

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-000589

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 03-Jan-2010

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

NCR #: ZPMC-0562

Type of problem:

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Segment 8BE Side Panel
Procedural	Procedural	Description: Missed MT indication by QC	

Reference Description: Base Metal linear indication discovered with MT after ZPMC had tested and accepted this Temporary Attachment removal area in Segment 8BE Side Panel

Description of Non-Conformance:

During the Quality Assurance Magnetic Particle Testing (MT) review of welds located on OBG Corner Assembly 8BE, this Quality Assurance Inspector (QA) discovered the following issue:

- One (1) linear indication that measured approximately 10mm in length.
- The linear indication was discovered in the base metal at SP579A (PL1043A Exterior).
- The adjacent weld is identified as: SEG046A-002
- This weld joins SP579A (PL1043A) to SP539A (PL1042A).
- This base metal linear indication was located in a temporary attachment removal area.
- The OBG Segment 8BE is located in the outside yard, south side of the Bay14.

The Notice of Witness Inspection Number (NWIT) is 004978. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMCs QC personnel are required to perform 100% Magnetic particle inspection of this weld.



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Applicable reference:

AWS D1.5 2002 Section 3.3.8: "Temporary Welds, removal of temporary welds shall conform to section 3.3.7.4."

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."

Who discovered the problem: Chandra Sudalaimuthu

Name of individual from Contractor notified: Man Kit Lee

Time and method of notification: 1530 hours, 01-03-10, Verbal

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 2230 hours, 01-03-10, Email

QC Inspector's Name: Wang Xian Ping

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By: Carreon, Albert

Lead Reviewer/Task Leader

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: 05-Jan-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: 05.03.06-000552

Subject: NCR No. ZPMC-0562

Reference Description: Base Metal linear indication discovered with MT after ZPMC had tested and accepted this Temporary Attachment removal area in S

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:** 08

Remarks:

During the Quality Assurance Magnetic Particle Testing (MT) review of welds located on OBG Corner Assembly 8BE, this Quality Assurance Inspector (QA) discovered the following issue:

- One (1) linear indication that measured approximately 10mm in length.
- The linear indication was discovered in the base metal at SP579A (PL1043A Exterior).
- The adjacent weld is identified as: SEG046A-002
- This weld joins SP579A (PL1043A) to SP539A (PL1042A).
- This base metal linear indication was located in a temporary attachment removal area.
- The OBG Segment 8BE is located in the outside yard, south side of the Bay14.

The Notice of Witness Inspection Number (NWIT) is 004978. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMCs QC personnel are required to perform 100% Magnetic particle inspection of this weld.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. Missed MT indications are a chronic issue. Provide the required training and equipment necessary so the ZPMC MT technician does not miss this type of indication in the future. A response for the resolution of this issue is expected within 7 days.

Transmitted by: Bill Howe Sr. Transportation Engineer

Attachments: ZPMC-0562

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, 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: 05.03.06-000552

Subject: NCR No. ZPMC-0562

Dated: 18-Jan-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000511 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: As a means of preventing future occurrences, the ABF QCM has performed refresher MT training. See attached MT training agenda and attendance roster.

As it is necessary to respond to the NCR with a proposed plan of action, ABF is doing so without all of the repair documentation at this time. As a means of preventing future occurrences, the ABF QCM has performed refresher MT training. See attached MT training agenda and attendance roster. The ABF QCM has been discussing missed MT indications with the ZPMC QCM and related NDT supervisory personnel. The ZPMC level III is in the process of assessing personnel, techniques and equipment. Preliminary findings have resulted in ZPMC taking immediate action by performing 100% overchecks of the previously tested areas beginning the week of 18 January 09 as a means of preventing future NCR's for missed indications. ABF has purchased powder dispensers for all the ZPMC MT technicians as a means to help control the amount of powder applied during MT testing. ZPMC requests this NCR be placed in the Approved Action Pending status category until such time that all the repair documents have been assembled and submitted.

Submitted by: Lawton, Steve

Attachment(s): ABF-NPR-000511R00;

Caltrans' comments:

Status: AAP

Date: 25-Jan-2010

The preventative measures taken by the QCM and the proposed resolution for closing NCR submitted by the contractor are acceptable. The NCR will be closed upon completion of the repair and review of the repair documents by the Engineer when submitted by the contractor.

