

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-000899**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 23-Nov-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0861**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Weld No. DP3091-001-180, Lift 13BE
Procedural	Procedural	Description:	

Reference Description: Weld Procedure Requirements for New Welds Not Followed**Description of Non-Conformance:**

During Caltrans Quality Assurance in process observations of the fabrication of Deck Plate Segment Assembly, QA discovered the following issue(s):

ZPMC welding personnel did not appear to be following the NEW WELD PROCEDURE (Rager/McQuaid)

The following requirements were not followed:

3. Preparation for welding (3L)
4. Welding (4A, 4C, 4E)
5. Postweld Thermal Treatment (5A, 5B)

NOTE: The above is relative to sections 3 ~ 5 of the NEW WELD PROCEDURE (Rager/McQuaid) and the corresponding paragraph letters.

The weld is identified as DP3091-001-180

The welding process used was FCAW

The area was being preheated using Torch

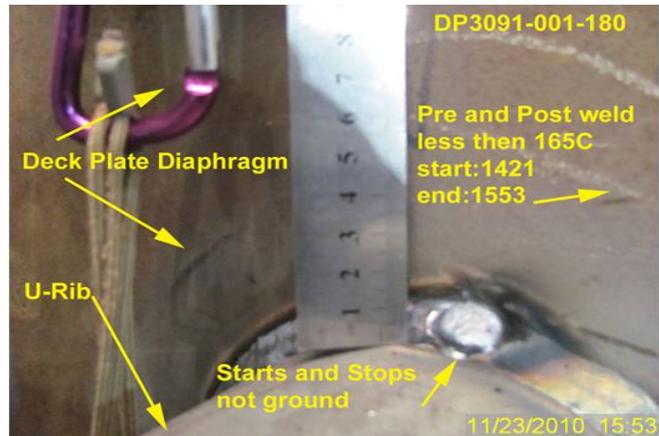
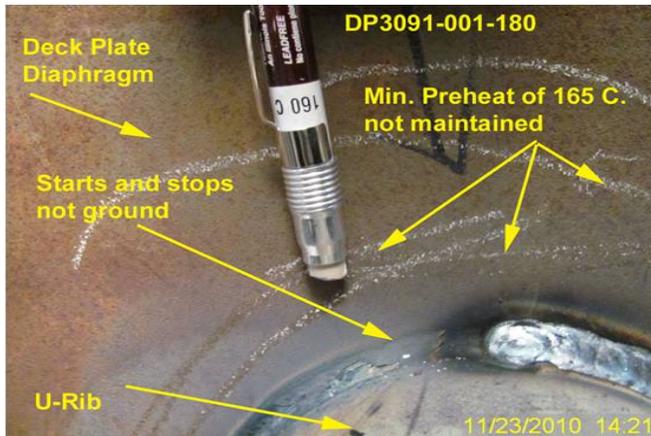
The weld is a CJP and Fillet joining U-Rib to Deck Plate Diaphragm

The weld is designated as SPCM

Weld number DP3091-001-180 is located in Bay 14 for Segment 13BE.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

3) Preparation for Welding (3L)

L. Alternatively, preheating using gas preheating torches shall be applied to the weld joint and surrounding area in such a way that the entire area to be welded and all adjacent material out to a distance of 75mm in any direction is heated to the value shown in AWS D1.5, clause 12.14 (Table 12.3 or Table 12.4 as appropriate). Preheat temperature is always stated as a minimum value.

4) Welding (4A, 4C, 4E)

A. All welding shall be performed in accordance with an approved WPS and as amended by this procedure.

C. The CWI shall verify that the welder understands that all starts and stops are to be ground before an arc is struck on them to remove weld craters and provide a means to tie the next weld pass into the end of the weld.

E. Preheat shall be maintained in accordance with Section 3.k. ~ 3.n. of this procedure.

5) Postweld Thermal Treatment (5A, 5B)

A. After welding is completed but before the temperature falls below that of the preheat temperature, post heat shall be applied to maintain the temperature in the area of the weld at 165 C - 225°C.

