

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-000080**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 25-Feb-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0078**Type of problem:****Welding****Concrete****Other****Welding****Curing****Procedural****Bridge No:** 34-0006**Joint fit-up****Coating****Other****Component:** DP57, DP59, DP 13-001, DP18-001, DP63-001, DP18-001**Procedural****Procedural****Descriptor:** OBG Deck Panel**Description of Non-Conformance:**

American Bridge/Fluor (ABF) is allowing their fabricator (ZPMC) to continue welding of closed ribs to deck plates despite failing production monitoring tests (PMT). ABF allowed ZPMC to continue fabrication without performing two consecutive successful additional specimen trials that are approved by the Engineer. PMT #3 failed visual inspection, and PMTs #8, and #10 fail ultrasonic inspection. Affected Deck Panels include DP57, DP59, DP 13-001, DP18-001, DP63-001, DP18-002, DP62-001, and DP61-001.

Applicable reference:

Section 10-1.59 'Steel Structures,' subsection 'Shop Welding,' subsection 'Welding of Closed Ribs to Box Shell Plate', paragraph C. "Monitoring of Production welds" of the Special Provisions, page 329: "In the event that the monitoring test specimens do not provide quality similar to those originally developed and accepted, fabrication shall cease. The welding parameters shall then be adjusted and production of qualified welds verified through two consecutive successful additional specimen trials approved by the Engineer before fabrication of deck panels is allowed to continue with the welding machine and operator being monitored."

Who discovered the problem: Patrick Lowry**Name of individual from Contractor notified:****Time and method of notification:****Name of Caltrans Engineer notified:** Stanley Ku**Time and method of notification:** Verbal notification at 09:00 on 02-26-2008**QC Inspector's Name:****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 Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Inspected By: Lowry,Patrick

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: 28-Feb-2008

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

Attention: Dave Williams Consultant

Job Name: SAS Superstructure

Document No: 05.03.06-000047

Subject: NCR No. ZPMC-0078

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-0078

Remarks:

Please see attached Non-Conformance Report for details.

Transmitted by: Stanley Ku Sr. Bridge Engineer

cc: Rick Morrow, Gary Pursell, Stanley Ku, Brian Boal, Jason Tom, Dave Williams

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Dated: 05-Aug-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-000066 Rev: 00

Ref: 05.03.06-000047

Subject: NCR No. ZPMC-0078

Contractor's Proposed Resolution:

Reference Resolution: ABFJV has directed ZPMC to follow the specified PMT Protocol.

Please see attached.

Submitted by: Kanapicki, Charles

Attachment(s): ABF-NPR-000066R00;

Caltrans' comments:

Status: CLO

Date: 10-Sep-2008

The Contractor's response is acceptable. The Department concurs that Non-Conformance ZPMC-0078 is closed. However, acceptance of deck panels associated with this Non-Conformance will be considered on an individual basis.

Submitted by: Wright, Doug

Date: 10-Sep-2008

Attachment(s):

03-Jun-2008

ABF-ZPM-LTR-000162
(Sent via e-mail and FedEx)

Mr. Wu Yun
ZPMC
Steel Structure Caltrans, Room 203 Building No. 2
Shanghai, China 200125

PROJECT: San Francisco Oakland Bay SAS Bridge Superstructure
Caltrans Contract No. 04-0120F4
ABF Job No. 660110

SUBJECT: SUPPLY AGREEMENT NO. 660110-SA-001
OBG DECK PANEL FABRICATION

Gentlemen:

American Bridge/Fluor Enterprises, Inc., Joint Venture (ABFJV), at the request of Zhenhua Port Machinery Company (ZPMC) is issuing this letter in response to ZPMC's May 22, 2008 teleconference request that ABFJV, once again provide ZPMC the status of the 18 deck panel described as unacceptable in our letter ABF-ZPM-LTR-000153, dated May 15, 2008, a copy of which is attached.

The aforementioned 18 deck panels, identified in ABF-ZPM-LTR-000153 were not considered acceptable due to the fact that either a PMT was not properly performed in compliance with the requirements of the Contract Documents or an "indicated defect" was found in the macro-etches that cannot be located and identified for repair, without destroying the permanent panels. Since ZPMC has neither fulfilled the Contract obligations in respect to the performance of NDT on these panels, nor submitted the required NDT documentation, ABFJV can not officially reject these panels until ZPMC does so. However, notwithstanding the lack of an official rejection of the 18 deck panels in question, ZPMC is directed not to incorporate these panels into permanent works and clearly mark them rejected.

