

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



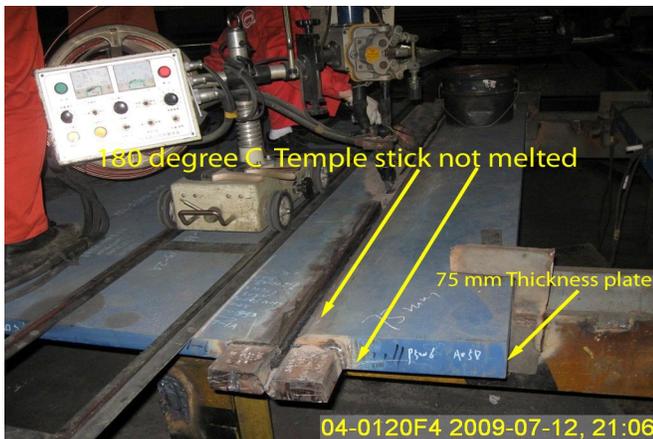
Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-000345**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 12-Jul-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0319**Type of problem:**

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

Reference Description: Inadequate pre-heat on Strut Type 3 Web Plate butt welds**Description of Non-Conformance:**

QA observed Submerged Arc Welding without proper pre-heat at Strut Type 3 Web Plate weld joints NSD1-A6002-13,14,15-2A. The recorded temperature at the weld and adjacent base metal was less than the 180 degrees Celcius required by the approved WPS.

**Applicable reference:**

Welding Procedure Specification WPS-B-T-4221-B-U3C-S-1 specifies a minimum pre-heat of 180 degrees Celcius.

Who discovered the problem: Dilip Chakrabarti**Name of individual from Contractor notified:** Don Walton**Time and method of notification:** 7/12/2009, 21:00; Verbal**Name of Caltrans Engineer notified:** Scott Kennedy**Time and method of notification:** 7/13/2009, 8:00; Verbal**QC Inspector's Name:** Mr. Yu Zhi Lai

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

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
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Reviewed By:	Wahbeh,Mazen	SMR
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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:	14-Jul-2009
Dear:	Mr. Charles Kanapicki	Contract No:	04-0120F4 04-SF-80-13.2 / 13.9
Attention:	Mr. Thomas Nilsson Project/Fabrication Manager	Job Name:	SAS Superstructure
Subject:	NCR No. ZPMC-0319	Document No:	05.03.06-000308
Reference Description:	Preheat / Type 3 Strut / Butt Welds		

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:** 02

Remarks:

QA observed Submerged Arc Welding without proper pre-heat at Strut Type 3 Web Plate weld joints NSD1-A6002-13,14,15-2A. The recorded temperature at the weld and adjacent base metal was less than the 180 degrees Celcius required by the approved WPS.

Welding Procedure Specification WPS-B-T-4221-B-U3C-S-1 specifies a minimum pre-heat of 180 degrees Celcius.

Action Required and/or Action Taken:

Propose a resolution for this systematic non-conformance including documentation that the welds placed are in compliance with the contract requirements. In addition to addressing Production’s failure to perform the required preheat of the material, address the failure of Quality Control to identify the inadequate preheat. Provide documentation of the steps/actions taken by Production and Quality Control to prevent future occurrences. Also detail what steps/actions are being taken by ABFJV to address the quality control failures of ABFJV’s fabricator/ZPMC.

Recent failures by Quality Control to identify and Production to perform the required preheating of the material have resulted in the issuance of NCR ZPMC-0202, ZPMC-0233, ZPMC-0249, ZPMC-0251, ZPMC-0259, ZPMC-0262 and ZPMC-0275 (Tower).

Transmitted by: Scott Kennedy Sr. Bridge Engineer

Attachments: ZPMC-0319

cc: Rick Morrow, Gary Pursell, Mark Woods, Doug Coe

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000308

Subject: NCR No. ZPMC-0319

Dated: 24-Aug-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000319 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ABF QA lead inspectors have been informed to increase monitoring of ZPMC QC regarding preheat temperatures. ABF has informed ZPMC QC supervision of this nonconformance.

ABF QA lead inspectors have been informed to increase monitoring of ZPMC QC regarding preheat temperatures. ABF has informed ZPMC QC supervision of this nonconformance. ZPMC will submit the necessary inspection reports at a later date to close this NCR.

