

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



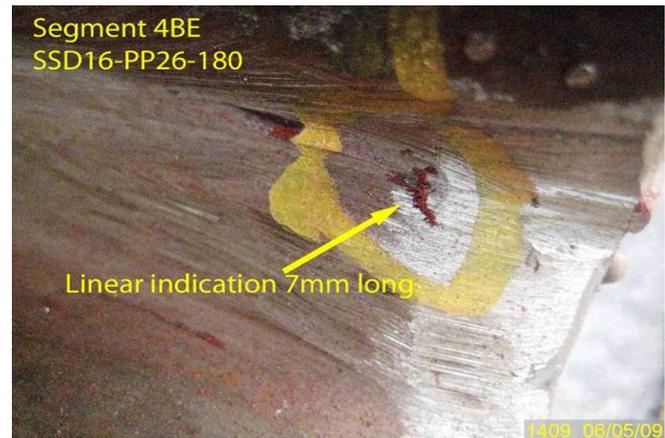
Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCR-000315**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 05-Jun-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0289**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: OBG Segment 4BE
Procedural	Procedural	Description:	

Reference Description: Missed MT Indications by QC, Segment 4BE**Description of Non-Conformance:**

During random verification magnetic particle testing (MT) of the internal components of OBG Segment 4BE, Caltrans Quality Assurance (QA) Inspector discovered a total of four (4) linear indications ranging from 7 to 10mm in length in the following welds: SSD16-PP26-168, SSD16-PP26-180, SSD16-PP26-177 and SSD16-PP26-172. These welds have been previously tested and accepted by ZPMC Quality Control MT technicians.

**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 (02) Section 6.26.2 – “Welds that are subject to MT in addition to visual inspection shall have no cracks.”

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Who discovered the problem: Hiranch Patel
Name of individual from Contractor notified: Kevin Chen
Time and method of notification: 1600 hours, 06/05/09, Verbal
Name of Caltrans Engineer notified: Stanley Ku
Time and method of notification: 800 hours, 06-08-09, Verbal
QC Inspector's Name: Wang Lu
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 Skyler Guest, (86) 1500.042.2360, who represents the Office of Structural Materials for your project.

Inspected By:	Guest, Skyler	SMR
Reviewed By:	Wahbeh, Mazen	SMR



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
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, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 14-Jun-2009

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: 05.03.06-000277

Subject: NCR No. ZPMC-0289

Reference Description: Missed MT Indications by QC, Segment 4BE

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:** 04

Remarks:

During random verification magnetic particle testing (MT) of the internal components of OBG Segment 4BE, Caltrans Quality Assurance (QA) Inspector discovered a total of four (4) linear indications ranging from 7 to 10mm in length in the following welds: SSD16-PP26-168, SSD16-PP26-180, SSD16-PP26-177 and SSD16-PP26-172. These welds have been previously tested and accepted by ZPMC Quality Control MT technicians.
See NCR report No. ZPMC-289 for details.

Action Required and/or Action Taken:

Propose a resolution for the identified recurring non-conformance which constitutes a systematic problem in quality control with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 14 days.

Transmitted by: Ching Chao

Attachments: ZPMC-0289

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Doug Coe, Jason Tom, Contract Files, 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: 05.03.06-000277

Subject: NCR No. ZPMC-0289

Dated: 07-Aug-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000283 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has responded to this NCR and has attached documents as evidence of completion. ZPMC requests closure of this NCR.

ZPMC has responded to this NCR and has attached documents as evidence of completion. ZPMC requests closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000283R00;

Caltrans' comments:

Status: REJ

Date: 20-Aug-2009

The proposed resolution is not acceptable. The attached documentation includes MT reports for some, but not all, of the welds listed in the Non-Conformance.

Please submit acceptable MT reports for welds SSD16-PP26-168 and SSD16-PP26-177. The Department will review the Contractor's proposal to close Non-Conformance ZPMC-0289 at that time.