Submitted by: Chao, Ching

Date: 25-Jan-2010

Attachment(s):

Tool Box Training Agenda

Subject: MT Techniques

Reason for Training: Several CT NCR's of indications missed during ZPMC NDT inspection.

1. Safety

- a. Safety Glasses
- b. Gloves (if required)
- c. Knee Pads
- d. Electrical shock

2. Tools

- a. Lighting
- b. MT Powder. Red for ambient, Yellow for High Temperature.
- c. Powder Bulb
- d. Powder Blower
- e. MT Yoke Adequate working condition
- f. Pie Gage

3. Inspection Techniques

- a. Lighting
- b. Position of body (distance of eyes to the weld surface)
- c. Application of Powder removal of Powder
- d. Continuous method
- e. Two directions
- f. Both sides of weld
- g. Clean and dry surface



教育培训纪录

培训编号: MT-22-Dec-09

培训内容:	MT Techniques
培训对象:	项目质检
授课人员:	Steve Lawton
培训类型:	内部培训
培训时间:	22-Dec-09 5:00 PM
计划培训地点:	ZPMC QC office

人员签到:

姓名	部门	姓名	部门
孙力杰 Sunlei	钢桥	狄坤伦 Di Kunlun	钢桥
孙功强 Sun Gongqiang	钢桥	蔡新鑫 Cai Xinxin	钢桥
徐海 Xu Hai	钢桥	傅春强 Fu Zhongqiang	钢桥
卞源源 Bian Yuanyuan	钢桥	顾云武 Gu Yunwu	钢桥
许兵 Xu Bing	钢桥	金建廷 Jin Jianting	钢桥 MT
李振华 Li Zhenhua	钢桥	常方杰 Chang Fangjie	钢桥
李坤阳 Li Xunyang	QA	袁俊 Yuan Jun	钢桥
王威 Wang Wei	钢桥	刘章敏 Liu Zhangmin	
孙林 Sun Lin	钢桥 MT	徐华祥 Xu Huaxiang	钢桥
丁阿成 Ding A Cheng	钢桥 MT	周东超 Zhou Dongchao	钢桥
贺佳佳 He Jiajia	钢桥	赵成功 Zhao Chenggong	钢桥
黄瑞 Huang Rui	钢桥	孙工 Sun Gong	钢桥
李黎明 Li Liming	钢桥	徐辉 Xu Hui	钢桥
李昌涛 Li Changtao		刘宏斌 Liu Hongbin	

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000552

Subject: NCR No. ZPMC-0562

Dated: 17-May-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000511 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has repaired the indications referenced in the NCR and is providing the NDT report to show that the weld is now acceptable. Based on this ZPMC requests closure of this NCR.

ZPMC has repaired the indications referenced in the NCR and is providing the NDT report to show that the weld is now acceptable. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000511R01;

Caltrans' comments:

Status: CLO

Date: 23-May-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0562 is closed.

Submitted by: Eagen, Sean

Attachment(s):

Date: 23-May-2010



No. B-756

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-5-13

**REGARDING: NCR-000577(ZPMC-0550) NCR-000589(ZPMC-0562)
NCR-000708(ZPMC-0675) NCR-000729(ZPMC-0692)**

ZPMC is providing the NDT records show these indications have been removed and repaired and are acceptable now. Based on this, ZPMC is requesting closure of these NCRs.

ATTACHMENT:

NCR-000577(ZPMC-0550)

B787-MT-17495 R1

B787-MT-22807 R1

NCR-000589(ZPMC-0562)

B787-MT-22772 R1

NCR-000708(ZPMC-0675)

B787-MT-21930 R1

NCR-000729(ZPMC-0692)

B787-MT-22769 R1

A handwritten signature in black ink, appearing to be "J. Wang" or similar, is written over the attachment list.