Submitted by:

Attachment(s): ABF-NPR-000319R00

Caltrans' comments:

Status: AAP

Date: 31-Aug-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-0319 at that time.

The Non-Destructive Testing (NDT) for these welds should be at least 72 hours after welding to ensure that there are no delayed cracks from any possible hydrogen contamination.

Submitted by: Wright, Doug

Date: 31-Aug-2009

Attachment(s):

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000308

Subject: NCR No. ZPMC-0319

Dated: 15-Dec-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000319 **Rev:** 01

Contractor's Proposed Resolution:

Reference Resolution: Per Caltrans' comments to ABFJV's NPR, ZPMC is providing documentation that the welds are acceptable after welding was complete. Based on that ZPMC requests closure of the NCR.

Per Caltrans' comments to ABFJV's NPR, ZPMC is providing documentation that the welds are acceptable after welding was complete. Based on that ZPMC requests closure of the NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000319R01;

Caltrans' comments:

Status: CLO

Date: 16-Dec-2009

The proposed resolution is acceptable. The Department concurs that Non-conformance ZPMC-0319 is closed.

Submitted by: Lee, Ken

Date: 16-Dec-2009

Attachment(s):



No. T-100

LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2009-12-14

REGARDING: NCR-000345 (ZPMC-0319)

ZPMC received NCR-000345 (ZPMC-0319), it mentioned that CT inspector observed that ZPMC personnel performed Submerged Arc Welding without proper preheating at Strut Type 3 Web Plate weld joints ND1-A6002-13,14,15-2A. CT's record temperature at the weld and base metal was less than the 180 degrees Celsius required by the approved WPS-B-T-4221-B-U3C-S-1.

ZPMC had already realized this problem and inculcated the work team to enhance the management and control of preheating, and it must be checked by QC before welding and during welding in compliance with proper WPS. And, also, ZPMC finished these welds on July and NDT person conducted the work on August, so 72 hours request can be ensure. Here attached the related VT and NDT reports, the result shows the preheating issue didn't influence the weld quality.

So ZPMC hope CT could take a review and close this NCR.

ATTACHMENT:

NCR-000345 (ZPMC-0319)

T-VT-8544

T787-UT-2108

T787-MT-5547

Zhao Jia Cheng
2009-12-14



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: 14-Jul-2009
Contract No: 04-0120F4
04-SF-80-13.2 / 13.9
Job Name: SAS Superstructure
Document No: 05.03.06-000308
Dear: Mr. Charles Kanapicki
Attention: Mr. Thomas Nilsson Project/Fabrication Manager
Subject: NCR No. ZPMC-0319
Reference Description: Preheat / Type 3 Strut / Butt Welds

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

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- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

Material Location: Tower Lift: 02

Remarks:

QA observed Submerged Arc Welding without proper pre-heat at Strut Type 3 Web Plate weld joints NSD1-A6002-13,14,15-2A. The recorded temperature at the weld and adjacent base metal was less than the 180 degrees Celcius required by the approved WPS.

Welding Procedure Specification WPS-B-T-4221-B-U3C-S-1 specifies a minimum pre-heat of 180 degrees Celcius.

Action Required and/or Action Taken:

Propose a resolution for this systematic non-conformance including documentation that the welds placed are in compliance with the contract requirements. In addition to addressing Production's failure to perform the required preheat of the material, address the failure of Quality Control to identify the inadequate preheat. Provide documentation of the steps/actions taken by Production and Quality Control to prevent future occurrences. Also detail what steps/actions are being taken by ABFJV to address the quality control failures of ABFJV's fabricator/ZPMC.

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Transmitted by: Scott Kennedy Sr. Bridge Engineer
Attachments: ZPMC-0319

cc: Rick Morrow, Gary Pursell, Mark Woods, Doug Coe
File: 05.03.06

05.03.06-000308.NCT

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
City: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, PRC

Report No: NCR-000345

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 12-Jul-2009

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

NCR #: ZPMC-0319

Type of problem:

- | | | | | | | |
|--------------|-------------------------------------|------------|--------------------------|--------------|--------------------------|-------------------------|
| Welding | <input checked="" type="checkbox"/> | Concrete | <input type="checkbox"/> | Other | <input type="checkbox"/> | |
| Welding | <input type="checkbox"/> | Curing | <input type="checkbox"/> | Procedural | <input type="checkbox"/> | Bridge No: 34-0006 |
| Joint fit-up | <input type="checkbox"/> | Coating | <input type="checkbox"/> | Other | <input type="checkbox"/> | Component: Strut Type 3 |
| Procedural | <input checked="" type="checkbox"/> | Procedural | <input type="checkbox"/> | Description: | Strut Type 3 Web Plate | |

Reference Description: Inadequate pre-heat on Strut Type 3 Web Plate butt welds

Description of Non-Conformance:

QA observed Submerged Arc Welding without proper pre-heat at Strut Type 3 Web Plate weld joints NSD1-A6002-13,14,15-2A. The recorded temperature at the weld and adjacent base metal was less than the 180 degrees Celcius required by the approved WPS.