Submitted by: Wright, Doug

Date: 20-Aug-2009

Attachment(s):



No. B-436

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2009-8-6

REGARDING: NCR-000315(ZPMC-0289)

With this letter of response, ZPMC requests closure for Caltrans **NCR-000315 (ZPMC-0289)**. We agree what describe in the non-conformance report, and we have instructed QC guy who in charge of the MT inspection. We have made an evaluation to find the real reason for the miss-discovery. And more attention that slow down with the inspect speed and enhance training technology and skill.

By the way we have conduct the VT and NDT re-inspection to confirm the good quality of the corresponding weld in the NCR after welding repair, so base on the above explanation and attached documentations, ZPMC applies to close the caltrans's report **NCR-000315 (ZPMC-0289)**.

Please reference attached documentation for acceptance and closure the **NCR-000315(ZPMC-0289)**.

ATTACHMENT:

NCR-000315(ZPMC-0289)

The final VT/MT inspection report

Zhao Shuangbao

2009. 8. 6



Nonconformance Report

不符合项报告

Project Name: S.F.O.B.B
 项目名称: 美国加州海湾大桥

NCR Number:
 NCR 编号: NCR-B-194 (NCR-00289)

Item: Missed MT Indication by QC
 Item Number:
 Drawing: 4BE

名称描述:
 件号: N/A
 图号:

Location:
 位置: 4BE

Date:
 日期: 2009-06-20

Description of Nonconformance:
 不符合项状态描述:

During random verification magnetic particle testing of the internal components of OBG Segment 4BE, Caltrans Quality Assurance Inspector discovered a total of four linear indications ranging from 7 to 10mm in length in the following welds:SSD16-PP26-168,SSD16-PP26-180,SSD16-PP26-177 and SSD16-PP26-172.These welds have been previously tested and accepted by ZPMC Quality Control MT technicians.

在对 OBG4BE 梁段做 MT 抽检时, 加州检验员发现总共四处 7 到 10MM 长不等的裂纹, SSD16-PP26-168, SSD16-PP26-180,SSD16-PP26-177 and SSD16-PP26-172.之前这些焊缝 ZPMC QC 已经做过 MT, 但并未发现任何问题.

Work By: Liliming Prepared by: Wang Reviewed by QCE: Wangshuangbao
 施工方: Liliming 准备: Wang 质量工程师批准: Wangshuangbao

Drawing Error Material Defect Fabrication Error Other 6.20
 图纸错误 材料缺陷 制作错误 其他原因

Disposition: Use as is Repair Reject
 处理措施: 回用 返修 拒收

Recommendation:
 建议: 重新确认该缺陷, 并分析未检出原因, 返修.
Confirm the defect, and analyze reason then repair.

Prepared by: Liliming Approved by QCA: _____
 准备 质量经理批准

Reason for Nonconformance:
 不符合原因: 裂纹未检出
Discover cracks.

预防措施: 加强技能和责任人培训 | Enhance training technology and skill.
 Approved by/批准: Liliming 6.20

Technical Justification for Use-As-Is/Repair: Attachment Non-attachment
 回用或返修的技术依据:

附件 无附件

Reviewed /批准: _____

Verification: Acceptable Unacceptable
 确认: 可接受 不可接受

Verified by QCI/质检确认: _____ Reviewed by QCA/质检主任审核: _____

DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
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, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 14-Jun-2009

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: 05.03.06-000277

Subject: NCR No. ZPMC-0289

Reference Description: Missed MT Indications by QC, Segment 4BE

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: 04

Remarks:

During random verification magnetic particle testing (MT) of the internal components of OBG Segment 4BE, Caltrans Quality Assurance (QA) Inspector discovered a total of four (4) linear indications ranging from 7 to 10mm in length in the following welds: SSD16-PP26-168, SSD16-PP26-180, SSD16-PP26-177 and SSD16-PP26-172. These welds have been previously tested and accepted by ZPMC Quality Control MT technicians.

See NCR report No. ZPMC-289 for details.

Action Required and/or Action Taken:

Propose a resolution for the identified recurring non-conformance which constitutes a systematic problem in quality control with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 14 days.

