

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-000798**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 13-Jul-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0760**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: DP3126A, 13AW
Procedural	Procedural	Description:	

Reference Description: Incorrect WPS used on DP3126A Deck Panel**Description of Non-Conformance:**

During a random in process inspection of Orthotropic Box Girder (OBG) Deck Panel (DP) DP3126A, Quality Assurance (QA) discovered the following issue:

-ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) using a WPS that is not approved for the joint being welded.

-The welding was being performed to WPS-B-T-2133 which specifies A709-345 to A709-345 material using filler metal brand Supercored 71H Class E71T1.

-The material being welded was A709-Gr345 to A709-HPS-485W.

-The welds are fillet weld T-joints, joining Seismic Performance Critical Material (SPCM) diaphragms identified as X4095N and X4095J to Rib Stiffeners identified as RS7501A/B and RS3387N/M.

-Other joints not specified as SPCM include diaphragms identified as X4095D and X4083L welded to the same rib stiffeners.

-The weld joints are identified as DP3126-001-139~142,149,150,153,154,220,222,224 and 227.

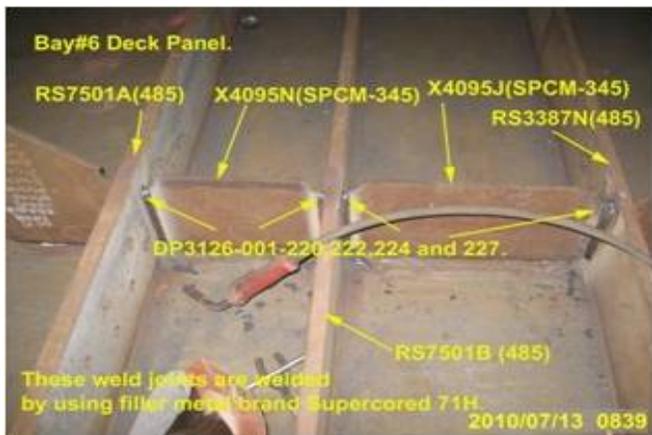
- OBG DP3126A is located in Bay #6.

- A video of this welder welding this DP has been put on the Caltrans server for review. It can be found under Team OBG//video archives//today's date.

For further information, please see the attached pictures.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

Special Provisions 8-3: The QC Inspector or CAWI shall inspect and approve each joint preparation, assembly practice, welding technique, joint fit-up, and the performance of each welder, welding operator, and tack welder to make certain that the applicable requirements of this code and the approved WPS are met.

Approved Welding Procedure Specification (WPS) WPS -B-T-4133 specifies the use of filler metal brand K-71TSR.

Who discovered the problem: Surendra Prabhu

Name of individual from Contractor notified: Liu Hua Jie

Time and method of notification: 0845 hours_07-13-10_Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 18:30_7/13/10_Email

QC Inspector's Name: Huang Min

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

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

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: 14-Jul-2010

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

Dear: Mr. Charles Kanapicki
Attention: Mr. Thomas Nilsson Project/Fabrication Manager
Subject: NCR No. ZPMC-0760

Job Name: SAS Superstructure
Document No: 05.03.06-000756

Reference Description: Incorrect WPS used on DP3126A Deck Panel

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 a random in process inspection of Orthotropic Box Girder (OBG) Deck Panel (DP) DP3126A, Quality Assurance (QA) discovered the following issue:
- ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) using a WPS that is not approved for the joint being welded.
 - The welding was being performed to WPS-B-T-2133 which specifies A709-345 to A709-345 material using filler metal brand Supercored 71H Class E71T1.
 - The material being welded was A709-Gr345 to A709-HPS-485W.
 - The welds are fillet weld T-joints, joining Seismic Performance Critical Material (SPCM) diaphragms identified as X4095N and X4095J to Rib Stiffeners identified as RS7501A/B and RS3387N/M.
 - Other joints not specified as SPCM include diaphragms identified as X4095D and X4083L welded to the same rib stiffeners.
 - The weld joints are identified as DP3126-001-139~142,149,150,153,154,220,222,224 and 227.
 - OBG DP3126A is located in Bay #6.

Action Required and/or Action Taken:

Proposed 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-0760

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: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000756

Subject: NCR No. ZPMC-0760

Dated: 07-Sep-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000768 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC is providing NDT documentation to show that the welds are acceptable after being welded using the correct WPS.