B. Post weld heating shall be maintained for a minimum of 1.5 hours for material base metal thickness of 25mm or less.

Who discovered the problem: Robert A. DeArmond

Name of individual from Contractor notified: Peter Shaw

Time and method of notification: 14:30Hrs, Verbal, 11/23/10

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 11:30Hrs, Email, 11/24/10

QC Inspector's Name: Wang Lu

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

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Office of Structural Materials for your project.

Inspected By:	Devey,Jim	SMR
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Reviewed By:	Wahbeh,Mazen	SMR
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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 **Date:** 24-Nov-2010
 375 BURMA ROAD
 OAKLAND CA 95607 **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:** 05.03.06-000857
Subject: NCR No. ZPMC-0861

Reference Description: Weld Procedure Requirements for New Welds Not Followed

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:** 13

Remarks:

During Caltrans Quality Assurance in process observations of the fabrication of Deck Plate Segment Assembly, QA discovered the following issue(s):

ZPMC welding personnel did not appear to be following the NEW WELD PROCEDURE(Rager/McQuaid)

The following requirements were not followed:

- 3. Preparation for welding (3L)
- 4. Welding (4A, 4C, 4E)
- 5. Postweld Thermal Treatment (5A, 5B)

NOTE: The above is relative to sections 3 ~ 5 of the NEW WELD PROCEDURE (Rager/McQuaid) and the corresponding paragraph letters.

The weld is identified as DP3091-001-180

The welding process used was FCAW

The area was being preheated using Torch

The weld is a CJP and Fillet joining U-Rib to Deck Plate Diaphragm

The weld is designated as SPCM

Weld number DP3091-001-180 is located in Bay 14 for Segment 13BE.

Action Required and/or Action Taken:

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

Transmitted by: Laraine Woo Transportation Engineer

Attachments: ZPMC-0861

NCT

(Continued Page 2 of 2)

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, 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: 05.03.06-000857

Subject: NCR No. ZPMC-0861

Dated: 29-Nov-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000855 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: The "NEW WELD PROCEDURE (Rager/McQuaid)" quoted as the basis for this NCR is not a contact document only a recommendation from the QA/QC Committee.

The "NEW WELD PROCEDURE (Rager/McQuaid)" quoted as the basis for this NCR is not a contact document only a recommendation from the QA/QC Committee. If the Department wants to incorporate the QA/QC committee's recommendations as a contract requirement a contract change order should be issued. As this NCR was written without basis it should be withdrawn.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000855R00

Caltrans' comments:

Status: REJ

Date: 03-Dec-2010

CT acknowledges contractor's response. However, successful NDT will close this NCR.

Submitted by: Chao, Ching

Attachment(s):

Date: 03-Dec-2010

NCR PROPOSED RESOLUTION

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

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000857

Subject: NCR No. ZPMC-0861

Dated: 08-Dec-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000855 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: We understand your response and we will not submit the normal NCR closure package with NDT reports for this and expect that CT will close these as the green tags for these components are issued.

We understand your response and we will not submit the normal NCR closure package with NDT reports for this and expect that CT will close these as the green tags for these components are issued.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000855R01

Caltrans' comments:

Status: REJ

Date: 09-Dec-2010

Normal NCR closure package with NDT reports shall be submitted with the NPR to close out the NCR.

Submitted by: Woo, Laraine

Attachment(s):

Date: 09-Dec-2010

NCR PROPOSED RESOLUTION

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

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000857

Subject: NCR No. ZPMC-0861

Dated: 01-Mar-2011

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000855 Rev: 02

Contractor's Proposed Resolution:

Reference Resolution: ZPMC is providing acceptable NDT of the weld referenced in the NCR and requests closure of this NCR.
ZPMC is providing acceptable NDT of the weld referenced in the NCR and requests closure of this NCR.

Submitted by: Ishibashi, Joshua
Attachment(s): ABF-NPR-000855R02;

Caltrans' comments:

Status: CLO

Date: 02-Mar-2011

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0861 is closed.