Transmitted by: Ching Chao

Attachments: ZPMC-0289

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

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, P.R. China

Report No: NCR-000315

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 05-Jun-2009

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

NCR #: ZPMC-0289

Type of problem:

Welding Concrete Other

Welding Curing Procedural Bridge No: 34-0006

Joint fit-up Coating Other Component: OBG Segment 4BE

Procedural Procedural Description:

Reference Description: Missed MT Indications by QC, Segment 4BE

Description of Non-Conformance:

During random verification magnetic particle testing (MT) of the internal components of OBG Segment 4BE, Caltrans Quality Assurance (QA) Inspector discovered a total of four (4) linear indications ranging from 7 to 10mm in length in the following welds: SSD16-PP26-168, SSD16-PP26-180, SSD16-PP26-177 and SSD16-PP26-172. These welds have been previously tested and accepted by ZPMC Quality Control MT technicians.



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 (02) Section 6.26.2 – “Welds that are subject to MT in addition to visual inspection shall have no cracks.”

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Who discovered the problem: Hiranch Patel
Name of individual from Contractor notified: Kevin Chen
Time and method of notification: 1600 hours, 06/05/09, Verbal
Name of Caltrans Engineer notified: Stanley Ku
Time and method of notification: 800 hours, 06-08-09, Verbal
QC Inspector's Name: Wang Lu
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 Skyler Guest, (86) 1500.042.2360, who represents the Office of Structural Materials for your project.

Inspected By:	Guest, Skyler	SMR
Reviewed By:	Wahbeh, Mazen	SMR



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-12754		DATE日期 2009.07.29		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: OBE4 OBG PLATE PANEL SPLICE			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 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-345 22/18mm			
WELDING PROCESS 焊接方法	SMAW.FCAW	TYPE OF JOINT 焊缝类型	CORNER-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			
SSD16-PP26-172				ACC.		100%MT
SSD16-PP26-180				ACC.		100%MT
BLANK						
EXAMINED BY主探 Jin Jianting <u>Jin Jianting</u> LEVEL - II SIGN 签名 / DATE日期 <u>07.27.09</u>			REVIEWED BY 审核 <u>Sun Gongchang</u> LEVEL-II SIGN / DATE日期 <u>07.27.09</u>			
质量经理 / QCM <u>Cujianting</u> 签字 SIGN / 日期 DATE <u>7.27</u>			用户 CUSTOMER <u>Cujianting</u> 签字 SIGN / 日期 DATE <u>7.27</u>			

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000277

Subject: NCR No. ZPMC-0289

Dated: 14-Sep-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000283 **Rev:** 01

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has attached supporting documents of inspection and requests closure of this NCR.
ZPMC has attached supporting documents of inspection and requests closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000283R01;

Caltrans' comments:

Status: REJ

Date: 24-Sep-2009

Submitted MT report covering all welds in question, but did not submit CWR as requested previously.
Please provide CWR documenting repair was performed.

Submitted by: Chao, Ching

Date: 24-Sep-2009

Attachment(s):



No. B-468

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2009-9-10

REGARDING: NCR-000315 (ZPMC-0289)

With this letter of response, ZPMC requests closure for Caltrans NCR-000315 (ZPMC-0289). Per the comments of NPR, we are providing the acceptable MT reports for the welds SSD16-PP26-168 and SSD16-PP26-177, please revised the proposal and turn to the CT engineer.

so base on the above explanation, ZPMC applies to close the caltrans's report NCR-000315 (ZPMC-0289).

Please reference attached document for acceptance and closure the NCR-000315 (ZPMC-0289).

ATTACHMENT:

NCR-000315 (ZPMC-0289)

The complete MT reports

zhaoshuangbao

2009.9.10

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, P.R. China

Report No: NCR-000315

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 05-Jun-2009

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

NCR #: ZPMC-0289

Type of problem:

Welding Concrete Other

Welding Curing Procedural

Joint fit-up Coating Other

Procedural Procedural Description:

