

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 #: 04-0120F4
 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-000343
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 02-Jul-2009
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0317

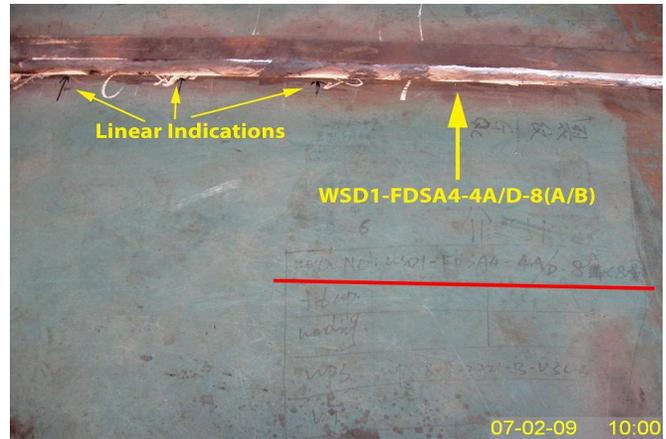
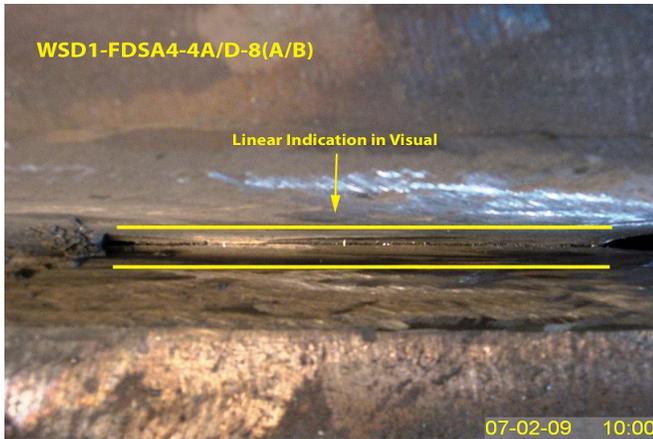
Type of problem:

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: West Shaft, Lift 4, Skin D
Procedural	Procedural	Description: Linear indications on tack welds	

Reference Description: Linear indications on tack welds of West Shaft, Lift 4, Skin D

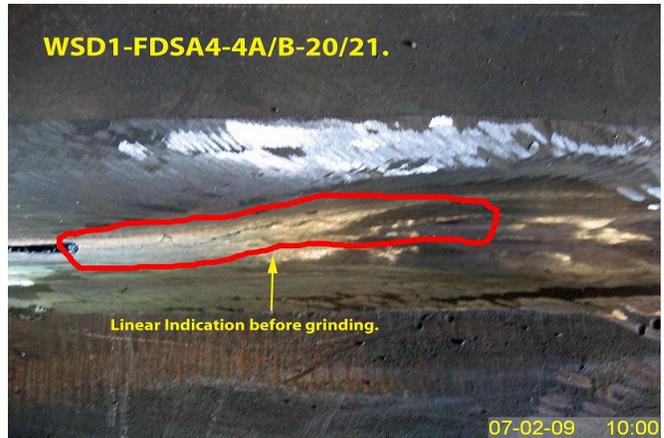
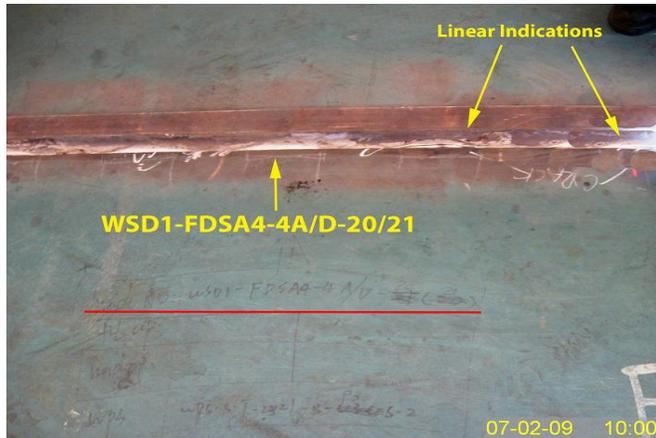
Description of Non-Conformance:

During in process Visual Inspection, QA discovered five linear indications on the tack welds of West Shaft, Lift 4, Skin D at weld joints WSD1-FDSA4-4A/D-8A/B and WSD1-FDSA4-4A/D-20/21. These welds were previously visually accepted by ZPMC QC personnel.