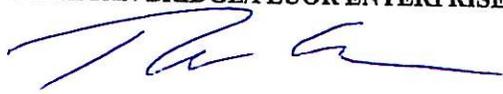
ZPMC is once again directed to fulfill all testing and documentation requirements set forth in the Contract Documents and provide this documentation to ABFJV for submittal to Caltrans's for acceptance. ZPMC's failure to provide this information in a timely manner is causing a delay to the job. Furthermore, ZPMC is directed to immediately replace the eighteen unacceptable deck panels with new panels.

ABFJV believes that the path forward, described in letter ABF-ZPM-LTR-000153 will minimize ZPMC's risk of producing unacceptable or rejected deck panels in the future. If ZPMC does not agree with Caltrans' acceptance criteria and the directions provided by ABFJV, ZPMC has the option of submitting a claim pursuant to the terms and conditions of the Contract Documents. However, at this time the ABFJV's direction to ZPMC, to remake the applicable deck panels, remains as originally provided.

If you have any questions, please feel free to contact our office.

Sincerely,

AMERICAN BRIDGE/FLUOR ENTERPRISES, INC. A JOINT VENTURE


Thomas Nilsson
Project Manager - OBG
TN/rt

Enclosure: Copy of Letter ABF-ZPM-LTR-000153
File: 04.01.4

15-May-2008

(Sent via e-mail and Express Mail)

ABF-ZPM-LTR-000153

Mr. Wu Yun

ZPMC

Steel Structure Caltrans, Room 203 Building No. 2
Shanghai, China 200125

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PROJECT: San Francisco Oakland Bay SAS Bridge Superstructure
Caltrans Contract No. 04-0120F4
ABF Job No. 660110

SUBJECT: SUPPLY AGREEMENT NO. 660110-SA-001
OBG DECK PANEL FABRICATION

Gentlemen:

American Bridge/Fluor Enterprises, Inc., Joint Venture (ABFJV) received the Caltrans's letter 05.03.01-001813 dated April 28, 2008 regarding unacceptable deck panels. This letter was forwarded by ABFJV to Zhenhua Port Machinery Company (ZPMC) on May 12, 2008 via ABFJV Letter No. ABF-ZPM-LTR-000150. Further to that, the Caltrans has also defined the acceptance criteria for the Production Monitoring Test (PMT) as outlined in attached document. Based upon further discussions about this letter and about the acceptance criteria for the PMT with the Caltrans, ABFJV has come to the following conclusions:

1. Out of the fifty-seven (57) unacceptable deck panels listed in the Caltrans's letter, the following conclusions has been made:
 - a. Eighteen (18) panels can not be presented as acceptable by ABFJV due to the fact that either a PMT was not performed in compliance with the requirements of the Contract Documents or an "indicated defect" was found in the macro-etches that cannot be identified for repair in the permanent panels.
 - b. Two (2) deck panels have been purchased by ABFJV and ZPMC can remake them according to the acceptance criteria.
 - c. Thirty-seven (37) deck panels will be presented as acceptable by ABFJV if ZPMC performs twice the amount of the contractually required Ultrasonic Testing and Magnetic Particle Testing on these production panels and the results follows the contractually required acceptance criteria.

Please see attached list for a detailed breakdown.

For the sixty-three (63) pending deck panels noted in the Caltrans's letter, ABFJV has attached a detailed breakdown list of what has to be done in order to present them as acceptable.

As part of the acceptance criteria, ABFJV has presented a flowchart for the PMT. It is ABFJV's strong recommendation to ZPMC that the PMT is done prior to start of fabrication. ABFJV recommends that ZPMC weld only one U-rib stiffener at a time and therefore only has to do one PMT for each welding gantry every day. With the use of both gantries and a double shift, ZPMC can fabricate 4 deck panels every day and according to ABFJV's schedule it will be sufficient to not affect the overall schedule.