5/17/10



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: 02-Jan-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: 05.03.06-000540

Subject: NCR No. ZPMC-0550

Reference Description: Missed MT Indications by QC, Crossbeam CB11, welds CB202G-029-087 and CB202G-031-180

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: Xbeam

Lift: 09

Remarks:

During the Quality Assurance Magnetic Particle Testing (MT) review of welds located on Orthotropic Box Girder (OBG) Crossbeam CB11, the Quality Assurance Inspector (QA) discovered the following issue:

-Two (2) longitudinal linear indications measuring approximately 10mm and 8mm in length.

-The welds are identified as: CB202G-029-087 (8 mm) and CB202G-031-180 (10 mm).

-Weld CB202G-029-087 is a horizontal Fillet Weld joining the Side Panel (SP205A) Seismic Performance Critical Member (SPCM) stiffener connecting to the Floor Beam Intermediate Diaphragm (FB205-029).

-Weld CB202G-031-180 is a vertical Fillet Weld joining the Side Panel (SP205A) SPCM stiffener connecting to the Floor Beam Intermediate Diaphragm (FB205-031).

-The OBG Crossbeam CB11 is located at west side of bay 14.

-The Notice of Witness Inspection Number (NWIT) is 004973. The indications are located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. ZPMC's QC personnel are required to perform hundred (100%) percent MT inspection of these welds.

Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval. Ensure the MT technician that missed these indications is trained and equipped in a manner so these indications are not missed in the future. A response for the resolution of this issue is expected within 7 days.

Transmitted by: Bill Howe Sr. Transportation Engineer

Attachments: ZPMC-0550

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

NCT :

(Continued Page 2 of 2)

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-000577**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 01-Jan-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0550**Type of problem:**Welding Concrete Other Welding Curing Procedural Bridge No: 34-0006Joint fit-up Coating Other Component: Crossbeam CB11Procedural Procedural Description:**Reference Description:** Missed MT Indications by QC, Crossbeam CB11, welds CB202G-029-087 and CB202G-031-180**Description of Non-Conformance:**

During the Quality Assurance Magnetic Particle Testing (MT) review of welds located on Orthotropic Box Girder (OBG) Crossbeam CB11, the Quality Assurance Inspector (QA) discovered the following issue:

-Two (2) longitudinal linear indications measuring approximately 10mm and 8mm in length.

-The welds are identified as: CB202G-029-087 (8 mm) and CB202G-031-180 (10 mm).

-Weld CB202G-029-087 is a horizontal Fillet Weld joining the Side Panel (SP205A) Seismic Performance Critical Member (SPCM) stiffener connecting to the Floor Beam Intermediate Diaphragm (FB205-029).

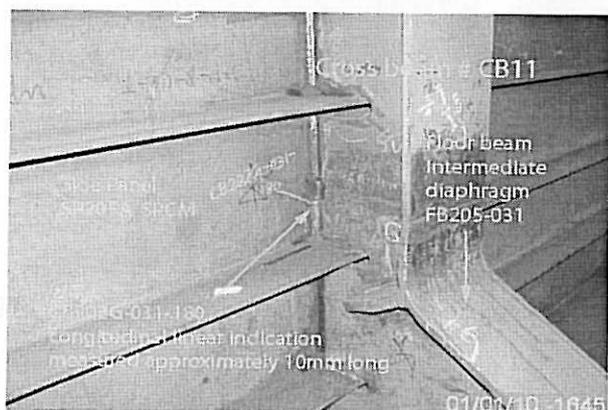
-Weld CB202G-031-180 is a vertical Fillet Weld joining the Side Panel (SP205A) SPCM stiffener connecting to the Floor Beam Intermediate Diaphragm (FB205-031).

-The OBG Crossbeam CB11 is located at west side of bay 14.

-The Notice of Witness Inspection Number (NWIT) is 004973. The indications are located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. ZPMC's QC personnel are required to perform hundred (100%) percent MT inspection of these welds.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



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.”