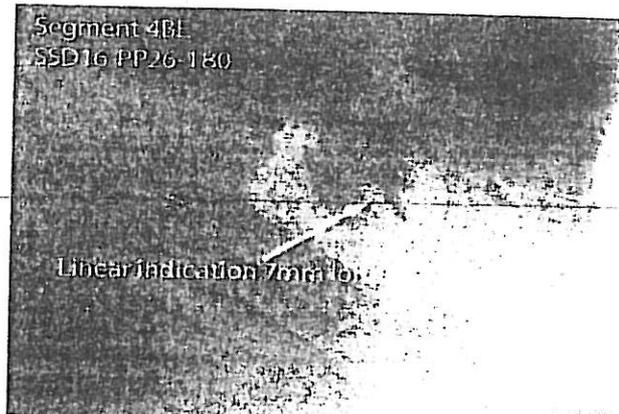
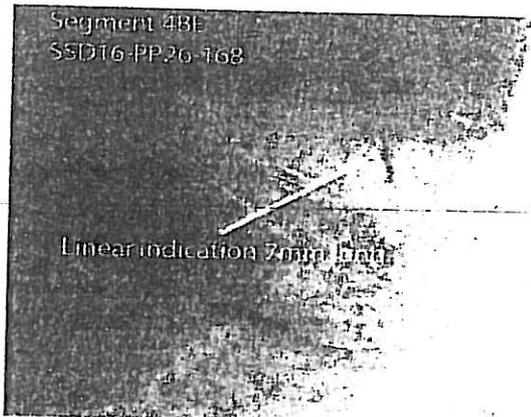
Bridge No: 34-0006

Component: OBG Segment 4BE

Reference Description: Missed MT Indications by QC, Segment 4BE

Description of Non-Conformance:

During random verification magnetic particle testing (MT) of the internal components of OBG Segment 4BE, Caltrans Quality Assurance (QA) Inspector discovered a total of four (4) linear indications ranging from 7 to 10mm in length in the following welds: SSD16-PP26-168, SSD16-PP26-180, SSD16-PP26-177 and SSD16-PP26-172. These welds have been previously tested and accepted by ZPMC Quality Control MT technicians.



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 (02) Section 6.26.2 – “Welds that are subject to MT in addition to visual inspection shall have no cracks.”



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-12613		DATE日期 2009.07.29	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: OBE4 OBG FLOOR BEAM I-RIB		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 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-345 18/22mm	
WELDING PROCESS 焊接方法	SMAW/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			
SSD16-PP26-168				ACC.		100%MT
SSD16-PP26-169				ACC.		100%MT
SSD16-PP26-174				ACC.		100%MT
SSD16-PP26-175				ACC.		100%MT
SSD16-PP26-177				ACC.		100%MT
SSD16-PP26-178				ACC.		100%MT

AFTER HSR1(B)-6988

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EXAMINED BY主探 Jin Jianting <i>Jin Jianting</i>	REVIEWED BY 审核 <i>Sun Guangchang</i>
LEVEL - II SIGN 签名 / DATE日期 <i>09.7.29</i>	LEVEL-II SIGN / DATE日期 <i>09.7.29</i>
质量经理 / QCM <i>[Signature]</i>	用户CUSTOMER
签字 SIGN / 日期 DATE <i>09.7.29</i>	签字 SIGN / 日期 DATE

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000277

Subject: NCR No. ZPMC-0289

Dated: 16-Oct-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000283 **Rev:** 02

Contractor's Proposed Resolution:

Reference Resolution: Documentation supporting successful repair of the indications by welding and NDT results is attached.

Documentation supporting successful repair of the indications by welding and NDT results is attached. Attached is WRR for work performed, a CWR was not required. VT reports were previously submitted as attachments to ABF-NPR-000283R0 and to ABF-NPR-000283R1.

Caltrans' NCT 05.05.06-000277 requested steps taken by ABFJV QCM to prevent future occurrences of missed indications. ABFJV QCM has implemented training with ZPMC to improve the quality of inspections. ABFJV will provide documentation showing attendance by ZPMC QC inspectors and the subject of training. Topics to be covered during the instruction are: inspection of equipment prior to use, proper conditions for inspection, proper technique for MT, and UT. In addition, ABFJV has committed to perform overchecks in both the Tower and OBG. This will serve two purposes, first to monitor if the training is effective at reducing the number of missed indications and second to ensure missed indications are prevented.

