

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

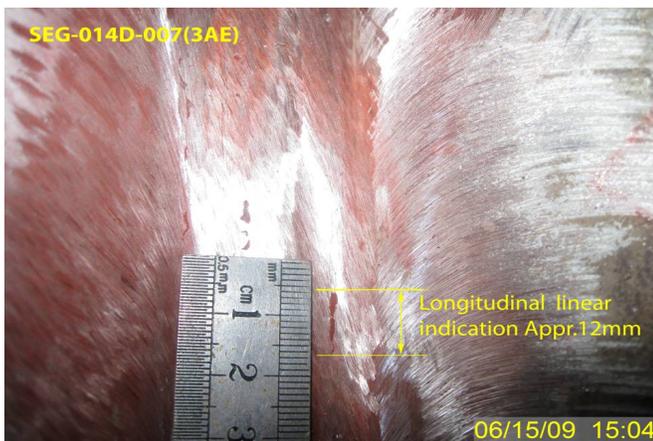
Quality Assurance and Source Inspection



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-000327**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 15-Jun-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0301**Type of problem:****Welding****Concrete****Other****Welding****Curing****Procedural****Bridge No:** 34-0006**Joint fit-up****Coating****Other****Component:** OBG Segment 3AE**Procedural****Procedural****Description:****Reference Description:** Missed MT Indication by QC, Weld #SEG-014D-007, Segment 3AE**Description of Non-Conformance:**

Caltrans Quality Assurance (QA) Inspector performed 15% verification magnetic particle testing (MT) on weld joint SEG-014D-007 for segment 3AE. QA Inspector discovered one rejectable longitudinal linear indication measuring approximately 12 mm in length. This weld was previously tested and accepted by ZPMC Quality Control (QC) 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: Subhasis Bera
Name of individual from Contractor notified: Kevin Chen
Time and method of notification: 06.15.2009, 15:00, Verbal
Name of Caltrans Engineer notified: Stanley Ku
Time and method of notification: 06.16.2009, 8:00, 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: 22-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: 05.03.06-000291

Subject: NCR No. ZPMC-0301

Reference Description: Missed MT Indication by QC, Weld #SEG-014D-007, Segment 3AE

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:** 03

Remarks:

Caltrans Quality Assurance (QA) Inspector performed 15% verification magnetic particle testing (MT) on weld joint SEG-014D-007 for segment 3AE. QA Inspector discovered one rejectable longitudinal linear indication measuring approximately 12 mm in length. This weld was previously tested and accepted by ZPMC Quality Control (QC) MT technicians.

See attached NCR No. ZPMC-301 for details.

Action Required and/or Action Taken:

Propose a resolution for the identified recurring non-conformance which constitutes a systematic problem on both materials/workmanship and quality control issues to remedy the defected work and 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-0301

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: 05.03.06-000291

Subject: NCR No. ZPMC-0301

Dated: 04-Aug-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000279 **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-000279R00;

Caltrans' comments:

Status: CLO

Date: 10-Aug-2009

The proposed resolution is acceptable. The welding inspectors have received additional training, and tests have been administered to ZPMC MT technicians to demonstrate their ability to detect MT indications. Also, the weld in question has been accepted by MT as shown in the attached documents. The Department concurs that Non-Conformance ZPMC-0301 is closed.

Submitted by: Wright, Doug

Date: 10-Aug-2009

Attachment(s):



No. B-431

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2009-8-3

REGARDING: NCR-000327 (ZPMC-0301)

With this letter of response, ZPMC requests closure for Caltrans NCR-000327 (ZPMC-0301). We agree what describe in the non-conformance report, and instructed the QC guy to enhance the responsibility and reduce the working speed, and make a calibration for all MT machines witnessed by ABF, to make sure that not cause missed indication for the false of machine.

By the way we have performed the MT inspection to re-check the areas after weld repair, right now submit the report to support the good quality of the repair areas.

So base on the above explanation and attached documentations, ZPMC applies to close the caltrans's report NCR-000327 (ZPMC-0301).

Please reference attached documentation for acceptance and closure the NCR-000327 (ZPMC-0301).

ATTACHMENT:

NCR-000327 (ZPMC-0301)

ZPMC internal NCR

The final MT reports

A handwritten signature in cursive script, appearing to read 'Zhao Shuangbao', is written below the attachment list.

2009.8.3



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-204
 (NCR-000327)

Item: Missed MT indication by QC
 名称描述: MT 漏检

Item Number:
 件号: N/A

Drawing:
 图号: 3AE

Location: OBG Trial Assembly Yard
 位置: OBG 总拼外场

Date:
 日期: 2009-07-01

Description of Nonconformance:

不符合项状态描述:

Caltrans Quality Assurance Inspector performed 15% verification magnetic particle testing on weld joint SEG014D-007 for segment 3AE. QA inspector discovered one rejectable longitudinal linear indication measuring approximately 12mm length. This weld was previously tested and accepted by ZPMC Quality control MT technician.

加州在 3AE 进行 15% 的 MT 检测时, 在 SEG014D-007 上发现 12mm 长的线性缺陷。此焊缝之前已被 ZPMC QC 接受。

Work By: Li Liming Prepared by: Wang Hu Reviewed by QCE: Zhao Shuangbin
 施工方: Li Liming 准备: 07.2.1 质量工程师批准: Zhao Shuangbin
 Drawing Error Material Defect Fabrication Error Other 09.7.1
 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: MT 确认, 打磨去除. Conform by use of MT and removed by grinding.