Who discovered the problem: Dhanasingh Sukanthan
Name of individual from Contractor notified: Cao Haizhou
Time and method of notification: 1645 hours, 01/01/10, Verbal
Name of Caltrans Engineer notified: Bill Howe
Time and method of notification: 1830 hours, 01-01-10, Verbal
QC Inspector's Name: Lay Tao
Was QC Inspector aware of the problem: Yes No
Contractor's proposal to correct the problem:

Comments:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

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 Eric Tsang, 15000422372, 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-17495R1 : DATE日期 2010.01.08 PAGE OF页码 1/1 Revision No: 0

PROJECT NO. ZP06-787 CONTRACTOR: CALTRANS
 工程编号: 用户:

DRAWING NO. CB202G CALTRANS CONTRACT NO.: 04-0120F4
 图号: CB11 CROSS BEAM 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, 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 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 EXAMINED WELDING 焊接件 Material & thickness A709M-345T2/F2-X
 检测材料 CASTING 铸件 母材,厚度 14mm
 FORGING 锻造

WELDING PROCESS SMAW TYPE OF JOINT CORNER 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			
CB202G-029-087	1R1			ACC.		100%MT

AFTER B-CWR1030

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EXAMINED BY主探 Chang Fangjie	REVIEWED BY 审核
LEVEL - II SIGN 签名 / DATE日期 质量经理 / QCM	LEVEL-II SIGN / DATE日期 用户CUSTOMER
签字 SIGN / 日期 DATE	签字 SIGN / 日期 DATE



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: 05-Jan-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: 05.03.06-000552

Subject: NCR No. ZPMC-0562

Reference Description: Base Metal linear indication discovered with MT after ZPMC had tested and accepted this Temporary Attachment removal area

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: 08

Remarks:

During the Quality Assurance Magnetic Particle Testing (MT) review of welds located on OBG Corner Assembly 8BE, this Quality Assurance Inspector (QA) discovered the following issue:

- One (1) linear indication that measured approximately 10mm in length.
- The linear indication was discovered in the base metal at SP579A (PL1043A Exterior).
- The adjacent weld is identified as: SEG046A-002
- This weld joins SP579A (PL1043A) to SP539A (PL1042A).
- This base metal linear indication was located in a temporary attachment removal area.
- The OBG Segment 8BE is located in the outside yard, south side of the Bay14.

The Notice of Witness Inspection Number (NWIT) is 004978. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMCs QC personnel are required to perform 100% Magnetic particle inspection of this weld.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. Missed MT indications are a chronic issue. Provide the required training and equipment necessary so the ZPMC MT technician does not miss this type of indication in the future. A response for the resolution of this issue is expected within 7 days.

Transmitted by: Bill Howe Sr. Transportation Engineer

Attachments: ZPMC-0562

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

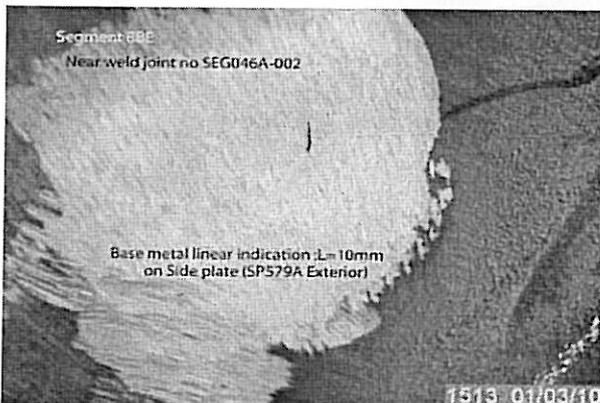
File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT**Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCR-000589**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 03-Jan-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0562**Type of problem:**Welding Concrete Other Welding Curing Procedural **Bridge No:** 34-0006Joint fit-up Coating Other **Component:** Segment 8BE Side PanelProcedural Procedural **Description:** Missed MT indication by QC**Reference Description:** Base Metal linear indication discovered with MT after ZPMC had tested and accepted this Temporary Attachment removal area in Segment 8BE Side Panel**Description of Non-Conformance:**

During the Quality Assurance Magnetic Particle Testing (MT) review of welds located on OBG Corner Assembly 8BE, this Quality Assurance Inspector (QA) discovered the following issue:

- One (1) linear indication that measured approximately 10mm in length.
- The linear indication was discovered in the base metal at SP579A (PL1043A Exterior).
- The adjacent weld is identified as: SEG046A-002
- This weld joins SP579A (PL1043A) to SP539A (PL1042A).
- This base metal linear indication was located in a temporary attachment removal area.
- The OBG Segment 8BE is located in the outside yard, south side of the Bay14.

