

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-000848**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 23-Sep-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0810**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: North Tower Lift 5
Procedural	Procedural	Description:	

Reference Description: Missed UT Indication: North Tower Lift 5**Description of Non-Conformance:**

During the Quality Assurance Ultrasonic Testing (UT) review of welds located on North Tower Grillage Lift 5, this Quality Assurance Inspector (QA) discovered the following issues:

- One (1) UT indication measuring approximately 20mm in length, bottom quarter.
- The indication dB rating is a 0 dB.
- The Y distance for this indication is 0 mm from bottom of Transverse grillage plate.
- Material thickness is 65mm.
- The depth of the indication is approximately 54mm.
- The weld is identified as NSD1-TL5-3F-F-28B.
- The weld is a complete joint penetration T-joint weld.
- The indication is clearly marked on or near the weld.
- North Tower Lift 5 is located in Bay 10.

The Notice of Witness Inspection (NWIT) No. is 006751. The indication is located in an area 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.

For further information, please see the attached picture.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



Applicable reference:

AWS D1.5-02 Section 6; Table 6.3 specifies a class "A" indication as having a rating of +1db and lower for material thicknesses >60mm through 100mm. Table 6.2 specifies 70 degree testing angle for bottom quarter of the weld.

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: Mike Hasler

Name of individual from Contractor notified: Steve Lawton

Time and method of notification: 0745/ 09/24/10/ Email

Name of Caltrans Engineer notified: Gina Rizzardo

Time and method of notification: 1330/ 0924/10/ Verbal

QC Inspector's Name: Xu Jie

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: Ng,Michael

QA Inspector

Reviewed By: Wahbeh,Mazen

SMR



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
 333 Burma Road
 Oakland CA 94607
 Tel: 510-286-0539 Fax: 510-286-0550

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
 375 BURMA ROAD
 OAKLAND CA 95607

Date: 24-Sep-2010

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

Dear: Mr. Charles Kanapicki
Attention: Mr. Thomas Nilsson Project/Fabrication Manager
Subject: NCR No. ZPMC-0810

Job Name: SAS Superstructure
Document No: 05.03.06-000804

Reference Description: Missed UT Indication: North Tower Lift 5

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: Tower **Lift:** 05

Remarks:

During the Quality Assurance Ultrasonic Testing (UT) review of welds located on North Tower Grillage Lift 5, the Quality Assurance Inspector (QA) discovered the following issues:

- One (1) UT indication measuring approximately 20mm in length, bottom quarter.
- The indication dB rating is a 0 dB.
- The Y distance for this indication is 0 mm from bottom of Transverse grillage plate.
- Material thickness is 65mm.
- The depth of the indication is approximately 54mm.
- The weld is identified as NSD1-TL5-3F-F-28B.
- The weld is a complete joint penetration T-joint weld.
- The indication is clearly marked on or near the weld.
- North Tower Lift 5 is located in Bay 10.

The Notice of Witness Inspection (NWIT) No. is 006751. The indication is located in an area 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.

References:

AWS D1.5-02 Section 6; Table 6.3 specifies a class “A” indication as having a rating of +1db and lower for material thicknesses >60mm through 100mm. Table 6.2 specifies 70 degree testing angle for bottom quarter of the weld.

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.”

Action Required and/or Action Taken:

Propose a resolution for this non-conformance and provide documentation that the deficiency has been brought into compliance with the contract requirements. Propose a resolution that addresses the apparent failure of Quality Control to identify the indication.

NCT

(Continued Page 2 of 2)

Additionally, provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences.

The response for the resolution of this issue is requested within 7 days.

Transmitted by: Gina Rizzardo Transportation Engineer

Attachments: ZPMC-0810

cc: Rick Morrow, Peter Siegenthaler, Mark Woods

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000804

Subject: NCR No. ZPMC-0810

Dated: 14-Oct-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000807 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has repaired the indication noted in the NCR and is providing NDT documentation after the repair to show the indication has been removed.

ZPMC has repaired the indication noted in the NCR and is providing NDT documentation after the repair to show the indication has been removed. ABFJV has noted which inspector was responsible for this missed indication and is monitoring his performance as well as all inspector performance, if he continues to miss indications disciplinary action will be undertaken. Based on these actions, ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000807R00;

Caltrans' comments:

Status: CLO

Date: 14-Oct-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0810 is closed.

Submitted by: Eagen, Sean

Attachment(s):

Date: 14-Oct-2010



No. T-175

LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2010-10-14

REGARDING: NCR-000848 (ZPMC-810)

ZPMC received NCR-000848 (ZPMC-810), it mentioned that CT inspectors found indication on weld NSD1-TL5-3F/F-28B.

Once CT inspector found indication on this weld, ZPMC took positive action and performed repair work under approval of CT site inspector. Finally this weld was checked by CT and green tagged.

Anyway, as a conscientious attitude and to improve welding quality, we have already inculcated the welder to perform carefully, and welding must be covered by QC.

Here attached related NDT reports show the weld is sound finally.

Basing on above information, ZPMC hope CT could take a review and close the NCR.