ABF-ZPM-LTR-000153
PAGE 2

In recent weeks ABFJV has also seen an increase in the failures of the Macro-etches on the WMT. Please be aware that as per the attached acceptance criteria, the relevant deck panels might be in risk of being unacceptable as per the Department's letter.

As for ZPMC request for the UT acceptance criteria on production deck panels, ABFJV will present a deck panel acceptable to the Department as per the following criteria:

- a. Test 15% of every weld, i.e. one side of a U-rib.
- b. The acceptance criteria is based upon the penetration being 80%.
- c. If 5% of the tested weld length is between 70 to 80% AND that no indication is longer than 100 mm per every 1000 mm the weld is acceptable.
- d. If there is more than 5% between 70 and 80, test an additional 15% and then apply the same acceptance criteria all the way up to 100% testing of the weld.
- e. Anything under 70% OR above 5% between 70 to 80 OR above 100 mm continuous indication it is considered a rejectable defect (but repairable).

ABFJV would like to sit down with ZPMC to evaluate and suggest a path forward.

Sincerely,

AMERICAN BRIDGE/FLUOR ENTERPRISES, INC. A JOINT VENTURE



Thomas Nilsson
Project Manager - OBG

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File: 04.01.4

Enclosures: Procedure for Monitoring of Production Welds (3 pages)
57 Unacceptable Deck Panels Resolution (2 pages)
Summary of Weld Monitoring Tests (2 pages)
Weld Monitoring Production Sheet (1 page)

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Procedure for Monitoring of Production Welds
Production Monitoring Test (PMT)
for
SFOBB Closed Rib to Deck Plate Welding

The following procedure is based on Special Provision Section 10-1.59, STEEL STRUCTURES, subsection SHOP WELDING. This document is intended to clarify the interpretation of these specifications as they pertain to monitoring of production welds

Testing Frequency:

Each Production Monitoring Test (PMT) shall consist of one test for the designated welding operators and welding machines. This shall be referred to as a test panel. A PMT to be conducted at the beginning of each shift or if there is a change in welding personnel or machine at anytime during a shift. The test panel is to monitor production for all welding heads and operators that will be used during a shift at a minimum. The maximum number of operators/welders is currently 7. A welder/operator is defined as any individual controlling essential weld variables.

For any weld of the PMT panel that is found to not be in conformance with the acceptance criteria as clarified below, two additional consecutive test panels are to be constructed and tested.

Production Monitoring Test Panel Size:

Each PMT panel will be made from an 800mm long flat plate with three 800 mm long ribs. A 500mm continuous segment of the panel will be identified by ZPMC as the location for specimen testing. Specimens are defined as 1 rib and a tributary section of the flat plate per Special Provisions. The specimens will start and run continuously for 500mm. Each specimen will begin at the same location from an end of the panel.

Welding:

Ribs shall be tacked to the testing panel at the same tack weld spacing and length as in production, at least one within the 500mm long specimen portion of each rib. For details of LOP criteria, see Macroetch Test criteria stated below.

Welding setup should be checked as in production prior to start of welding.

Acceptance Criteria:

The following shall be the acceptance criteria for PMT specimens and are intended to provide quality similar to that previously developed and submitted for acceptance.

Testing documentation (see attached) is to be signed by ZPMC, ABF and CT inspectors at the completion of the PMT.

100% Visual Testing (VT):

Visual Testing shall be performed in accordance with AWS D1.5, Special Provisions, and guidelines established during weld trial and deck mockup through mutual agreement between ZPMC, ABF, and Caltrans. The following are a summary of inspection items and individual

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percentages of defects that shall be considered acceptable. The percentages are cumulative to full percentage shown below (approximately 21%) for each weld of each specimen.

- Cracking is not to be accepted.
- 100mm, or 25% of the weld length, Overlap shall be accepted per weld.
- Undercut of up to 0.25mm deep shall be accepted for the entire length of each weld. Undercut greater than 0.25 mm is acceptable for up to 5mm, or 1% of the weld length..
- Undersized fillet reinforcement (up to 2 mm undersized) shall be allowed for up to 50mm, or 10% of the weld length, provided that a minimum of 80% penetration is provided at that location.
- 25mm, or 5% of the weld length, incomplete fusion at top of weld shall be acceptable per weld.
- Surface porosity shall be accepted per AWS D1.5 criteria.
- Oversized fillet reinforcement up to 2mm over the maximum defined weld size is considered acceptable for the full length of the weld.