ZPMC has removed the welds that were welded using the incorrect WPS and filler metal in accordance with the approved CWR. ZPMC is providing NDT documentation to show that the welds are acceptable after being welded using the correct WPS. In this instance, ZPMC production began work prior to the CWI arriving which would have prevented this non conformance. ZPMC QA has warned the production department and the production team leader that welding without a CWI is unacceptable and has written an internal NCR to document the non conformance and is working with ABFJV to ensure that production areas are being monitored for welding activity so CWIs are present. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000768R00;

Caltrans' comments:

Status: CLO

Date: 14-Sep-2010

The proposed resolution is acceptable. This NCR is considered closed.

Submitted by: Woo, Laraine

Date: 14-Sep-2010

Attachment(s):



No. B-870

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-09-06

REGARDING: NCR-000798(ZPMC-0760)

ZPMC acknowledged this problem and has issued an internal NCR. These unsatisfied welds have been removed, rewelded and were tested to be acceptable. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000798(ZPMC-0760)

B787-MT-26233

Jim W

9/6/10



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: 14-Jul-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: 05.03.06-000756

Subject: NCR No. ZPMC-0760

Reference Description: Incorrect WPS used on DP3126A Deck Panel

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 a random in process inspection of Orthotropic Box Girder (OBG) Deck Panel (DP) DP3126A, Quality Assurance (QA) discovered the following issue:

- ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) using a WPS that is not approved for the joint being welded.
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- OBG DP3126A is located in Bay #6.

Action Required and/or Action Taken:

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Transmitted by: Laraine Woo Transportation Engineer

Attachments: ZPMC-0760

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao, Bill Casey
File: 05.03.06

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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, China**Report No:** NCR-000798**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 13-Jul-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0760**Type of problem:**Welding Concrete Other Welding Curing Procedural **Bridge No:** 34-0006Joint fit-up Coating Other **Component:** DP3126A, 13AWProcedural Procedural Description:**Reference Description:** Incorrect WPS used on DP3126A Deck Panel**Description of Non-Conformance:**

During a random in process inspection of Orthotropic Box Girder (OBG) Deck Panel (DP) DP3126A, Quality Assurance (QA) discovered the following issue:

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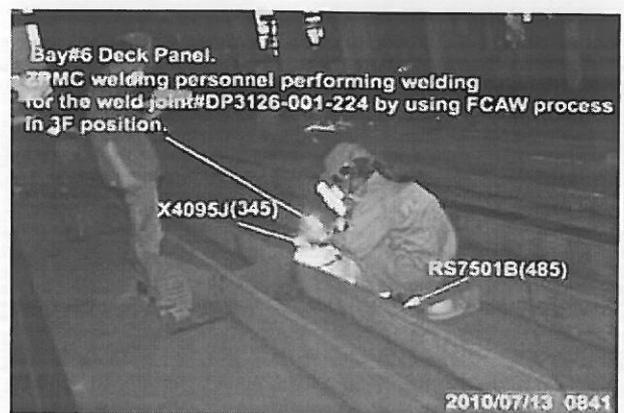
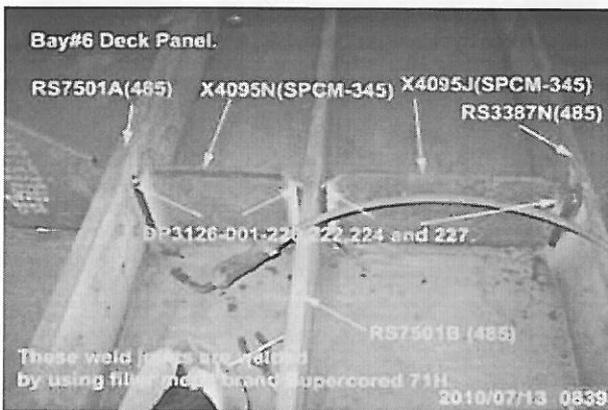
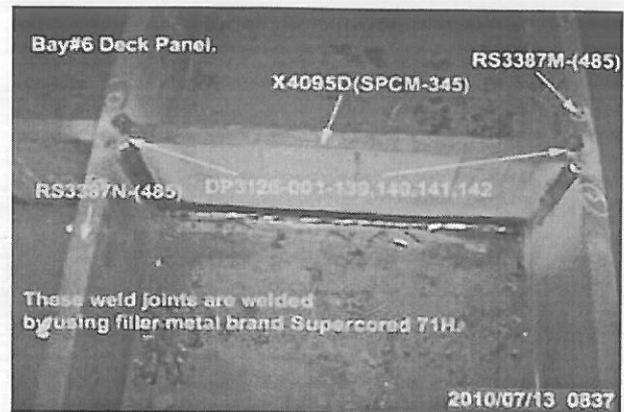
- OBG DP3126A is located in Bay #6.