ATTACHMENT:

NCR-000848 (ZPMC-810)

T787-UT-3254

Zhang Jiaoli
2010. 10. 14



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
 333 Burma Road
 Oakland CA 94607
 Tel: 510-286-0539 Fax: 510-286-0550

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
 375 BURMA ROAD
 OAKLAND CA 95607

Date: 24-Sep-2010

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

Dear: Mr. Charles Kanapicki
 Attention: Mr. Thomas Nilsson Project/Fabrication Manager

Job Name: SAS Superstructure
 Document No: 05.03.06-000804

Subject: NCR No. ZPMC-0810
 Reference Description: Missed UT Indication: North Tower Lift 5

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: Tower

Lift: 05

Remarks:

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Action Required and/or Action Taken:

Propose a resolution for this non-conformance and provide documentation that the deficiency has been brought into compliance with the contract requirements. Propose a resolution that addresses the apparent failure of Quality Control to identify the indication.

05.03.06-000804.NCT

NCT

(Continued Page 2 of 2)

Additionally, provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences.

The response for the resolution of this issue is requested within 7 days.

Transmitted by: Gina Rizzardo Transportation Engineer

Attachments: ZPMC-0810

cc: Rick Morrow, Peter Siegenthaler, Mark Woods

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

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Report No: NCR-000848

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

Date: 23-Sep-2010

NCR #: ZPMC-0810

Type of problem:

Welding Concrete Other
 Welding Curing Procedural
 Joint fit-up Coating Other
 Procedural Procedural Description:

Bridge No: 34-0006

Component: North Tower Lift 5

Reference Description: Missed UT Indication: North Tower Lift 5

Description of Non-Conformance:

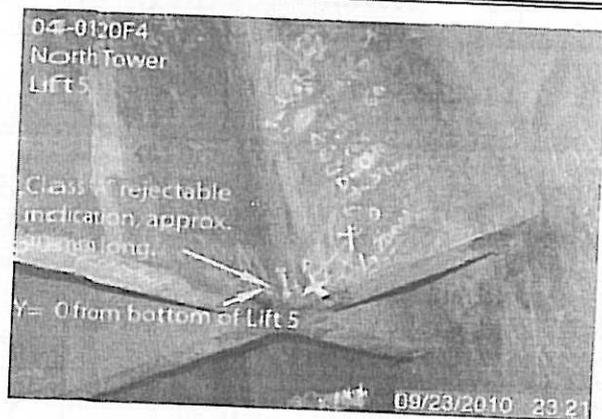
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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



Applicable reference:

AWS D1.5-02 Section 6; Table 6.3 specifies a class "A" indication as having a rating of +1db and lower for material thicknesses >60mm through 100mm. Table 6.2 specifies 70 degree testing angle for bottom quarter of the weld.

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Name of individual from Contractor notified: Steve Lawton

Time and method of notification: 0745/ 09/24/10/ Email

Name of Caltrans Engineer notified: Gina Rizzardo

Time and method of notification: 1330/ 0924/10/ Verbal

QC Inspector's Name: Xu Jie

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: Ng, Michael

Reviewed By: Wahbeh, Mazen

QA Inspector

SMR



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 T787-UT-3254 DATE 2010.09.27 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: FIFTH LIFTING TOWER(N) DRAWING NO.: NSD1-TL5-3F-F 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
 SMAW T-JOINT 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-HPS-485WT2-Z 70/65mm

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
AMERICA	70°	2.25MHz	0.75×0.625 in	AMERICA	45°	2.25MHz	0.75×0.625 in
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		
NSD1-TL5-3F-F-28A/B		70												ACC.	100%
		45												ACC.	100%
		0												ACC.	100%

BLANK

EXAMINED BY 主探 <i>Dan Guang sheng</i>	REVIEWED BY 审核 <i>Xu Honggang</i>
LEVEL - II SIGN / DATE <i>2010.09.27</i>	LEVEL - II SIGN / DATE <i>2010.09.27</i>
质量经理 / QCM <i>Wujianhua</i>	用户 CUSTOMER
签字 SIGN / 日期 DATE <i>2010.09.27</i>	签字 SIGN / 日期 DATE

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 #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCS-000793**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 14-Oct-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0810**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: 23-Sep-2010**Description of Non-Conformance:**

During the Quality Assurance Ultrasonic Testing (UT) review of welds located on North Tower Grillage Lift 5, this Quality Assurance Inspector (QA) discovered the following issues:

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The Notice of Witness Inspection (NWIT) No. is 006751. The indication is located in an area 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:

Contractor proposes to repair the weld indication, and provide NDT report to prove the weld is acceptable. Contractor will monitor the inspector who missed the indication, and take disciplinary action should there be similar future occurrences.

Corrective action taken:

Contractor repaired the missed indication completely with submitted NDT documentation support with acceptable results. Contractor is currently monitoring inspector's performance to determine if disciplinary action is needed.

Did corrective action require Engineer's approval?

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

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

Inspected By: Ng,Michael

Quality Assurance Inspector

Reviewed By: Devey,Jim

QA Reviewer