Applicable reference:

Welding Procedure Specification WPS-B-T-4221-B-U3C-S-1 specifies a minimum pre-heat of 180 degrees Celcius.

Who discovered the problem: Dilip Chakrabarti
Name of individual from Contractor notified: Don Walton
Time and method of notification: 7/12/2009, 21:00; Verbal
Name of Caltrans Engineer notified: Scott Kennedy
Time and method of notification: 7/13/2009, 8:00; Verbal
QC Inspector's Name: Mr. Yu Zhi Lai

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

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



周数

83#

日期

2009. 08. 10

T-V-8894

Visual Weld Inspection Report 焊缝目视检查报告

Girder/梁:

first lifting

Caltrans Contract No.
加州合同编号

04-0120F4

Tower/塔:

Tower (N)

Project No.:
项目名称

San Francisco Oakland Bay Bridge
美国海湾大桥

Quality Assurance Manager
~Approval
质量控制经理:

CWI:
检验员:

XUTUN

Project No.:
项目编号:

ZP06-787

08.02.17.201

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	Overlap 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	Repair 返修	Accept or Reject after 返修后接受
ND1-A6002-11-1A/B	209051	1G	LA-85	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
ND1-A6002-12-1A/B	209051	1G	LA-85	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
ND1-A6002-13-1A/B	209051	1G	LA-85	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
ND1-A6002-14-1A/B	209051	1G	LA-85	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
ND1-A6002-15-1A/B	209051	1G	LA-85	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
ND1-A6002-11-2A/B	209051	1G	LA-85	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
ND1-A6002-12-2A/B	209051	1G	LA-85	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
ND1-A6002-13-2A/B	209051	1G	LA-85	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
ND1-A6002-14-2A/B	209051	1G	LA-85	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
ND1-A6002-15-2A/B	209051	1G	LA-85	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA

After root weld

After cover pass

#R787-QCP-603

After HSR No: HSR1 (1) - 9892

Others

" ✓ " is no defects. " X " is defects. "NA" is not applicable.



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 T787-UT-2108 DATE 2009.08.12 PAGE 1 OF 3 Revision No: 0

PROJECT NO.: 工程编号 ZP06-767 CONTRACTOR: CALTRANS

ITEMS NAME: FIRST LIFTING TOWER(N) DRAWING NO.: ND1-A6002 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
 SAW BUTT 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 IIW BLOCK TYPE II C.M.C A709SL-Gr485/Gr345 75/45/60/28mm

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
ND1-A6002-11-3A/B		70					34								ACC.	100%
ND1-A6002-12-3A/B		70					34								ACC.	100%
ND1-A6002-13-3A/B		70					34								ACC.	100%
ND1-A6002-14-3A/B		70					34								ACC.	100%
ND1-A6002-15-3A/B		70					34								ACC.	100%
ND1-A6002-11-4A/B		70					34								ACC.	100%
ND1-A6002-12-4A/B		70					34								ACC.	100%
ND1-A6002-13-4A/B		70					34								ACC.	100%

EXAMINED BY 主探 Tang xing shan <i>Tang Xingshan 08.12</i> LEVEL - II SIGN / DATE	REVIEWED BY 审核 <i>Tang Xingshan 08.12</i> LEVEL - II SIGN / DATE
质量经理 / QCM _____ 签字 SIGN / 日期 DATE	用户 CUSTOMER _____ 签字 SIGN / 日期 DATE



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 T787-UT-2106 DATE 2009.08.12 PAGE 2 OF 3 Revision No: 0

