

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-000730**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 05-May-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0693**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Lift 13W Floorbeam
Procedural	Procedural	Description: Missed UT indication by QC	

Reference Description: Missed UT indication by QC on Lift 13W Floorbeam Weld**Description of Non-Conformance:**

During the Quality Assurance (QA) Ultrasonic Testing (UT) verification of welds located on OBG Floor Beam (FB), this QA Inspector discovered the following issue:

- One (1) longitudinal "Class A" indication measuring approximately 25mm in length.
- The D rating was +6dB at a depth of 26.15mm and the thickness of the steel material is 35mm.
- The weld is identified as: FB3184-001-004, located at Panel Point 119-1500 (Lift 13W)
- The weld is a Complete Joint Penetration (CJP) butt weld joining FB plate X4397A to FB plate X7501A.
- The "Y" location of the indication is approximately 180mm from nearest end of the weld and is clearly marked on or near the weld.
- This material is designated as Seismic Critical Performance Members (SPCM).
- This FB member is located in Bay 02.

The Notice of Witness Inspection Number (NWIT) is 005665. 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, ZPMC's QC personnel are required to perform one hundred (100%) percent UT inspection 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; AWS D1.5-02 Section 6; Table 6.3 specifies a class “A” indication as having a rating of 8dbs and under for material thicknesses 20mm through 38mm.

Who discovered the problem: Amit K. Juvekar

Name of individual from Contractor notified: Chen Ji Wei

Time and method of notification: 1537 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: Zhu Lin

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
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Reviewed By:	Wahbeh, Mazen	SMR
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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: 05.03.06-000688

Subject: NCR No. ZPMC-0693

Reference Description: Missed UT indication by QC on Lift 13W Floorbeam 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:** 13

Remarks:

- During the Quality Assurance (QA) Ultrasonic Testing (UT) verification of welds located on OBG Floor Beam (FB), this QA Inspector discovered the following issue:
- One (1) longitudinal "Class A" indication measuring approximately 25mm in length.
 - The D rating was +6dB at a depth of 26.15mm and the thickness of the steel material is 35mm.
 - The weld is identified as: FB3184-001-004, located at Panel Point 119-1500 (Lift 13W)
 - The weld is a Complete Joint Penetration (CJP) butt weld joining FB plate X4397A to FB plate X7501A.
 - The "Y" location of the indication is approximately 180mm from nearest end of the weld and is clearly marked on or near the weld.
 - This material is designated as Seismic Critical Performance Members (SPCM).
 - This FB member is located in Bay 02.

The Notice of Witness Inspection Number (NWIT) is 005665. 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, ZPMC's QC personnel are required to perform one hundred (100%) percent UT 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-0693

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

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000688

Subject: NCR No. ZPMC-0693

Dated: 20-May-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000665 Rev: 00

Contractor's Proposed Resolution:

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

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

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000665R00;

Caltrans' comments:

Status: CLO

Date: 25-May-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0693 is closed.

Submitted by: Eagen, Sean

Attachment(s):

Date: 25-May-2010



No. B-762

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-5-~~13~~27

REGARDING: NCR-000730(ZPMC-0693)

ZPMC is providing the NDT records show the indication have been removed and repaired and the weld is now acceptable. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000730(ZPMC-0693)

B787-UT-12729 R1

A handwritten signature in black ink, appearing to be 'J. M. ...' with a stylized flourish at the end.

5/20/10



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
666 Feng Bin Road Room 708, Changxing Island
Shanghai 201913 PR China
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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: 05.03.06-000688

Subject: NCR No. ZPMC-0693

Reference Description: Missed UT indication by QC on Lift 13W Floorbeam 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: 13

Remarks:

During the Quality Assurance (QA) Ultrasonic Testing (UT) verification of welds located on OBG Floor Beam (FB), this QA Inspector discovered the following issue:

- One (1) longitudinal "Class A" indication measuring approximately 25mm in length.
- The D rating was +6dB at a depth of 26.15mm and the thickness of the steel material is 35mm.
- The weld is identified as: FB3184-001-004, located at Panel Point 119-1500 (Lift 13W)
- The weld is a Complete Joint Penetration (CJP) butt weld joining FB plate X4397A to FB plate X7501A.
- The "Y" location of the indication is approximately 180mm from nearest end of the weld and is clearly marked on or near the weld.
- This material is designated as Seismic Critical Performance Members (SPCM).
- This FB member is located in Bay 02.