Note that if a PMT is rejected by VT. No further testing is required and a new PMT shall be started immediately.

100% Ultrasonic Testing (UT):

UT testing is to be performed in accordance with the approved UT procedure developed for weld trials and mockup. Generally, weld penetration shall be 80% minimum. However, areas of between 70% and 80% shall be acceptable for up to 5% of each weld length. Penetration of less than 70% shall not be accepted.

Air or Water cooling may be used (quenching) to facilitate timely performance of UT testing.

Note that if a PMT is rejected by UT. No further testing is required and a new PMT shall be started immediately.

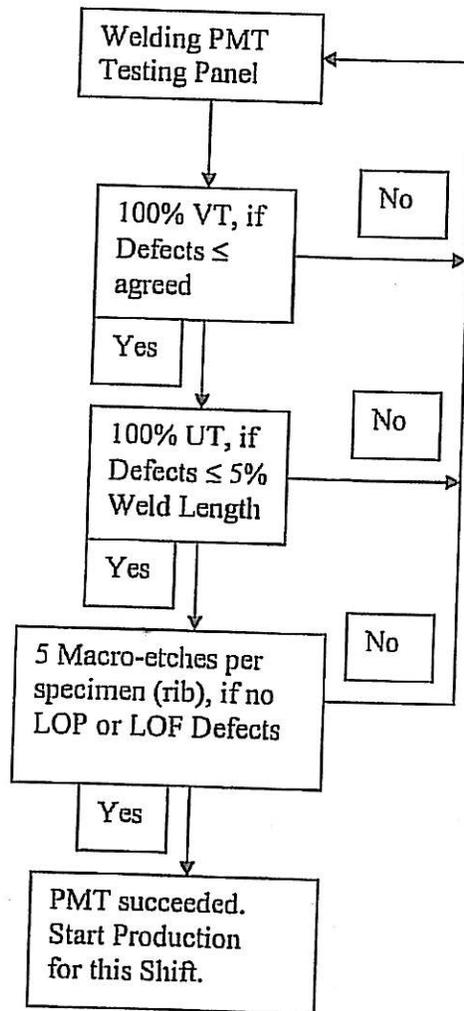
Macroetch Testing:

For each PMT specimen, 5 macro samples are to be taken at the following locations:

- 1 macro sample at 25 mm from each end. These macros are to be placed on the same side of the rib.
- 1 macro sample at a tack weld. This sample is to be placed on the same side of the rib as the end samples above.
- 2 macro samples to be determined by the engineer. These samples are to be placed on the opposite side of the rib specimen from the samples above.

Macro samples are to be taken and evaluated using AWS D1.5 for lack of penetration, and lack of fusion. Macros samples shall not be used to evaluate visual criteria. Depth of penetration less than 70% of the rib thickness is not acceptable. "Horseshoe" root discontinuity that extends into the required 80% depth of penetration is not acceptable. Any cracks detected during the macro test shall be cause for rejection of the PMT.

Note: The criteria or results from the PMT cannot be used as a basis for acceptance of the production panels. All contract requirements remain in place.



Note:

1. VT will be performed by ZPMC/ABF using the inspection criteria established herein. CT has the option of performing its own QA inspection.
2. UT may begin without waiting for the completed weld to have cooled to ambient temperature. Quenching is allowed.
3. To reduce processing time, macros will be cut and machined to within 5mm distance to the designated location (marked by CT).
4. New PMT will be conducted when a machine operator/welder is changed
5. If a PMT specimen does not meet the acceptance criteria mentioned above, the cause of the defect shall be determined the welding parameters shall be adjusted to prevent further occurrence of the defect and an additional PMT panel shall be welded before fabrication of production panels for this shift. The additional panel shall meet the acceptance criteria described in this document before production welding is allowed to commence.