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 a	Reference Level b	Attenuation Factor c	Indication Rating d	LOCATION OF DISCONTINUITY 不连续位置(mm)						
									Length 长度	Sound Path 声程	Depth from Surface 距表面深度	From'X 距X	From'Y 距Y		
ND1-A6002-14-4A/B		70				34								ACC.	100%
ND1-A6002-15-4A/B		70				34								ACC.	100%
ND1-A6002-11-1A/B		70				34								ACC.	100%
ND1-A6002-12-1A/B		70				34								ACC.	100%
ND1-A6002-13-1A/B		70				34								ACC.	100%
ND1-A6002-14-1A/B		70				34								ACC.	100%
ND1-A6002-15-1A/B		70				34								ACC.	100%
ND1-A6002-11-2A/B		70				34								ACC.	100%
ND1-A6002-12-2A/B		70				34								ACC.	100%
ND1-A6002-13-2A/B		70				34								ACC.	100%
ND1-A6002-14-2A/B		70				34								ACC.	100%
ND1-A6002-15-2A/B		70				34								ACC.	100%
ND1-A6002-16-2A/B		70				34								ACC.	100%
ND1-A6002-16-4A/B		70				34								ACC.	100%
ND1-A6002-17-2A/B		70				34								ACC.	100%
ND1-A6002-17-4A/B		70				34								ACC.	100%
ND1-A6002-18-2A/B		70				34								ACC.	100%
ND1-A6002-16-1A/B		70				34								ACC.	100%
ND1-A6002-16-3A/B		70				34								ACC.	100%
ND1-A6002-17-1A/B		70				34								ACC.	100%
ND1-A6002-17-3A/B		70				34								ACC.	100%
ND1-A6002-18-1A/B		70				34								ACC.	100%

EXAMINED BY 主探 Tang xing shan LEVEL - II SIGN / DATE	REVIEWED BY 审核 Tang xing shan 09.09.12 LEVEL - II SIGN / DATE
质量经理 / QCM _____ 签字 SIGN / 日期 DATE	用户 CUSTOMER _____ 签字 SIGN / 日期 DATE



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 T787-16T-5547		DATE日期 2009.06.16		PAGE OF页码 1/5		Revision No: 0			
PROJECT NO. 工程编号: ZP06-767			CONTRACTOR: 用户: CALTRANS						
DRAWING NO. 图号: ND1-A6002 STRUT E LIMB PLATE			CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4						
REFERENCING CODE 参考规范编码 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 , 2009			
EQUIPMENT 设备 MT YOKE		MANUFACTURER 制造商 PARKER		MODEL NO. 样式编号 B310S		SERIAL NO. 连续编号 5620 5395 5617			
MAGNETIZING METHOD 磁化方法		Continuous magnetic yoke 磁轭式连续法		CURRENT 电流		AC			
PARTICLE TYPE 磁粉类型		Dry magnet powder 干磁粉		YOKE SPACING 磁轭间距		70~150mm			
MATERIAL TO BE EXAMINED 检测材料		<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		A709SL-Gr485/Gr345 75/45/60/28mm			
WELDING PROCESS 焊接方法			SAW		TYPE OF JOINT 焊缝类型			BUTT	
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						
ND1-A6002-11-3A				ACC.		100%MT			
ND1-A6002-11-3B				ACC.		100%MT			
ND1-A6002-12-3A				ACC.		100%MT			
ND1-A6002-12-3B				ACC.		100%MT			
ND1-A6002-13-3A				ACC.		100%MT			
ND1-A6002-13-3B				ACC.		100%MT			
ND1-A6002-14-3A				ACC.		100%MT			
ND1-A6002-14-3B				ACC.		100%MT			
ND1-A6002-15-3A				ACC.		100%MT			
ND1-A6002-15-3B				ACC.		100%MT			
ND1-A6002-11-1A				ACC.		100%MT			
ND1-A6002-11-1B				ACC.		100%MT			
ND1-A6002-12-1A				ACC.		100%MT			
ND1-A6002-12-1B				ACC.		100%MT			
EXAMINED BY主操 Gu Yunwu <i>Gu Yunwu</i>				REVIEWED BY 审核 <i>Xu Hai</i>					
LEVEL - II SIGN 签名 / DATE日期 <i>09.08.16</i>				LEVEL-II SIGN / DATE日期 <i>09.8.16</i>					
质量经理 / QCM				用户CUSTOMER					
签字 SIGN / 日期 DATE				签字 SIGN / 日期 DATE					



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 T787-MT-5547 DATE日期 2009.08.16 PAGE OF页码 2/5 Revision No: 0