The Notice of Witness Inspection Number (NWIT) is 005665. 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, ZPMC's QC personnel are required to perform one hundred (100%) percent UT 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-0693

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-000730

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 05-May-2010

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

NCR #: ZPMC-0693

Type of problem:

Welding Concrete Other
 Welding Curing Procedural Bridge No: 34-0006
 Joint fit-up Coating Other Component: Lift 13W Floorbeam
 Procedural Procedural Description: Missed UT indication by QC

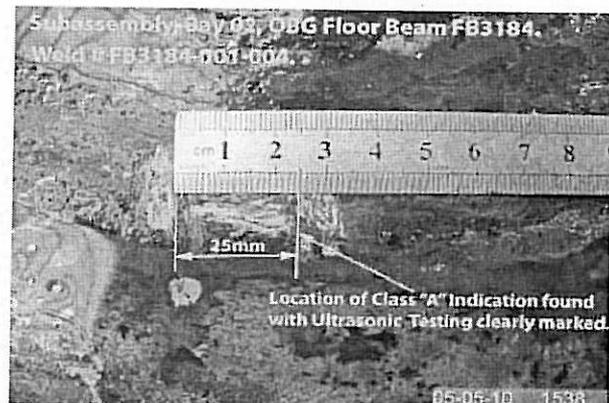
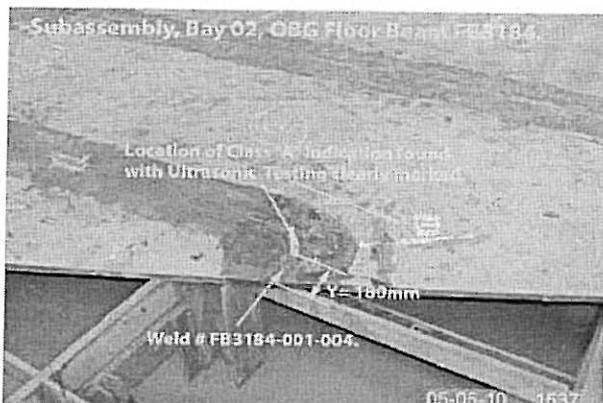
Reference Description: Missed UT indication by QC on Lift 13W Floorbeam Weld

Description of Non-Conformance:

During the Quality Assurance (QA) Ultrasonic Testing (UT) verification of welds located on OBG Floor Beam (FB), this QA Inspector discovered the following issue:

- One (1) longitudinal "Class A" indication measuring approximately 25mm in length.
- The D rating was +6dB at a depth of 26.15mm and the thickness of the steel material is 35mm.
- The weld is identified as: FB3184-001-004, located at Panel Point 119-1500 (Lift 13W)
- The weld is a Complete Joint Penetration (CJP) butt weld joining FB plate X4397A to FB plate X7501A.
- The "Y" location of the indication is approximately 180mm from nearest end of the weld and is clearly marked on or near the weld.
- This material is designated as Seismic Critical Performance Members (SPCM).
- This FB member is located in Bay 02.

The Notice of Witness Inspection Number (NWIT) is 005665. 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, ZPMC's QC personnel are required to perform one hundred (100%) percent UT inspection 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; AWS D1.5-02 Section 6; Table 6.3 specifies a class “A” indication as having a rating of 8dbs and under for material thicknesses 20mm through 38mm.