Submitted by: Eagen, Sean
Attachment(s):

Date: 02-Mar-2011



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-34973		DATE日期 2011.01.21		PAGE OF 页码 1/21	Revision No: 0	
PROJECT NO. 工程编号: ZP06-787			CONTRACTOR: 用户: CALTRANS			
DRAWING NO. 图号: DP3089 DP3090 DP3091 13BE DECK PLATE SPLICE			CALTRANS CONTRACT NO.: 加州工程编号 04-0050F4			
REFERENCING CODE 参考规范编码 AWS D1.5-2002	ACCEPTANCE STANDARD 接受标准 AWS D1.5-2002	PROCEDURE NO. 程序编号 ZPQC-MT-01	CALIBRATION DUE DATE 仪器校正有效期 Dec. 28 ST , 2011			
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B-310S	SERIAL NO. 连续编号 7456			
MAGNETIZING METHOD 磁化方法	Continuous magnetic yoke 磁轭式连续法	CURRENT 电流	AC			
PARTICLE TYPE 磁粉类型	Dry magnet powder 干磁粉	YOKE SPACING 磁轭间距	70~150mm			
MATERIAL TO BE EXAMINED 检测材料	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材, 厚度	A709M-345T2-X 12/14/20mm			
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	T-JOINT			
WELD I.D. 焊缝编号	DISCONTINUITY 不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
DP3089-001-031				ACC.		100%MT
DP3089-001-032				ACC.		100%MT
DP3089-001-041				ACC.		100%MT
DP3089-001-042				ACC.		100%MT
DP3089-001-051				ACC.		100%MT
DP3089-001-052				ACC.		100%MT
DP3089-001-061				ACC.		100%MT
DP3089-001-062				ACC.		100%MT
DP3089-001-071				ACC.		100%MT
DP3089-001-072				ACC.		100%MT
DP3089-001-073				ACC.		100%MT
DP3089-001-074				ACC.		100%MT
DP3089-001-083				ACC.		100%MT
DP3089-001-084				ACC.		100%MT
DP3089-001-093				ACC.		100%MT
DP3089-001-094				ACC.		100%MT
EXAMINED BY 主探 Ji FEI <i>Ji Fei</i>			REVIEWED BY 审核 <i>Wany Wei</i>			
LEVEL - II SIGN 签名 / DATE日期 2011.01.21			LEVEL <input checked="" type="checkbox"/> SIGN / DATE日期 2011.01.21			
质量经理 / QCM <i>[Signature]</i>			用户 CUSTOMER			
签字 SIGN / 日期 DATE 2011.01.21			签字 SIGN / 日期 DATE			



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-34973		DATE 日期 2011.01.21		PAGE OF 页码 12/21	Revision No: 0	
PROJECT NO. 工程编号: ZP06-787			CONTRACTOR: 用户: CALTRANS			
DRAWING NO. 图号: DP3089 DP3090 DP3091 13BE DECK PLATE SPLICE			CALTRANS CONTRACT NO.: 加州工程编号 04-0050F4			
REFERENCING CODE 参考规范编码 AWS D1.5-2002	ACCEPTANCE STANDARD 接受标准 AWS D1.5-2002	PROCEDURE NO. 程序编号 ZPQC-MT-01	CALIBRATION DUE DATE 仪器校正有效期 Dec. 28 ST , 2011			
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B-310S	SERIAL NO. 连续编号 7456			
MAGNETIZING METHOD 磁化方法	Continuous magnetic yoke 磁轭式连续法	CURRENT 电流	AC			
PARTICLE TYPE 磁粉类型	Dry magnet powder 干磁粉	YOKE SPACING 磁轭间距	70~150mm			
MATERIAL TO BE EXAMINED 检测材料	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材, 厚度	A709M-345T2-X 12/14/20mm			
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	T-JOINT			
WELD I.D. 焊缝编号	DISCONTINUITY 不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
DP3091-001-118				ACC.		100%MT
DP3091-001-119				ACC.		100%MT
DP3091-001-127				ACC.		100%MT
DP3091-001-128				ACC.		100%MT
DP3091-001-137				ACC.		100%MT
DP3091-001-138				ACC.		100%MT
DP3091-001-147				ACC.		100%MT
DP3091-001-148				ACC.		100%MT
DP3091-001-160				ACC.		100%MT
DP3091-001-161				ACC.		100%MT
DP3091-001-169				ACC.		100%MT
DP3091-001-170				ACC.		100%MT
DP3091-001-179				ACC.		100%MT
DP3091-001-180				ACC.		100%MT
DP3091-001-189				ACC.		100%MT
DP3091-001-190				ACC.		100%MT
EXAMINED BY 主探 Ji FEI <u>Ji Fei</u> LEVEL - II SIGN 签名 / DATE 日期 2011.01.21			REVIEWED BY 审核 <u>Wang Wei</u> LEVEL - II SIGN / DATE 日期 2011.01.21			
质量经理 / QCM <u>[Signature]</u> 签字 SIGN / 日期 DATE 2011.01.21			用户 CUSTOMER _____ 签字 SIGN / 日期 DATE			