PROJECT NO. 工程编号: ZP06-767 CONTRACTOR: 用户: CALTRANS

DRAWING NO. 图号: ND1-A6002 CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4
STRUT E LIMB FLATE

REFERENCING CODE 参考规范编码: 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. 26ST, 2009

EQUIPMENT 设备: MT YOKE MANUFACTURER 制造商: PARKER MODEL NO. 样式编号: B310S SERIAL NO. 连续编号: 5620 5395 5617

MAGNETIZING METHOD 磁化方法: Continuous magnetic yoke 磁轭式连续法 CURRENT 电流: AC

PARTICLE TYPE 磁粉类型: Dry magnet powder 干磁粉 YOKE SPACING 磁轭间距: 70~150mm

MATERIAL TO BE EXAMINED 检测材料: WELDING 焊接件 Material & thickness 母材,厚度: A709SL-Gr485/Gr345
 CASTING 铸件 FORGING 锻造

WELDING PROCESS 焊接方法: SAW TYPE OF JOINT 焊缝类型: BUTT

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			
ND1-A6002-13-1A				ACC.		100%MT
ND1-A6002-13-1B				ACC.		100%MT
ND1-A6002-14-1A				ACC.		100%MT
ND1-A6002-14-1B				ACC.		100%MT
ND1-A6002-15-1A				ACC.		100%MT
ND1-A6002-15-1B				ACC.		100%MT
ND1-A6002-11-2A				ACC.		100%MT
ND1-A6002-11-2B				ACC.		100%MT
ND1-A6002-12-2A				ACC.		100%MT
ND1-A6002-12-2B				ACC.		100%MT
ND1-A6002-13-2A				ACC.		100%MT
ND1-A6002-13-2B				ACC.		100%MT
ND1-A6002-14-2A				ACC.		100%MT
ND1-A6002-14-2B				ACC.		100%MT

EXAMINED BY 主探: Gu Yunwu *[Signature]* REVIEWED BY 审核: *[Signature]*
LEVEL - II SIGN 签名 / DATE日期: 09.08.16 LEVEL-II SIGN / DATE日期: 09.08.16

质量经理 / QCM 用户CUSTOMER

签字 SIGN / 日期 DATE 签字 SIGN / 日期 DATE



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 T787-MT-5547

DATE日期 2009.06.16

PAGE OF页码 3/5

Revision No: 0

PROJECT NO.

ZP06-787

CONTRACTOR:

CALTRANS

DRAWING NO.

ND1-A6002

CALTRANS CONTRACT NO.:

04-0120F4

图号:

STRUT E LIMB PLATE

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, 2008

EQUIPMENT 设备

MANUFACTURER 制造商

MODEL NO. 样式编号

SERIAL NO. 连续编号

MT YOKE

PARKER

B310S

5620 5395 5617

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

A709SL-Gr485/Gr345

EXAMINED

□ CASTING 铸件

母材, 厚度

75/45/60/28mm

检测材料

□ FORGING 锻造

WELDING PROCESS

SAW

TYPE OF JOINT

BUTT

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			
ND1-A6002-15-2A				ACC.		100%MT
ND1-A6002-15-2B				ACC.		100%MT
ND1-A6002-10-5A				ACC.		100%MT
ND1-A6002-10-5B				ACC.		100%MT
ND1-A6002-11-5A				ACC.		100%MT
ND1-A6002-11-5B				ACC.		100%MT
ND1-A6002-12-5A				ACC.		100%MT
ND1-A6002-12-5B				ACC.		100%MT
ND1-A6002-10-6A				ACC.		100%MT
ND1-A6002-10-6B				ACC.		100%MT
ND1-A6002-11-6A				ACC.		100%MT
ND1-A6002-11-6B				ACC.		100%MT
ND1-A6002-12-6A				ACC.		100%MT
ND1-A6002-12-6B				ACC.		100%MT

EXAMINED BY主探

Gu Yunwu

Gu Yunwu

REVIEWED BY 审核

LEVEL-II SIGN 签名 / DATE日期

Xu Hai

质量经理 / QCM

LEVEL-II SIGN / DATE日期

07.8.16

签字 SIGN / 日期 DATE

用户CUSTOMER

(FORM# ZPQC-MT01)

签字 SIGN / 日期 DATE



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 T787-MT-5547 DATE日期 2009.08.16 PAGE OF 页码 4/5 Revision No: 0