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57 "Unacceptable" Deck Panels Resolution (reference to CT's letter No. 05.03.01-001813)									
Deck Panel	Segment No.	Date Welded	Associated WMT No.	WMT Failed Items per CT	ABFJV's Resolution			Remarks	
					Remove (Note 1)	Accept (Note 2)	Reject (Note 4)		
DP015-001	3BW	02/16/08	3	VT	X				
DP057-001	3BW	02/18/08	4	Macros	X				
DP016-001	3BW	02/21/08	8	UT					
DP013-001	3BW	02/22/08	9	VT,UT		X			
DP018-001	3BE	02/22/08	9	VT,UT		X		No indication was recorded by ABF or ZPMC. ZPMC recorded Sample 2-5 LOP as 2mm.	
DP063-001	3BE	02/23/08	10	VT,UT			X		
DP018-002	3BE	02/23/08	10	VT,UT			X		
DP020-001	3BE	02/26/08	13	VT,UT		X		No indication was recorded by ABF or ZPMC. ZPMC recorded Sample 3-4 as 0.7mm.	
DP064-001	3BE	02/26/08	13	VT,UT		X		ABF noticed two LOP. ZPMC recorded three samples with LOP as 2.5mm.	
DP031-001	4AE	02/27/08	14	UT		X			
DP026-001	4AW	02/28/08	15	VT,UT		X			
DP030-001	4AE	02/28/08	15	VT,UT		X			
DP088-001	4AW	03/01/08	16	VT		X			
DP030-002	4AE	03/01/08	16	VT		X			
DP072-001	4AE	03/02/08	17	UT		X			
DP070-001	4AE	03/02/08	17	UT		X			
DP025-001	4AW	03/03/08	19	UT		X		No indication was recorded by ABF or ZPMC. Samples 6-6 does not exist.	
DP071-001	4AE	03/04/08	20	VT,UT		X			
DP028-001	4AW	03/04/08	20	VT,UT		X			
DP028-001	4AE	03/05/08	25	VT,UT			X		
DP032-001	4AE	03/05/08	22	Macros		X			
DP040-001	4BW	03/05/08	22	Macros		X			
DP069-001	4AE	03/05/08	25	VT,UT			X		
DP066-001	4AW	03/06/08	23	UT			X		
DP041-001	4BE	03/06/08	23	UT			X		
DP074-001	4BW	03/08/08	27	VT			X		
DP080-001	4BE	03/08/08	26	VT		X		ABF noticed a rounded indication on Sample 5-3. No indication on Sample 1-2 was recorded by ABF or ZPMC. ZPMC recorded Sample 1-2 LOP as 2.2mm.	
DP073-001	4BW	03/09/08	28	VT		X			
DP042-002	4BE	03/09/08	28	VT		X			
DP042-001	4BE	03/10/08	30	VT,UT		X			
DP037-001	4BW	03/10/08	31	VT		X			
DP038-001	4BW	03/10/08	30	VT,UT		X			
DP044-001	4BE	03/11/08	32	VT		X			

57 "Unacceptable" Deck Panels Resolution (reference to CT's letter No. 05.03.01-001813)							
Deck Panel	Segment No.	Date Welded	Associated WMT No.	WMT Failed Items per CT	ABF JV's Resolution		Remarks
					Remove (Note 1)	Accept (Note 2)	
DP075-001	4BW	03/12/08	34	VT		X	ABF noticed a linear indication on Sample 4-2. No indication on Sample 2-3, 3-4, 6-3 was recorded by ABF or ZPMC. ZPMC recorded these four samples' LOP as 2.2mm, 0.6mm, 1.3mm, 1.4mm, respectively.
DP039-001	4BW	03/12/08	35	VT			
DP043-001	4BE	03/13/08	36	VT			
DP405-001	5AE	03/16/08	39	VT,UT			
DP243-001	5AW	03/16/08	39	VT,UT			
DP351-001	5AE	03/17/08	40	VT			
DP378-001	5AE	03/17/08	40	VT			
DP216-001	5AW	03/18/08	42	VT			
DP001-001	3AW	03/19/08	44	VT			
DP135-001	5AW	03/19/08	44	VT			
DP164-001	5CW	03/29/08	60	Macros			
DP380-001	5CE	03/29/08	60	Macros			
DP006-002	3AE	04/02/08	67	Macros			
DP247-001	6BW	04/02/08	67	Macros			
DP109-001	5BW	04/03/08	68	Macros			
DP463-001	6BE	04/03/08	68	Macros			
DP298-001	5BE	04/12/08	81	Macros			
DP136-001	5BW	04/12/08	81	Macros			
DP487-001	5BE	04/15/08	87	Macros			
DP460-001	5BE	04/15/08	87	Macros			
DP276-001	6CW	04/17/08	89	Macros			
DP324-002	5AE	04/17/08	89	Macros			
DP302-001	6CE	04/18/08	90	Macros			
DP300-001	6AE	04/18/08	90	Macros			