- A video of this welder welding this DP has been put on the Caltrans server for review. It can be found under Team OBG//video archives//today's date.

For further information, please see the attached pictures.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

Special Provisions 8-3: The QC Inspector or CAWI shall inspect and approve each joint preparation, assembly practice, welding technique, joint fit-up, and the performance of each welder, welding operator, and tack welder to make certain that the applicable requirements of this code and the approved WPS are met.

Approved Welding Procedure Specification (WPS) WPS -B-T-4133 specifies the use of filler metal brand K-71TSR.

Who discovered the problem: Surendra Prabhu

Name of individual from Contractor notified: Liu Hua Jie

Time and method of notification: 0845 hours_07-13-10_Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 18:30_7/13/10_Email

QC Inspector's Name: Huang Min

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

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

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
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Reviewed By:	Wahbeh,Mazen	SMR
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REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 8787-MT-26233		DATE日期 2010.08.19		PAGE OF页码 1/1		Revision No: 0	
PROJECT NO. 工程编号: ZP06-787				CONTRACTOR: 用 户: CALTRANS			
DRAWING NO. 图号: DP3126B 13B-A2 DECK PLATE				CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4			
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. 28ST, 2010	
EQUIPMENT 设备 MT YOKE		MANUFACTURER 制造商 PARKER		MODEL NO. 样式编号 B310S		SERIAL NO. 连续编号 5395 5617 5620	
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-345F2-X-S A709M-HPS-485WT2-X-S 30/14mm	
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			
DP3126-001-139				ACC		100%MT
DP3126-001-140				ACC		100%MT
DP3126-001-141				ACC		100%MT
DP3126-001-142				ACC		100%MT
DP3126-001-149				ACC		100%MT
DP3126-001-150				ACC		100%MT
DP3126-001-153				ACC		100%MT
DP3126-001-154				ACC		100%MT
DP3126-001-220				ACC		100%MT
DP3126-001-222				ACC		100%MT
DP3126-001-224				ACC		100%MT
DP3126-001-227				ACC		100%MT

AFTER B-CWR1718

BLANK

EXAMINED BY主探 TanChaowei <i>TanChaowei</i>		REVIEWED BY 审核 <i>[Signature]</i>	
LEVEL - II SIGN 签名 / DATE日期		LEVEL-II SIGN / DATE日期 <i>[Signature]</i>	
质量经理 / QCM		用户CUSTOMER	
签字 SIGN / 日期 DATE		签字 SIGN / 日期 DATE	

(FORM# ZPQC-MT01)

NCR 490

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-000759**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 14-Sep-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0760**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: 13-Jul-2010**Description of Non-Conformance:**

During a random in process inspection of Orthotropic Box Girder (OBG) Deck Panel (DP) DP3126A, Quality Assurance (QA) discovered the following issue:

-ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) using a WPS that is not approved for the joint being welded.

-The welding was being performed to WPS-B-T-2133 which specifies A709-345 to A709-345 material using filler metal brand Supercored 71H Class E71T1.

-The material being welded was A709-Gr345 to A709-HPS-485W.

-The welds are fillet weld T-joints, joining Seismic Performance Critical Material (SPCM) diaphragms identified as X4095N and X4095J to Rib Stiffeners identified as RS7501A/B and RS3387N/M.

-Other joints not specified as SPCM include diaphragms identified as X4095D and X4083L welded to the same rib stiffeners.

-The weld joints are identified as DP3126-001-139~142,149,150,153,154,220,222,224 and 227.

- OBG DP3126A is located in Bay #6.

- A video of this welder welding this DP has been put on the Caltrans server for review. It can be found under Team OBG//video archives//today's date.

For further information, please see the attached pictures.

Contractor's proposal to correct the problem:

Remove and replace welds in question and perform NDT required to verify weld quality.

Corrective action taken:

Said welds were removed and replaced. Contractor has submitted subsequent NDT records verifying welds meet Contract weld quality requirements. An internal NCR was also issued in regards to this issue.