Who discovered the problem: Amit K. Juvekar

Name of individual from Contractor notified: Chen Ji Wei

Time and method of notification: 1537 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: Zhu Lin

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



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 B787-UT-12729R1 DATE 2010.05.18 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: FLOOR BEAM 13 LIFTING DRAWING NO.: FB3184 CALTRANS CONTRACT NO.: 04-0120F4
 部件名称 图号 加州工程编号

REFERENCING CODE 参考规范 ACCEPTANCE STANDARD 接受标准 PROCEDURE NO. 程序编号
 AWS D1.5-2002 AWS D1.5-2002(Table 6.3) ZPQC-UT-01

WELDING PROCESS 焊接方法 JOINT TYPE 焊缝类型 CALIBRATION DUE DATE 仪器校正有效期
 FCAW BUTT Dec. 28ST, 2010

EQUIPMENT 设备 MANUFACTURER 制造商 MODEL NO. 样式编号 SERIAL NO. 序列编号
 UT SCOPE PANAMETRICS EPOCH-4B 071565311, 061488510, 061495811, 070152011,

CALIBRATION BLOCK 试块 COUPLANT 耦合剂 MATERIAL/THICKNESS 材料厚度
 AWS IIW BLOCK TYPE II C.M.C A709M-345F2-X 35mm

TRANSDUCER 探头

MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸	MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸
Changchao	70°	2.5MHz	18×18mm				
Changchao	0°	2.5MHz	20mm	Reference Level 参考灵敏度			20dB

Base metal inspected per AWS D1.5-2002 Section 6.19.5 0° UT OK.

WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS 分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	Remark 备注	
					Indication Level	Reference Level	Attenuation Factor	Indication Rating	LOCATION OF DISCONTINUITY 不连续位置(mm)							
					a	b	c	d	Length 长度	Sound Path 声程	Depth from Surface 距表面深度	From'X 距X	From'Y 距Y			
FB3184-001-004	1R1	70				32									ACC.	100%

AFTER B-WR12682

BLANK

EXAMINED BY 主探 Tang Xinyuan 20/0.25.18 REVIEWED BY 审核 XU Rong gany 20/0.25.18
 LEVEL - I SIGN / DATE LEVEL - II SIGN / DATE

质量经理 / QCM 用户 CUSTOMER
 签字 SIGN / 日期 DATE 签字 SIGN / 日期 DATE

DEPARTMENT OF TRANSPORTATION

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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-000622**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 20-May-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0693**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-May-2010**Description of Non-Conformance:**

During the Quality Assurance (QA) Ultrasonic Testing (UT) verification of welds located on OBG Floor Beam (FB), this QA Inspector discovered the following issue:

- One (1) longitudinal "Class A" indication measuring approximately 25mm in length.
- The D rating was +6dB at a depth of 26.15mm and the thickness of the steel material is 35mm.
- The weld is identified as: FB3184-001-004, located at Panel Point 119-1500 (Lift 13W)
- The weld is a Complete Joint Penetration (CJP) butt weld joining FB plate X4397A to FB plate X7501A.
- The "Y" location of the indication is approximately 180mm from nearest end of the weld and is clearly marked on or near the weld.
- This material is designated as Seismic Critical Performance Members (SPCM).
- This FB member is located in Bay 02.

The Notice of Witness Inspection Number (NWIT) is 005665. 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, ZPMC's QC personnel are required to perform one hundred (100%) percent UT inspection of this weld.

Contractor's proposal to correct the problem:

Repair indication and perform NDT required to verify weld quality.

Corrective action taken:

Contractor has repaired the indication in this NCR and has provided documented NDT results to show that the weld is acceptable.

Did corrective action require Engineer's approval? Yes No**If so, name of Engineer providing approval:****Date:****Is Engineer's approval attached?**

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

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 Devey, 150.0002.6784, who represents the Office of Structural Materials for your project.

Inspected By:	Devey,Jim	Quality Assurance Inspector
Reviewed By:	Wahbeh,Mazen	QA Reviewer