The Notice of Witness Inspection Number (NWIT) is 004978. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMCs QC personnel are required to perform 100% Magnetic particle inspection of this weld.



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Applicable reference:

AWS D1.5 2002 Section 3.3.8: "Temporary Welds, removal of temporary welds shall conform to section 3.3.7.4."

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."

Who discovered the problem: Chandra Sudalaimuthu

Name of individual from Contractor notified: Man Kit Lee

Time and method of notification: 1530 hours, 01-03-10, Verbal

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 2230 hours, 01-03-10, Email

QC Inspector's Name: Wang Xian Ping

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By: Carreon, Albert

Lead Reviewer/Task Leader

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: 09-Apr-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: 05.03.06-000665

Subject: NCR No. ZPMC-0675

Reference Description: Missed MT Indications by QC on OBG Segment 9CE Deck Panel to Diaphragm Weld

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: 09

Remarks:

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on Segment 9CE, this QA Inspector discovered the following issues:

- One (1) Transverse linear indication (crack) measuring approximately 12 mm in length.
- One (1) Longitudinal linear indication (crack) measuring approximately 20 mm in length.
- The weld is identified as: DP448-001-030 @ Panel Point-079.
- The weld is a Fillet Weld type joining DP448 to Deck Panel Diaphragm plate X1C.
- The OBG 9CE segment is located at the back side of Bay # 13.

The Notice of Witness Inspection Number (NWIT) is 005476. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. ZPMC's QC personnel are required to perform twenty five (25%) percent MT inspection of this weld.

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: Sean Eagen Transportation Engineer

Attachments: ZPMC-0675

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

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 #: 04-0120F4Cty: 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-000708

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 08-Apr-2010

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

NCR #: ZPMC-0675

Type of problem:

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Segment 9CE Deck Panel to Diaphragm
Procedural	Procedural	Description: Missed MT indication by QC	

Reference Description: Missed MT Indications by QC on OBG Segment 9CE Deck Panel to Diaphragm Weld

Description of Non-Conformance:

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on Segment 9CE, this QA Inspector discovered the following issues:

- One (1) Transverse linear indication (crack) measuring approximately 12 mm in length.
- One (1) Longitudinal linear indication (crack) measuring approximately 20 mm in length.
- The weld is identified as: DP448-001-030 @ Panel Point-079.
- The weld is a Fillet Weld type joining DP448 to Deck Panel Diaphragm plate X1C.
- The OBG 9CE segment is located at the back side of Bay # 13.

The Notice of Witness Inspection Number (NWIT) is 005476. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. ZPMC's QC personnel are required to perform twenty five (25%) percent MT inspection of this weld.



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

-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.

Who discovered the problem: Vikram Singh

Name of individual from Contractor notified: Peter Shaw

Time and method of notification: 1700 hours, 04/08/10, Verbal

Name of Caltrans Engineer notified: Sean Eagen

Time and method of notification: 0830 hours, 04/09/10, Verbal

QC Inspector's Name: Zhong Wei

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By:	Tsang, Eric	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 B787-MT-21930R1		DATE日期 2010.05.16		PAGE OF页码 1/1	Revision No: 0	
PROJECT NO. 项目编号: ZP06-787			CONTRACTOR: 用户: CALTRANS			
DRAWING NO. 号: DP448 9CE DECK PLATE U-RIB			CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4			
REFERENCING CODE 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 , 2010			
EQUIPMENT 设备 Yoke	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5395 5617 5620			
MAGNETIZING METHOD 化方法	Continuous magnetic yoke 磁轭式连续法	CURRENT 电流	AC			
PARTICLE TYPE 粉类型	Dry magnet powder 干磁粉	YOKE SPACING 磁轭间距	70~150mm			
MATERIAL TO BE EXAMINED 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 14mm			
WELDING PROCESS 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			
DP448-001-030	1R1			ACC.		100%MT
	2R1			ACC.		100%MT
AFTER B-CWR1395 REV0						
BLANK						
EXAMINED BY主探 Ding Acheng 2010.05.16			REVIEWED BY 审核 SU Wei 2010.05.16			
LEVEL-II SIGN 签名 / DATE日期 项目经理 / QCM			LEVEL-II SIGN / DATE日期 用户CUSTOMER			
SIGN / 日期 DATE			签字 SIGN / 日期 DATE			