Submitted by:

Attachment(s): ABF-NPR-000283R02;

Caltrans' comments:

Status: CLO

Date: 29-Oct-2009

The the documentation supporting successful repair of the indications by welding and NDT results were found acceptable. However, the CWR was required in lieu of the WRR submitted. In the future, please submit a CWR for review and approval prior to the repair.

Submitted by: Chao, Ching

Date: 29-Oct-2009

Attachment(s):



No. B-480

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2009-10-16

REGARDING: NCR-000315 (ZPMC-0289)

With this letter of response, ZPMC requests closure for Caltrans NCR-000315 (ZPMC-0289). Per the comments of NPR, we are providing the weld repair report to prove the weld which been performed the repair and all accepted by the NDT inspection. Please turn to the engineer review and apply to close out the NCR.

so base on the above explanation, ZPMC applies to close the caltrans's report NCR-000315 (ZPMC-0289).

Please reference attached document for acceptance and closure the NCR-000315 (ZPMC-0289).

ATTACHMENT:

NCR-000315 (ZPMC-0289)

The weld repair report

Wu Shuangbao

2009.10.16



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
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, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 14-Jun-2009

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: 05.03.06-000277

Subject: NCR No. ZPMC-0289

Reference Description: Missed MT Indications by QC, Segment 4BE

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: 04

Remarks:

During random verification magnetic particle testing (MT) of the internal components of OBG Segment 4BE, Caltrans Quality Assurance (QA) Inspector discovered a total of four (4) linear indications ranging from 7 to 10mm in length in the following welds: SSD16-PP26-168, SSD16-PP26-180, SSD16-PP26-177 and SSD16-PP26-172. These welds have been previously tested and accepted by ZPMC Quality Control MT technicians.

See NCR report No. ZPMC-289 for details.

Action Required and/or Action Taken:

Propose a resolution for the identified recurring non-conformance which constitutes a systematic problem in quality control with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 14 days.

Transmitted by: Ching Chao

Attachments: ZPMC-0289

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

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
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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, P.R. China

Report No: NCR-000315

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 05-Jun-2009

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

NCR #: ZPMC-0289

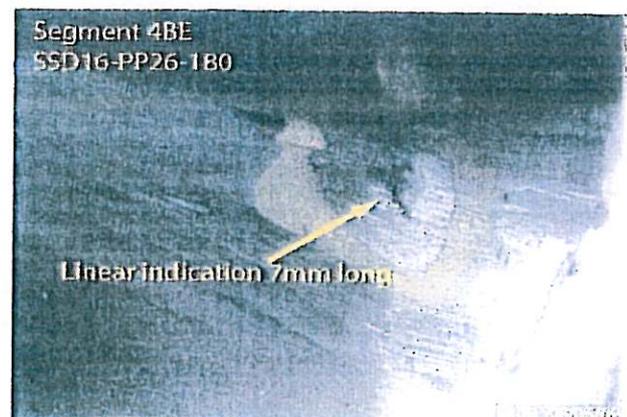
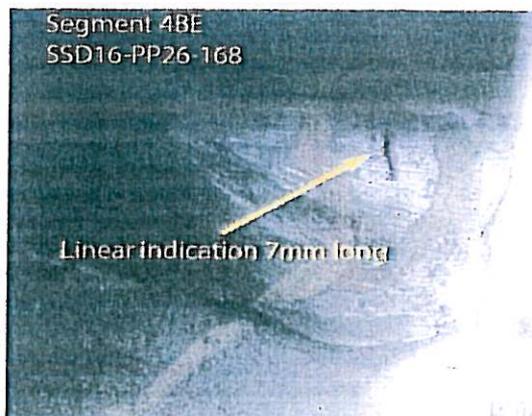
Type of problem:

Welding Concrete Other
Welding Curing Procedural Bridge No: 34-0006
Joint fit-up Coating Other Component: OBG Segment 4BE
Procedural Procedural Description:

Reference Description: Missed MT Indications by QC, Segment 4BE

Description of Non-Conformance:

During random verification magnetic particle testing (MT) of the internal components of OBG Segment 4BE, Caltrans Quality Assurance (QA) Inspector discovered a total of four (4) linear indications ranging from 7 to 10mm in length in the following welds: SSD16-PP26-168, SSD16-PP26-180, SSD16-PP26-177 and SSD16-PP26-172. These welds have been previously tested and accepted by ZPMC Quality Control MT technicians.



