department to verify that the Contractor has "corrected all rejectable deficiencies, and all repaired welds have been reexamined . . . and found acceptable." An additional comment in the report states that "The Contractor produces a binder for each component that includes a comprehensive list of weld numbers with the dates inspected, repaired, and re-inspected. This binder resolves the non-conformance; however, the binders are not generated within 10 days following the performance on any welding."

The ABFJV takes exception to the assertion that the Welding Reports, as submitted, constitute a non-conformance.

The following is stated in the Contract Special Provisions, Sections 8-3.01 Welding, page 154:

The following items shall be included in a Welding Report that is to be submitted to the Engineer within 10 days following the performance of any welding:

- A. Reports of all visual weld inspections and NDT.
- B. Radiographs and radiographic reports, and other required NDT reports.
- C. Documentation that the Contractor has evaluated all radiographs and other nondestructive tests and corrected all rejectable deficiencies, and all repaired welds have been reexamined by the required NDT and found acceptable.
- D. Reports of each incident of heat straightening
- E. Daily production log.
- F. Summarized log listing the rejected lengths of weld by welder, position, process, joint configuration, and piece number.

ZPMC is providing the required welding reports to the Contractor (ABFJV) on a weekly basis for convenience of record keeping, and these reports are subsequently submitted, by ABFJV, on that weekly basis to the State. There does not appear to be any exceptions to the reports with regard to items A, B, D, E, or F of the listed requirements. The State has cited paragraph "C" for the non-conformance. ABFJV makes note that the non-conformance citation in the report eliminated the words "reexamined by the required NDT and found acceptable" from the actual requirement as written in the Special Provisions

Fabrication sequencing can create the situation where the initial inspection, discovery of defects, repair and reexamination of the weld can encompass a time period greater than 7, or even 10 days. Therefore, it would not be expected that all of the documentation for a given repair, as required by the Contract, would necessarily be contained within one Welding Report. The information for work performed on repairs during a given report period is being documented on the specific CWR (Critical Weld Report), WRR (Weld Repair Report) and repair NDE Reports that are submitted in the Weekly Weld Report. All of the documentation, tracking and reporting is being performed by ZPMC in accordance with Section 7 of the approved ZPMC Welding Quality Control Plan (WQCP).

The "binders" referenced in the NCR Reports are being kept as an "in house" tool for ZPMC to organize the data package for welded components. These data packages will be used to produce the Certificate of Conformance for welded components prior to shipment or green tagging of components. There is no provision or requirement that these packages be submitted in the Welding Reports. Since these binders are not required to be submitted as part of the Welding Report, the provision that they be updated or generated within 10 days has no merit. ZPMC has always agreed to allow the State, in accordance with the Contract Special Provisions, access to review the ongoing documentation, records, logs and data sheets for the Project.

The ABFJV Quality Control Department asserts that the requirements of the Contract Special Provisions, with regard to the Welding Report are being satisfied by ZPMC.

The ABFJV acknowledges that a summation log of the status of each weld repair would be beneficial to all of the parties involved. Additionally, a spreadsheet format that would be administered by ZPMC, and available as read-only access to the State and the ABFJV for the tracking of the real time status of all weld repairs would be a benefit to all. However, the ABFJV does not believe that the production and submittal of either is in accordance with the requirements of the Contract Special Provisions. If the State is going to require the submittal of a repair summation log in the Welding Report and/or the creation and maintenance of a real time spreadsheet, then the ABFJV requests that the State issue a CCO to provide for this requirement.

## NCR PROPOSED RESOLUTION

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

**Dated:** 04-Feb-2008

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

**Attention:** Pursell, Gary  
Resident Engineer

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000012 Rev: 00

**Ref:** 05.03.06-000004

**Subject:** NCR No. ZPMC-0018

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If you need any more information, please call Jim Bowers at (510) 808-4600.

**Submitted by:** Flowers, Michael

**Attachment(s):** ABF-NPR-000012R00; ABF-CAL-LTR-000434

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**Caltrans' comments:**

**Status:** CLO

**Date:** 18-Jan-2009

This issue has been addressed through Contract Change Order #77. Also, Welding Reports have subsequently been submitted and approved by the Department. The Department concurs that Non-Conformance ZPMC-0018 is closed.

**Submitted by:** Wright, Doug

**Date:** 19-Jan-2009

**Attachment(s):** State Letter 05.03.01-001551w/signature; 05.03.01-001551-1 Attachment

**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!*

March 17, 2008

Contract No. 04-0120F4  
04-SF-80-13.2 / 13.9  
Self-Anchored Suspension Bridge  
Letter No. 05.03.01-001551

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

Dear Michael Flowers,

**NCR No. ZPMC-0018 - Weekly Welding Reports**

In response to ABF-CAL-LTR-000434, dated February 4, 2008, the Department and would like to address several issues as outlined below.

We continue to emphasize that the required welding reports under Section 8-3.01, "Welding," Special Provisions do not meet the contract requirements. The Special Provision states that, "*The Engineer will review the Welding Report to determine if the Contractor is in conformance with the Welding Quality Control Plan (WQCP).*" As currently submitted, the welding reports cannot be properly reviewed as they do not contain sufficient information for the Engineer to determine conformance with the WQCP. Additionally, these welding reports have not been submitted in a timely manner. Until this week, we had not received reports since January 7, 2008, which is not in compliance with the contract specifications.

