

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



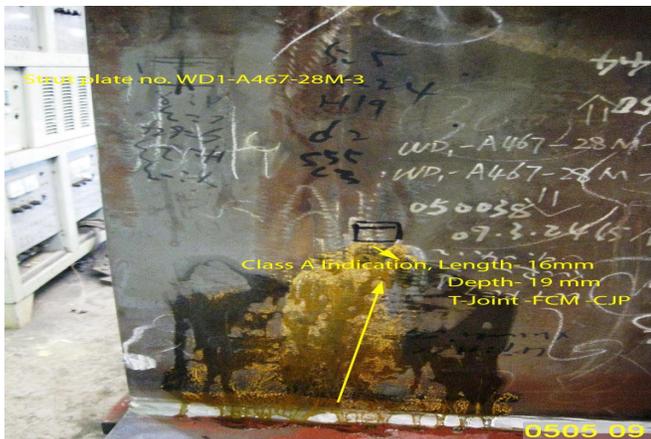
Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, PRC**Report No:** NCR-000262**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 05-May-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0236**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Tower Strut
Procedural	Procedural	Description: Tower Type 3B Strut	

Reference Description: Missed UT Indications on Tower Type 3B Strut**Description of Non-Conformance:**

During random verification Ultrasonic Testing (UT) of Tower Strut Component #WD1-A 467-28M-3, QA discovered a Class A indication approximately 16mm in length and at a depth of 19mm. This weld was previously tested and accepted by ZPMC QC UT Technicians.

**Applicable reference:**

AWS D1.5, Section 6, Table 6.3

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: Baskar Govindarajan**Name of individual from Contractor notified:** Steve Lawton

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Time and method of notification: 5-6-2009, 11:00; E-mail

Name of Caltrans Engineer notified: Scott Kennedy

Time and method of notification: 5-6-2009, 11:00; Verbal

QC Inspector's Name: Mr. Ken

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 Serge Sinevod, 134-8257-0045, who represents the Office of Structural Materials for your project.

Inspected By:	Sinevod,Serge	ASMR
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: 06-May-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: 05.03.06-000228

Subject: NCR No. ZPMC-0236

Reference Description: Linear Indication (UT) / Quality Control / Tower / Type 3B Strut

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:**

Remarks:

During random verification Ultrasonic Testing (UT) of Tower Strut Component #WD1-A 467-28M-3, QA discovered a Class A indication approximately 16mm in length and at a depth of 19mm. This weld was previously tested and accepted by ZPMC QC UT Technicians.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance that addresses the failure of Quality Control to identify the linear indication (UT). Provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences.

In addition to the Quality Control failure, propose a resolution for the identified material/workmanship non-conformance documenting that the repaired weld is in compliance with the contract requirements.

Transmitted by: Scott Kennedy Sr. Bridge Engineer

Attachments: ZPMC-0236

cc: Rick Morrow, Gary Pursell, Mark Woods, Jason Tom

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000228

Subject: NCR No. ZPMC-0236

Dated: 20-May-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000232 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has generated an internal NCR for this nonconformance, repaired and re-inspected the welds as required. ZPMC has generated an internal NCR for this nonconformance, repaired and re-inspected the welds as required. Attached is documentation of work performed regarding this NCR. ZPMC requests this NCR be closed

Submitted by:

Attachment(s): ABF-NPR-000232R00

Caltrans' comments:

Status: AAP

Date: 26-May-2009

The response is acceptable, but the Non-Conformance is not closed.

Please provide documentation of the weld repairs that were performed and that the repairs were acceptable. The Department will review the Contractor's proposal to close Non-Conformance ZPMC-0236 at that time.

Submitted by: Wright, Doug

Date: 26-May-2009

Attachment(s):

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000228

Subject: NCR No. ZPMC-0236

Dated: 08-Jun-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000232 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has included inspection documentation for closure of this NCR.
ZPMC has included inspection documentation for closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000232R01;

Caltrans' comments:

Status: CLO

Date: 11-Jun-2009

The proposed resolution is acceptable. The weld in question (WD1-A 467-28M-3A/B) has been accepted by VT and UT as shown in the attached documents. The Department concurs that Non-Conformance ZPMC-0236 is closed.

Submitted by: Wright, Doug

Date: 11-Jun-2009

Attachment(s):



周数

#

日期

2009

Visual Weld Inspection Report
焊缝目视检查报告

Girder/ 梁:

First lifting

Tower/ 塔:

Tower (W)

Caltrans Contract No.

04-0120F4

州合同编号

Project No.:

San Francisco Oakland Bay Bridge

项目名称

美国海湾大桥

Project No.:

ZP06-787

项目编号:

Quality Control Representative:

质检代表:

CWI:

检验员:

Lin Yang 08021721

Quality Assurance Manager

~Approval

质量控制经理:

Weld No.	焊缝编号	Welder I.D.#	焊工识别号	Location	位置	Welding consumables	焊接材料	Undercut	咬边	Porosity	气孔	Over lap	焊瘤	Crater	弧坑	Arc strike	电弧擦伤	Spatters	飞溅	Crack	裂纹	Accept or Reject	接受或拒收	Accept or Reject after repair	返修后接受或拒收	
WD1-A467-28M-3-3A/B		057258		2G		E9018M-H4R		✓		✓		✓		✓		✓		✓		✓		ACC	NA	NA	NA	
<p>ZPMC-0236</p> <p>Final V7/V7 reports</p>																										

After root weld

After cover pass

After CWR or WR No.:

After HSR No: HSR(I)-7892

Others

#R787-QCP-603



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 T787-UT-1757 DATE 2009.05.09 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: FIRST LIFTING SKIN E STRUT PLATE DRAWING NO.: WD1-A467-28M-3 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, 2009

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 IIV BLOCK TYPE II C.M.C A709SL-GR485 75/32mm

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*77Mm	Changchao	45°	2.5MHz	18*77Mm
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
WD1-A467-28M-3-3A/B		70				33									ACC.	100%

AFTER HSR1(T)-7992

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EXAMINED BY 主探 <i>Cary X. Shan</i> 09.05.09 LEVEL - II SIGN / DATE 质量经理 / QCM 签字 SIGN / 日期 DATE	REVIEWED BY 审核 <i>Zhu</i> LEVEL - II SIGN / DATE 用户 CUSTOMER 签字 SIGN / 日期 DATE
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Bay Area Branch
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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, PRC**Report No:** NCS-000222**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 16-Jun-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0236**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-2009**Description of Non-Conformance:**

During random verification Ultrasonic Testing (UT) of Tower Strut Component #WD1-A 467-28M-3, QA discovered a Class A indication approximately 16mm in length and at a depth of 19mm. This weld was previously tested and accepted by ZPMC QC UT Technicians.

Contractor's proposal to correct the problem:

Repair rejectable indication.

Corrective action taken:

Repair has been performed and an Ultrasonic Testing (UT) report indicating sound weld has been submitted. The strut has been green tagged.

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 Serge Sinevod, 134-8257-0045, who represents the Office of Structural Materials for your project.

Inspected By: Sinevod, Serge

Quality Assurance Inspector

Reviewed By: Wahbeh, Mazen

QA Reviewer