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



Applicable reference:

Special Provisions Section 8.3 – "Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents."

AWS D1.5-2002 Section 6.26.1 - "All welds shall be visually inspected. A weld shall be accepted visual inspection if it conforms to the following requirements:

6.26.1.1 The weld shall have no cracks."

AWS D1.5-2002 Section 3.3.7.1 - "Tack welds shall be subject to the same quality requirements as final welds."

Who discovered the problem: Amit K. Juvekar

Name of individual from Contractor notified: Steve Lawton

Time and method of notification: 7/2/2009, 11:15; Verbal

Name of Caltrans Engineer notified: Scott Kennedy

Time and method of notification: 7/6/2009, 8:00; Verbal

QC Inspector's Name: Li Xiuyang

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 Serge Sinevod, 134-8257-0045, who represents the Office of Structural Materials for your project.

Inspected By: Sinevod,Serge

ASMR

Reviewed By: Wahbeh,Mazen

SMR

NCT

(Continued Page 2 of 2)

Attachments: ZPMC-0317

cc: Rick Morrow, Gary Pursell, Mark Woods, Doug Coe

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000305

Subject: NCR No. ZPMC-0317

Dated: 13-Jul-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000257 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has responded to the NCR and has attached the necessary documents for closure. ZPMC requests closure of this NCR.

ZPMC has responded to the NCR and has attached the necessary documents for closure. ZPMC requests closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000257R00;

Caltrans' comments:

Status: CLO

Date: 06-Aug-2009

The proposed resolution is acceptable. The welding inspectors have received additional training, and tests have been administered to ZPMC technicians to demonstrate their ability to detect indications. Also, the welds in question have been accepted by MT as shown in the attached documents. The Department concurs that Non-Conformance ZPMC-0317 is closed.

Submitted by: Wright, Doug

Date: 06-Aug-2009

Attachment(s):



PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 07/09/2009

TO: ROSE MARY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: CT NCR FOR CLOSURE

Prevention

SUBMITTED FOR YOUR APPROVAL.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE WITH NO.T-035 FOR CLOSURE.
- (2) COPY OF CT NCR NCR-000343 (ZPMC-0317)
- (3) COPY OF REPORT OF MAGNETIC PARTICLE EXAMINATION T787-MT-4841, T787-MT-4908 PHOTOS

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:

Rosemary

 PLAN HOLDER

9:15
 RECEIVED 09 III 2009

 DATE

© 2009

 COMPANY

 PHONE NO.

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



No. T-035

LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2009-7-8

REGARDING: NCR-000343 ZPMC-0317

ZPMC received NCR-000343(ZPMC-0317), the original contents is: "During in process visual inspection, QA discovered five linear indications on the tack welds of west shaft, lift 4 skin D at weld joints WSD1-FDSA4-4A/D-8A/B and WSD1-FDSA4-4A/D-20/21. These welds were previously visually accepted by ZPMC QC personnel."

About this situation we ZPMC at the first time remove the cracks and did the MT work to make sure remove them , and we informed CT people to witness them before welding .

So ZPMC hope Caltrans can take a review and close this NCR.

ATTACHMENT:

**REPORT OF MAGNETIC PARTICLE EXAMINATION T787-MT-4841, T787-MT-4908
PHOTOES**



Zixiang

07.7.9

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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-000343

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 02-Jul-2009

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

NCR #: ZPMC-0317

Type of problem:

Welding **Concrete** **Other**

Welding **Curing** **Procedural**

Bridge No: 34-0006

Joint fit-up **Coating** **Other**

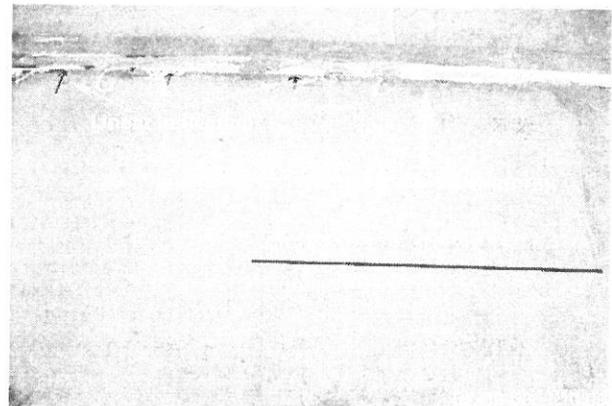
Component: West Shaft, Lift 4, Skin D

Procedural **Procedural** **Description:** Linear indications on tack welds

Reference Description: Linear indications on tack welds of West Shaft, Lift 4, Skin D