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: 06-May-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: 05.03.06-000687

Subject: NCR No. ZPMC-0692

Reference Description: Missed MT Indication by QC in OBG Segment 7BW at Longitudinal Diaphragm to FB Weld

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: 07

Remarks:

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of base metal and welds located on Segment 7BW, this QA Inspector discovered the following issues:

- One (1) longitudinal linear crack measuring approximately 30 to 35mm in length.
- The weld is identified as SEG035C-006.
- The weld is a CJP T-joint joining the longitudinal diaphragm (Piece mark LD018-012) to floor beam web (Piece mark FB027-006).
- Location of this weld joint is at panel point PP52 Cross Beam side of the segment.
- The indication is clearly marked on the material.
- Lift 7 West is located in the OGB Trial Assembly Area.

The Notice of Witness Inspection Number (NWIT) is 005670. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel and ABF QC personnel. According to the contract documents ZPMC Quality Control (QC) is required to perform 100% MT of this weld.

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: Sean Eagen Transportation Engineer

Attachments: ZPMC-0692

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, P.R. China

Report No: NCR-000729

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 05-May-2010

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

NCR #: ZPMC-0692

Type of problem:

Welding **Concrete** **Other**

Welding **Curing** **Procedural** **Bridge No:** 34-0006

Joint fit-up **Coating** **Other** **Component:** Segment 7BW Longitudinal Diaphragm

Procedural **Procedural** **Description:** Missed MT indication by QC

Reference Description: Missed MT Indication by QC in OBG Segment 7BW at Longitudinal Diaphragm to
 FB Weld

Description of Non-Conformance:

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of base metal and welds located on Segment 7BW, this QA Inspector discovered the following issues:

- One (1) longitudinal linear crack measuring approximately 30 to 35mm in length.
- The weld is identified as SEG035C-006.
- The weld is a CJP T-joint joining the longitudinal diaphragm (Piece mark LD018-012) to floor beam web (Piece mark FB027-006).
- Location of this weld joint is at panel point PP52 Cross Beam side of the segment.
- The indication is clearly marked on the material.
- Lift 7 West is located in the OGB Trial Assembly Area.

The Notice of Witness Inspection Number (NWIT) is 005670. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel and ABF QC personnel.

According to the contract documents ZPMC Quality Control (QC) is required to perform 100% MT of this weld.



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

Who discovered the problem: Joe Alaniz

Name of individual from Contractor notified: CK Chan

Time and method of notification: 1630 hours, 05/05/10, Verbal

Name of Caltrans Engineer notified: Sean Eagen

Time and method of notification: 1300 hours, 05/06/10, Verbal

QC Inspector's Name: Wang Lu

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

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 Office of Structural Materials for your project.

Inspected By:	Tsang, Eric	SMR
Reviewed By:	Wahbeh, Mazen	SMR

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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, P.R. China**Report No:** NCS-000633**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 23-May-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0562**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: 03-Jan-2010**Description of Non-Conformance:**

During the Quality Assurance Magnetic Particle Testing (MT) review of welds located on OBG Corner Assembly 8BE, this Quality Assurance Inspector (QA) discovered the following issue:

- One (1) linear indication that measured approximately 10mm in length.
- The linear indication was discovered in the base metal at SP579A (PL1043A Exterior).
- The adjacent weld is identified as: SEG046A-002
- This weld joins SP579A (PL1043A) to SP539A (PL1042A).
- This base metal linear indication was located in a temporary attachment removal area.
- The OBG Segment 8BE is located in the outside yard, south side of the Bay 14.

The Notice of Witness Inspection Number (NWIT) is 004978. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMCs QC personnel are required to perform 100% Magnetic particle inspection of this weld.

Contractor's proposal to correct the problem:

Repair said indication and perform NDT required to verify weld quality.

Corrective action taken:

Contractor submitted post repair NDT documentation verifying weld has been repaired and is in conformance with Contract weld quality requirements. Supplemental training was provided to NDT technicians as well.

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.

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Inspected By: Simonis,Jim

Quality Assurance Inspector

Reviewed By: Wahbeh,Mazen

QA Reviewer