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-34973		DATE日期 2011.01.21		PAGE OF页码 21/21	Revision No: 0	
PROJECT NO. 工程编号: ZP06-787			CONTRACTOR: 用户: CALTRANS			
DRAWING NO. 图号: DP3089 DP3090 DP3091 13BE DECK PLATE SPLICE			CALTRANS CONTRACT NO.: 加州工程编号 04-0050F4			
REFERENCING CODE 参考规范编码 AWS D1.5-2002	ACCEPTANCE STANDARD 接受标准 AWS D1.5-2002	PROCEDURE NO. 程序编号 ZPQC-MT-01		CALIBRATION DUE DATE 仪器校正有效期 Dec. 28 ST , 2011		
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PARTICLE TYPE 磁粉类型	Dry magnet powder 干磁粉	YOKE SPACING 磁轭间距		70~150mm		
MATERIAL TO BE EXAMINED 检测材料	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材,厚度		A709M-345T2-X 12/14/20mm		
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型		T-JOINT		
WELD I.D. 焊缝编号	DISCONTINUITY不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
DP3091-001-117				ACC.		100%MT
DP3091-001-124				ACC.		100%MT
DP3091-001-129				ACC.		100%MT
DP3091-001-134				ACC.		100%MT
DP3091-001-139				ACC.		100%MT
DP3091-001-144				ACC.		100%MT
DP3091-001-149				ACC.		100%MT
DP3091-001-154				ACC.		100%MT
DP3091-001-159				ACC.		100%MT
DP3091-001-166				ACC.		100%MT
DP3091-001-171				ACC.		100%MT
DP3091-001-176				ACC.		100%MT
DP3091-001-181				ACC.		100%MT
DP3091-001-186				ACC.		100%MT
DP3091-001-191				ACC.		100%MT
DP3091-001-196				ACC.		100%MT
EXAMINED BY主探 Ji FEI <u>Ji Fei</u> LEVEL - II SIGN 签名 / DATE日期 2011.01.21			REVIEWED BY审核 <u>Wang Wei</u> LEVEL-II SIGN / DATE日期 2011.01.21			
质量经理 / QCM <u>[Signature]</u> 签字 SIGN / 日期 DATE 2011.01.21			用户CUSTOMER _____ 签字 SIGN / 日期 DATE			

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, China**Report No:** NCS-000902**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 02-Mar-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0861**Type of problem:**

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

Date the Non-Conformance Report was written: 23-Nov-2010**Description of Non-Conformance:**

During Caltrans Quality Assurance in process observations of the fabrication of Deck Plate Segment Assembly, QA discovered the following issue(s):

ZPMC welding personnel did not appear to be following the NEW WELD PROCEDURE (Rager/McQuaid)

The following requirements were not followed:

3. Preparation for welding (3L)
4. Welding (4A, 4C, 4E)
5. Postweld Thermal Treatment (5A, 5B)

NOTE: The above is relative to sections 3 ~ 5 of the NEW WELD PROCEDURE (Rager/McQuaid) and the corresponding paragraph letters.

The weld is identified as DP3091-001-180

The welding process used was FCAW

The area was being preheated using Torch

The weld is a CJP and Fillet joining U-Rib to Deck Plate Diaphragm

The weld is designated as SPCM

Weld number DP3091-001-180 is located in Bay 14 for Segment 13BE.

Contractor's proposal to correct the problem:

Contractor will provide the NDT report to prove the weld is acceptable.

Corrective action taken:

Contractor submitted the NDT report. The report shows the weld is acceptable.

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

If so, name of Engineer providing approval:

Date:

Is Engineer's approval attached?

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

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 Wahbeh, Mazen 818-292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Ng,Michael	Quality Assurance Inspector
Reviewed By:	Wahbeh,Mazen	QA Reviewer