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 (02) Section 6.26.2 – “Welds that are subject to MT in addition to visual inspection shall have no cracks.”

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Who discovered the problem: Hiranch Patel
Name of individual from Contractor notified: Kevin Chen
Time and method of notification: 1600 hours, 06/05/09, Verbal
Name of Caltrans Engineer notified: Stanley Ku
Time and method of notification: 800 hours, 06-08-09, Verbal
QC Inspector's Name: Wang Lu
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 Skyler Guest, (86) 1500.042.2360, who represents the Office of Structural Materials for your project.

Inspected By:	Guest, Skyler	SMR
Reviewed By:	Wahbeh, Mazen	SMR



焊缝返修报告

版本 Rev. No.

Welding Repair Report

0

项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No	SSD16	报告编号 Report No.	B-WR7355
合同号 Contract No.:	04-0120F4	部件名称 Items Name	4E PLATE PANEL SPLICE	NDT报告编号 Report No.of NDT	B787-MT-13664
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述:

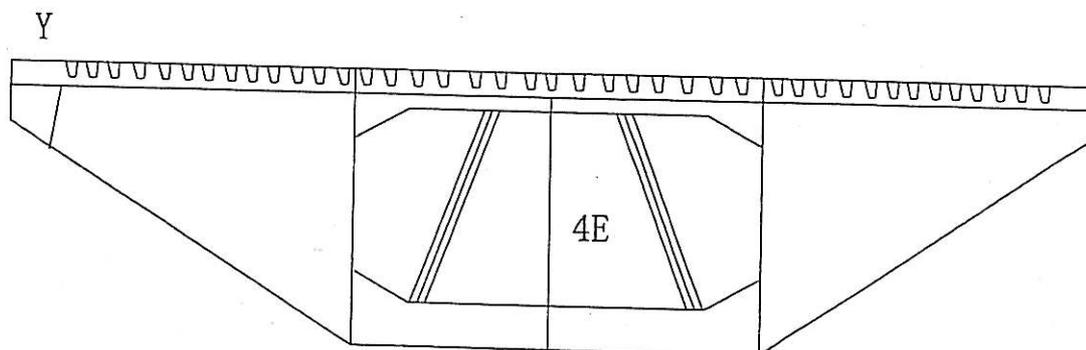
Description of welding discontinuity:

- One line indication was found by use of MT on weld SSD16-PP26-168. L=7 720
- One line indication was found by use of MT on weld SSD16-PP26-180. L=7 720
- One line indication was found by use of MT on weld SSD16-PP26-177. L=8 720
- One line indication was found by use of MT on weld SSD16-PP26-172. L=10 720

检验员 (Inspector): Jin Jian ting 日期(Date): 09.07.26

焊缝返修位置示意图:

Draft of welding discontinuity:



产生原因:

Caused:

1、焊道未及时处理干净。

1. Did not clear the weld pass completely in time.

车间负责人(Foreman): *Lizhi gang* 日期(Date): *09.09.12*

处理意见

Disposition :

1. 按照焊接返修工艺规程 (WPS) 打磨缺陷区域;
2. 按照返修WPS准备焊接破口;
3. 返修前对进行返修的区域作100%MT检查, 确保缺陷全部去除;
4. 根据批准的焊接返修工艺规程 (WPS) 进行预热及焊接;
5. 将焊接区域打磨至与周围母材平齐;
6. 对修补区域进行VT与MT检测;

1. Remove all the defects according to the approved repair WPS by means of grinding.
2. Prepare a groove based on the repair WPS.
3. Verify with MT and VT no defects remain in the repair area prior to welding;
4. Preheat and weld according to the relevant WPS.
5. Grind the weld flush with adjacent base metal after welding.
6. Perform VT and MT inspection to the repaired area.

工艺: *Hexiaolin*
Technical engineer
09.09.12

审核:
Approved by

Lizhi gang 日期
Date *9.12*



焊缝返修报告

Welding Repair Report

版本 Rev. No.