Prepared by: Li Liming Approved by QCA: Lu Tankun
 准备: 2009.08.01 质量经理批准: 8/1/09

Reason for Nonconformance:

不符合原因: 线性缺陷漏检. Discovered linear indication.

预防措施: 加强检验, 仔细操作. Enhance inspection and operation carefully.
 Approved by/批准: Li Liming 2009.08.01

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 Bln 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 Date: 22-Jun-2009
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: 05.03.06-000291
Subject: NCR No. ZPMC-0301

Reference Description: Missed MT Indication by QC, Weld #SEG-014D-007, Segment 3AE

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- 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: 03

Remarks:

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See attached NCR No. ZPMC-301 for details.

Action Required and/or Action Taken:

Propose a resolution for the identified recurring non-conformance which constitutes a systematic problem on both materials/workmanship and quality control issues to remedy the defected work and 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-0301

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

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, P.R. China

Report No: NCR-000327

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 15-Jun-2009

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

NCR #: ZPMC-0301

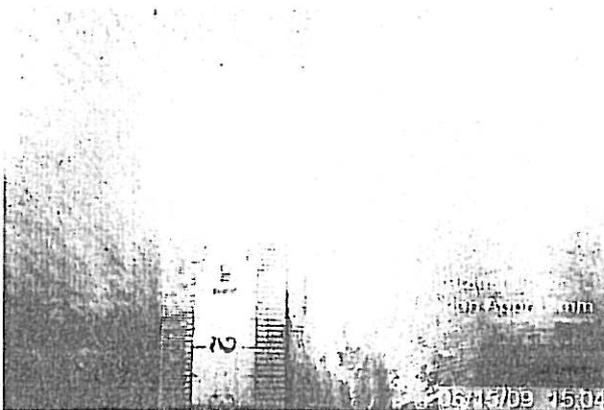
Type of problem:

Welding Concrete Other
 Welding Curing Procedural **Bridge No:** 34-0006
 Joint fit-up Coating Other **Component:** OBG Segment 3AE
 Procedural Procedural Description:

Reference Description: Missed MT Indication by QC, Weld #SEG-014D-007, Segment 3AE

Description of Non-Conformance:

Caltrans Quality Assurance (QA) Inspector performed 15% verification magnetic particle testing (MT) on weld joint SEG-014D-007 for segment 3AE. QA Inspector discovered one rejectable longitudinal linear indication measuring approximately 12 mm in length. This weld was previously tested and accepted by ZPMC Quality Control (QC) 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: Subhasis Bera
Name of individual from Contractor notified: Kevin Chen
Time and method of notification: 06.15.2009, 15:00, Verbal
Name of Caltrans Engineer notified: Stanley Ku
Time and method of notification: 06.16.2009, 8:00, 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-11814

DATE日期 2009.06.21

PAGE OF页码 1/1

Revision No: 0

PROJECT NO.

ZP06-787

CONTRACTOR:

CALTRANS

工程编号:

用户:

DRAWING NO.

SEG014

CALTRANS CONTRACT NO.:

04-0120F4

图号:

OBG 3A CORNER ASSEMBLY

加州工程编号

REFERENCING CODE

ACCEPTANCE STANDARD

PROCEDURE NO.

CALIBRATION DUE DATE

参考规范编码

接受标准

程序编号

仪器校正有效期

AWS D1.5-2002

AWS D1.5-2002

ZPQC-MT-01

Dec. 28ST, 2009

EQUIPMENT 设备

MANUFACTURER 制造商

MODEL NO. 样式编号

SERIAL NO. 连续编号

MT YOKE

PARKER

B310S

5395 5617 5620

MAGNETIZING METHOD

Continuous magnetic yoke

CURRENT

AC

磁化方法

磁轭式连续法

电流

PARTICLE TYPE

Dry magnet powder

YOKE SPACING

70~150mm

磁粉类型

干磁粉

磁轭间距

MATERIAL TO BE

 WELDING 焊接件

Material & thickness

A709M-345T2-X

EXAMINED

 CASTING 铸件

母材, 厚度

A709M-HPS-485WT2

检测材料

 FORGING 锻造

25/30 mm

WELDING PROCESS

SMAW

TYPE OF JOINT

T-JOINT

焊接方法

焊缝类型

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			
SEG014D-007				ACC.		100%MT
SEG014D-008				ACC.		100%MT
SEG014E-007				ACC.		100%MT
SEG014E-008				ACC.		100%MT
SEG014E-030				ACC.		100%MT
SEG014E-031				ACC.		100%MT
SEG014E-053				ACC.		100%MT
SEG014E-054				ACC.		100%MT

BLANK

EXAMINED BY主操

Li Zhenhua

Li Zhenhua

2009.06.21

REVIEWED BY审核

LEVEL-II SIGN

SIGN

/ DATE日期

Li Zhenhua

2009.06.21

质量经理 / QCM

签字 SIGN / 日期 DATE

Li Zhenhua

6/21/09

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



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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-000350**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 30-Nov-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0301**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: 15-Jun-2009**Description of Non-Conformance:**

Caltrans Quality Assurance (QA) Inspector performed 15% verification magnetic particle testing (MT) on weld joint SEG-014D-007 for segment 3AE. QA Inspector discovered one rejectable longitudinal linear indication measuring approximately 12 mm in length. This weld was previously tested and accepted by ZPMC Quality Control (QC) MT technicians.

Contractor's proposal to correct the problem:

Provide NDT documentation verifying the weld has been repaired and is in conformance with the Contract requirements.

Corrective action taken:

ZPMC has submitted the required documentation verifying that the repairs are in conformance. ABF has issued a mandate for calibration of magnetic particle testing yokes to be witnessed by ABF.

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**