The Contractor's letter states, "*There does not appear to be any exceptions to the report with regards to items A, B, D, E, or F of the ... requirements.*" We respectfully disagree. Quality Control (QC) information is routinely missing and/or untimely in its submission. Currently, the reports do not comply with the specifications or with the approved WQCP. The following issues require resolution at this time and if not addressed satisfactorily will result in the Department rescinding approval of Section 7 of the WQCP.

- 1) Demonstrate that the system can comprehensively "*track all welds, NDT, any required repairs, and re-inspection of non-conforming welds,*" as stated on page 153, Item L of the Special Provisions.
- 2) Provide the "Master Weld Tracking Log", "Daily Production Log" and "Weld Reject Log" in Excel format as submitted in the WQCP.
- 3) Explain how QC will provide QA with required QC inspection reports prior to requesting QA inspection.

- 4) Explain how the "Master Weld Tracking Log", "Daily Production Log" and "Weld Reject Log" are linked.
- 5) What documentation will be provided to the Department to verify that all welds have been inspected and accepted?

The above issues notwithstanding, the Department agrees that a summary log listing the full status of each weld would be beneficial to all parties. The Department plans to issue a CCO directing the recording and submittal of the information, formatted as shown in the attached spreadsheet. This documentation, provided in a timely manner, should resolve many of the outstanding welding report issues. Meanwhile, welding reports conforming to the contract requirements will continue to be required.

Sincerely,



GARY PURSELL  
Resident Engineer

Attachment

cc: Rick Morrow, Brian Boal  
file: 05.03.01



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 690 Walnut Ave. St. 150  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A


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**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION**


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**Location:** Changxing Island, Shanghai, China**Report No:** NCS-000179**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 22-Jan-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0018**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:** 07-Jan-2008**Description of Non-Conformance:**

The documentation the Contractor is submitting in Welding Reports does not allow the Department to verify that the Contractor has "corrected all rejectable deficiencies, and all repaired welds have been reexamined ... and found acceptable."

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

The non-conformance is described in the report as "The documentation the Contractor is submitting in Welding Reports does not allow the Department to verify that the Contractor has "corrected all rejectable deficiencies, and all repaired welds have been reexamined...and found acceptable." An additional comment in the report states that "The Contractor produces a binder for each component that includes a comprehensive list of weld numbers with the dates inspected, repaired, and re-inspected. This binder resolves the non-conformance; however, the binders are not generated within 10 days following the performance on any welding."

The ABFJV takes exception to the assertion that the Welding Reports, as submitted, constitute a non-conformance.

The following is stated in the Contract Special Provisions, Sections 8-3.01 Welding, page 154:

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- D. Reports of each incident of heat straightening

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## QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

( Continued Page 2 of 3 )

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E. Daily production log.

F. Summarized log listing the rejected lengths of weld by welder, position, process, joint configuration, and piece number.

ZPMC is providing the required welding reports to the Contractor (ABFJV) on a weekly basis for convenience of record keeping, and these reports are subsequently submitted, by ABFJV, on that weekly basis to the State. There does not appear to be any exceptions to the reports with regard to items A, B, D, E, or F of the listed requirements. The State has cited paragraph "C" for the non-conformance. ABFJV makes note that the non-conformance citation in the report eliminated the words "reexamined by the required NDT and found acceptable" from the actual requirement as written in the Special Provisions Fabrication sequencing can create the situation where the initial inspection, discovery of defects, repair and reexamination of the weld can encompass a time period greater than 7, or even 10 days. Therefore, it would not be expected that all of the documentation for a given repair, as required by the Contract, would necessarily be contained within one Welding Report. The information for work performed on repairs during a given report period is being documented on the specific CWR (Critical Weld Report), WRR (Weld Repair Report) and repair NDE Reports that are submitted in the Weekly Weld Report. All of the documentation, tracking and reporting is being performed by ZPMC in accordance with Section 7 of the approved ZPMC Welding Quality Control Plan (WQCP). The "binders" referenced in the NCR Reports are being kept as an "in house" tool for ZPMC to organize the data package for welded components. These data packages will be used to produce the Certificate of Conformance for welded components prior to shipment or green tagging of components. There is no provision or requirement that these packages be submitted in the Welding Reports. Since these binders are not required to be submitted as part of the Welding Report, the provision that they be updated or generated within 10 days has no merit. ZPMC has always agreed to allow the State, in accordance with the Contract Special Provisions, access to review the ongoing documentation, records, logs and data sheets for the Project.

The ABFJV Quality Control Department asserts that the requirements of the Contract Special Provisions, with regard to the Welding Report are being satisfied by ZPMC.

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**Corrective action taken:**

This issue has been addressed through Contract Change Order (CCO) 77. Welding Reports have subsequently been submitted and found to substantially comply with the contract requirements. Training and access to the Quality Assurance Database, WeldLinkPro, as specified in CCO 77, has been provided by ABFJV.

**Did corrective action require Engineer's approval?**                      **Yes**    **No**

**If so, name of Engineer providing approval:**

**Date:**

**Is Engineer's approval attached?**

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## QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

( Continued Page 3 of 3 )

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**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, (86) 134-8257-0045, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Sinevod,Serge	Quality Assurance Inspector
<b>Reviewed By:</b>	Wahbeh,Mazen	QA Reviewer

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