Note:

- 1) Panels were purchased by ABF to perform destructive testing.
- 2) Panels can be repaired and used on the permanent structure if the proposed remedy is acceptable to CT.
- 3) Panels can not be repaired and used on the permanent structure without the missing information submitted.
- 4) Panels are deemed unacceptable with or without repair, and can not be used on the permanent structure of this bridge.

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Summary of Weld Monitoring Tests
 ("Pending" status based on data collected by the Department as of April 21, 2008)

Pending WMTs (63 panels)

Deck Panel	Date Welded	Associated WMT #	VT	UT	Macrosections
* Please note from Feb. 15, 2008 to Mar. 19, 2008 there was not an agreement between ABF/ZPMC/CT on what constituted a passing WMT therefore CT may not have performed VT and UT on all WMTs covering these dates.					
DP-059-001	02/19/08	5	No CT VT data; previous agreement that VT of first production panel would substitute for failing WMT VT in effect? (CT VT of first panel DP-059-001, 10.82%)	ZPMC performed passing UT under CT observation	
DP-060-001	02/19/08	5			
DP-014-002	02/20/08	7			
DP-014-001	02/20/08	7			
DP-019-001	02/25/08	12	No CT VT data; previous agreement that VT of first production panel would substitute for failing WMT VT in effect? (CT VT of first panel DP-019-001, 8.08%)		Only 14 of 15 macros evaluated
DP-017-001	02/25/08	12			
DP-065-001	03/03/08	18	No CT VT data; previous agreement that VT of first production panel would substitute for failing WMT VT in effect? (CT VT of first panel DP-065-001, 6.05%)		
DP-027-001	03/03/08	18			
DP-005-001	03/09/08	29	No CT VT data; previous agreement that VT of first production panel would substitute for failing WMT VT in effect? (CT VT of first panel DP-005-001, 13.95%)		
DP-003-001	03/18/08	41			
DP-272-001	03/18/08	41			
DP-110-002	03/20/08	45			
DP-326-001	03/20/08	45			
DP-118-001	03/21/08	47			
DP-488-001	03/21/08	47			
DP-109-001	03/22/08	48			
DP-108-002	03/22/08	48			
DP-079-001	03/24/08	52			
DP-432-001	03/24/08	53			
DP-054-001	03/24/08	53			
DP-055-001	03/24/08	52			
DP-076-001	03/28/08	57			
DP-082-001	03/28/08	59			

ZPMC shall review the macros listed by CT here again by using the current acceptance criteria and provide its findings to ABF.

ZPMC shall provide record of its UT performed on these PNTs to ABF.

ABF found 1 inclusion on Sample 1-2.

ABF found linear indication on Sample 1-2 and 3-3.

ABF found a rounded indication on Sample 6-1 and DOP as 9.4mm. There is another rounded indication on Sample 2-5.

ABF found 1 rounded indication.