0

项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No	SSD16	报告编号 Report No.	B-WR7355
合同号 Contract No.:	04-0120F4	部件名称 Items Name	4E PLATE PANEL SPLICE	NDT报告编号 Report No. of NDT	B787-MT-13664
项目编号 Project No.:	ZP06-787				

纠正措施:

Correction action to prevent re occurrence:

1. 加强焊接监控和道间清理。

1. Improve monitoring of welding and interpass cleaning.

车间负责人(Foreman): *Lizhiyong* 日期(Date): 09.09.12

参照的WPS编号 Repair WPS No.	WPS-345-SMAW-2 G(2F)-FCM-Repair WPS-345-FCAW-2 G(2F)-FCM-Repair WPS-345-SMAW-4 G(4F)-FCM-Repair	工艺员 technologist	<i>Hexiaolin</i> <i>09.09.12</i>
返修(碳刨)前预热温度 Preheat temperature before gouging	NA <i>NA</i>	返修的缺陷 Description of discontinuity	<i>Crack</i>
焊前处理检查 Inspection before welding	<i>Am</i>	焊前预热温度 Preheat temperature before welding	<i>67°C</i>
最大碳刨深度 Max. depth of gouging	<i>NA</i>	碳刨总长 Total length of gouging	<i>180mm</i>
焊工 welder <i>045133</i>	焊接类型 welding type <i>SMAW</i>	焊接位置 position	<i>2G</i>
焊接电流 Current <i>164</i>	焊接电压 Voltage <i>23.7</i>	焊接速度 Speed	<i>115</i>

返修后检查

Inspection After repairing:

外观检查 VT result <i>Am</i>	检验员 Inspector <i>Li Yanhua</i> <i>07120701</i>	日期 Date <i>09.09.13</i>
NDT复检 NDT result <i>Acc</i>	探伤员 NDT person <i>Jin Jianling</i>	日期 Date <i>09.09.13</i>

见证:

Witness/Review:

备注:

Remark:



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-13664R1 DATE日期 2009.09.13 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: SSD16 OBG 4E PLATE PANEL SPLICE		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 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-345 18/22 mm
WELDING PROCESS 焊接方法	SMAW	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			
SSD16-PP26-168	1R1			ACC.		
SSD16-PP26-177	1R1			ACC.		
SSD16-PP26-180	1R1			ACC.		
SSD16-PP26-172	1R1			ACC.		

AFTER B-WR7355

BLANK

EXAMINED BY 主探 Jin Jianting <i>Jin Jianting</i> 09.09.13	REVIEWED BY 审核 <i>Sun Guo cheng</i> 09.09.13
LEVEL - II SIGN 签名 / DATE 日期 <i>Lu Jianting</i>	LEVEL-II SIGN / DATE 日期 <i>Sun Guo cheng</i>
质量经理 / QCM <i>Lu Jianting</i>	用户 CUSTOMER
签字 SIGN / 日期 DATE 9.13	签字 SIGN / 日期 DATE

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

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(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, P.R. China**Report No:** NCS-000359**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:****Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0289**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: 05-Jun-2009**Description of Non-Conformance:**

During random verification magnetic particle testing (MT) of the internal components of OBG Segment 4BE, Caltrans Quality Assurance (QA) Inspector discovered a total of four (4) linear indications ranging from 7 to 10mm in length in the following welds: SSD16-PP26-168, SSD16-PP26-180, SSD16-PP26-177 and SSD16-PP26-172. These welds have been previously tested and accepted by ZPMC Quality Control MT technicians.

Contractor's proposal to correct the problem:

Repair missed NDT indications and perform required NDT.

Corrective action taken:

ZPMC performed repairs to the welds in question and submitted documentation verifying that the repairs are in conformance. ABF has implemented training for NDT technicians covering inspection of NDT equipment, proper conditions for inspection and technique, as well as hired additional NDT technicians.

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 Jim Simonis, who represents the Office of Structural Materials for your project.

Inspected By: Simonis, Jim

Quality Assurance Inspector

Reviewed By: Wahbeh, Mazen

QA Reviewer