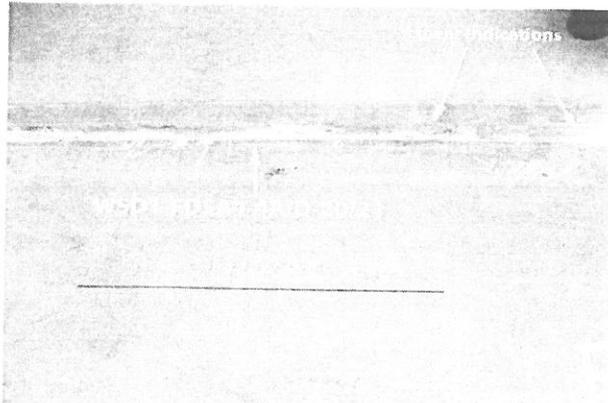
Description of Non-Conformance:

During in process Visual Inspection, QA discovered five linear indications on the tack welds of West Shaft, Lift 4, Skin D at weld joints WSD1-FDSA4-4A/D-8A/B and WSD1-FDSA4-4A/D-20/21. These welds were previously visually accepted by ZPMC QC personnel.



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



Applicable reference:

Special Provisions Section 8.3 – "Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents."

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QC Inspector's Name: Li Xiuyang

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

Comments:

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Inspected By: Sinevod, Serge

ASMR

Reviewed By: Wahbeh, Mazen

SMR



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 T787-MT-4841		DATE日期 2009.07.02		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: WSD1-FDSA4-4A/D Tower(W) 4th lifting skin D			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. 28 ST , 2009			
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5620 5395 5617			
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-Z 90/60mm			
WELDING PROCESS 焊接方法	SMAW	TYPE OF JOINT 焊缝类型	BUTT			
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			
WSD1-FDSA4-4A/D-20				ACC.		tack welding
WSD1-FDSA4-4A/D-22				ACC.		tack welding
WSD1-FDSA4-4A/D-24				ACC.		tack welding
WSD1-FDSA4-4A/D-8A				ACC.		tack welding
BLANK						
EXAMINED BY主探 Fu Zhiqiang <i>Fu Zhiqiang</i>			REVIEWED BY 审核 <i>Xu Hai</i>			
LEVEL - II SIGN 签名 / DATE日期 <i>09.07.02</i>			LEVEL-II SIGN / DATE日期 <i>09.7.2</i>			
质量经理 / QCM			用户CUSTOMER			
签字 SIGN / 日期 DATE			签字 SIGN / 日期 DATE			



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 T787-MT-4908 DATE日期 2009.07.02 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: WSD1-FDSA4-4A/D skin D		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. 28 ST , 2009
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5620 5395 5617
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-Z 90/60mm
WELDING PROCESS 焊接方法	NA	TYPE OF JOINT 焊缝类型	NA

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			
WSD1-FDSA4-4A/D				ACC.		material
BLANK						

EXAMINED BY主探 Fu Zhiqiang <i>Fu Zhiqiang</i>	REVIEWED BY 审核 <i>Xu Hai</i>
LEVEL - II SIGN 签名 / DATE日期 <i>09.07.02</i>	LEVEL-II SIGN / DATE日期 <i>09.7.2</i>
质量经理 / QCM	用户CUSTOMER
签字 SIGN / 日期 DATE	签字 SIGN / 日期 DATE

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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-000238**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 05-Aug-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0317**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: 02-Jul-2009**Description of Non-Conformance:**

During in process Visual Inspection, QA discovered five linear indications on the tack welds of West Shaft, Lift 4, Skin D at weld joints WSD1-FDSA4-4A/D-8A/B and WSD1-FDSA4-4A/D-20/21. These welds were previously visually accepted by ZPMC QC personnel.

Contractor's proposal to correct the problem:

Repair affected tack welds.

Corrective action taken:

The affected welds have been repaired and a NDT report indicating sound welds has been submitted. The welds have been verified by QA.

To resolve the recurring failure for QC to detect MT indications, ABF has held verbal interviews with ZPMC QC and MT technicians on several occasions. ABF has requested ZPMC to provide an analysis of missed indications to determine if they can be traced to a personnel trend, such as an inspector, welder, or weld location. ABF has also informed ZPMC to ensure adequate lighting is provided during inspections. Tests have also been administered to ZPMC MT technicians to demonstrate their ability to detect MT indications.

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:**

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Inspected By: Sinevod, Serge

Quality Assurance Inspector

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Reviewed By: Wahbeh,Mazen

QA Reviewer