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DP-004-001	03/28/08	57		ZPMC performed passing UT under CT observation
DP-271-001	03/30/08	61		ZPMC performed passing UT under CT observation
DP-156-001	03/30/08	62		ZPMC performed passing UT under CT observation
DP-162-001	03/30/08	62		ZPMC performed passing UT under CT observation
DP-163-001	03/31/08	64		ZPMC performed passing UT under CT observation
DP-190-001	03/31/08	64		ZPMC performed passing UT under CT observation
DP-355-001	04/01/08	66		ZPMC performed passing UT under CT observation
DP-328-001	04/01/08	66		ZPMC performed passing UT under CT observation
DP-051-001	04/04/08	69		ZPMC performed passing UT under CT observation
DP-112-001	04/04/08	69		ZPMC performed passing UT under CT observation
DP-109-002	04/05/08	70		ZPMC performed passing UT under CT observation
DP-328-002	04/05/08	70		ZPMC performed passing UT under CT observation
DP-244-001	04/06/08	71		ZPMC performed passing UT under CT observation
DP-139-001	04/07/08	73		ZPMC performed passing UT under CT observation
DP-049-001	04/07/08	73	No CT UT data	
DP-490-001	04/07/08	72		ZPMC performed passing UT under CT observation
DP-301-001	04/07/08	72	No CT UT data	
DP-085-001	04/08/08	74		ZPMC performed passing UT under CT observation
DP-436-001	04/08/08	75		ZPMC performed passing UT under CT observation
DP-392-001	04/08/08	75		ZPMC performed passing UT under CT observation
DP-274-001	04/08/08	74		ZPMC performed passing UT under CT observation
DP-166-001	04/08/08	76		ZPMC performed passing UT under CT observation
DP-112-002	04/09/08	78		ZPMC performed passing UT under CT observation
DP-409-001	04/09/08	76		ZPMC performed passing UT under CT observation
DP-324-001	04/09/08	78		ZPMC performed passing UT under CT observation
DP-326-002	04/10/08	78		ZPMC performed passing UT under CT observation
DP-406-001	04/10/08	79		ZPMC performed passing UT under CT observation
DP-353-001	04/11/08	80		ZPMC performed passing UT under CT observation
DP-052-001	04/11/08	80		ZPMC performed passing UT under CT observation
DP-053-001	04/13/08	84		No CT UT data
DP-325-001	04/13/08	84		ZPMC performed passing UT under CT observation
DP-325-002	04/14/08	86		ZPMC performed passing UT under CT observation
DP-378-001	04/14/08	86		ZPMC performed passing UT under CT observation
DP-461-001	04/16/08	88		ZPMC performed passing UT under CT observation
DP-086-001	04/19/08	88		ZPMC performed passing UT under CT observation
DP-273-001	04/19/08	91		ZPMC performed passing UT under CT observation
DP-270-001	04/20/08	92		ZPMC performed passing UT under CT observation
DP-327-002	04/20/08	92		ZPMC performed passing UT under CT observation

ABF found no indication.

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Fail on 4/20/08 - lack of fusion example BS-3-3
Pass on 4/21/08



Production Monitoring Test Plate Inspection Report.

Project Name: SFOBB - SAS		Contract #: 0120F4		Date:	
Data / Time Welding Completed:		Deck Panels Associated with PMT:			
VT - Inline with 602 meeting agreement.		Macro - Inline with 602 meeting agreement.			
ZPMC (print name):	Accepted	Rejected	ZPMC (print name):	ABFJV (print name):	Caltrans (print name):
Time:-			Time:-		
ABFJV (print name):			Acc.	Rej.	Acc.
Time:-			Time:-		
Caltrans (print name):			Rej.	Rej.	Rej.
Time:-					
UT - Inline with 602 meeting agreement and ZPOC-UT-02.					
ZPMC (print name):	Accepted	Rejected			
Time:-					
ABFJV (print name):					
Time:-					
Caltrans (print name):					
Time:-					
Legend:-		OL - Overlap UF - Underfill OS - Oversize US - Undersize LF - Lack of Fusion UC - Undercut LOP - Lack of Penetration BT - Blow-through C - Cracks Lin. Ind. - Linear Indications			
Verified Signature: ZPMC:		ABFJV:		Caltrans:	
Date / Time:					

COPY

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-000173**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 31-Dec-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0078**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: 25-Feb-2008**Description of Non-Conformance:**

American Bridge/Fluor (ABF) is allowing their fabricator (ZPMC) to continue welding of closed ribs to deck plates despite failing production monitoring tests (PMT). ABF allowed ZPMC to continue fabrication without performing two consecutive successful additional specimen trials that are approved by the Engineer. PMT #3 failed visual inspection, and PMTs #8, and #10 fail ultrasonic inspection. Affected Deck Panels include DP57, DP59, DP 13-001, DP18-001, DP63-001, DP18-002, DP62-001, and DP61-001.

Contractor's proposal to correct the problem:

Reference: ABF-ZPM-LTR-000153

Corrective action taken:

Fabricating per the accepted proposal.

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) 150.0042.2372, who represents the Office of Structural Materials for your project.

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