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

DRAWING NO. 图号: ND1-A6002 CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4
STRUT E LIMB PLATE

REFERENCING CODE 参考规范编码: 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. 28th, 2009

EQUIPMENT 设备: MT YOKE MANUFACTURER 制造商: PARKER MODEL NO. 样式编号: B310S SERIAL NO. 连续编号: 5620 5395 5617

MAGNETIZING METHOD 磁化方法: Continuous magnetic yoke 磁轭式连续法 CURRENT 电流: AC

PARTICLE TYPE 磁粉类型: Dry magnet powder 干磁粉 YOKE SPACING 磁轭间距: 70~150mm

MATERIAL TO BE EXAMINED 检测材料: WELDING 焊接件 Material & thickness 母材, 厚度: A709SL-Gr485/Gr345
 CASTING 铸件 FORGING 锻造

WELDING PROCESS 焊接方法: SAW TYPE OF JOINT 焊缝类型: BUTT

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			
ND1-A6002-16-5A				ACC.		100%MT
ND1-A6002-16-5B				ACC.		100%MT
ND1-A6002-17-5A				ACC.		100%MT
ND1-A6002-17-5B				ACC.		100%MT
ND1-A6002-18-5A				ACC.		100%MT
ND1-A6002-18-5B				ACC.		100%MT
ND1-A6002-16-6A				ACC.		100%MT
ND1-A6002-16-6B				ACC.		100%MT
ND1-A6002-17-6A				ACC.		100%MT
ND1-A6002-17-6B				ACC.		100%MT
ND1-A6002-18-6A				ACC.		100%MT
ND1-A6002-18-6B				ACC.		100%MT
ND1-A6002-11-4A				ACC.		100%MT
ND1-A6002-11-4B				ACC.		100%MT

EXAMINED BY 主探: Gu Yunwu REVIEWED BY 审核: Xu Hai
LEVEL - II SIGN 签名 / DATE 日期: 08.16 LEVEL-II SIGN / DATE 日期: 08.16
质量经理 / QCM 用户 CUSTOMER
签字 SIGN / 日期 DATE 签字 SIGN / 日期 DATE



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 T787-MT-5547		DATE日期 2009.06.16		PAGE OF 页码 5/5		Revision No: 0	
PROJECT NO. 工程编号: ZP06-787				CONTRACTOR: 用户: CALTRANS			
DRAWING NO. 图号: ND1-A6002 STRUT E LIMB PLATE				CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4			
REFERENCING CODE 参考规范编码 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 , 2009	
EQUIPMENT 设备 M.T YOKE		MANUFACTURER 制造商 PARKER		MODEL NO. 样式编号 B310S		SERIAL NO. 连续编号 5620 5395 5617	
MAGNETIZING METHOD 磁化方法		Continuous magnetic yoke 磁轭式连续法		CURRENT 电流		AC	
PARTICLE TYPE 磁粉类型		Dry magnet powder 干磁粉		YOKE SPACING 磁轭间距		70~150mm	
MATERIAL TO BE EXAMINED 检测材料		<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		A709SL-Gr485/Gr345 75/45/60/28mm	
WELDING PROCESS 焊接方法				SAW			
				TYPE OF JOINT 焊缝类型			
				BUTT			
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				
ND1-A6002-12-4A				ACC.		100%MT	
ND1-A6002-12-4B				ACC.		100%MT	
ND1-A6002-13-4A				ACC.		100%MT	
ND1-A6002-13-4B				ACC.		100%MT	
ND1-A6002-14-4A				ACC.		100%MT	
ND1-A6002-14-4B				ACC.		100%MT	
ND1-A6002-15-4A				ACC.		100%MT	
ND1-A6002-15-4B				ACC.		100%MT	
AFTER HSR1(T)-9892,9864							
BLANK							
EXAMINED BY 主探 Gu Yunwu <i>[Signature]</i> LEVEL - II SIGN 签名 / DATE日期 07.8.16 质量经理 / QCM				REVIEWED BY 审核 <i>[Signature]</i> LEVEL-II SIGN / DATE日期 07.8.16 用户CUSTOMER			
签字 SIGN / 日期 DATE				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, PRC**Report No:** NCS-000380**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 16-Dec-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0319**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: 12-Jul-2009**Description of Non-Conformance:**

QA observed Submerged Arc Welding without proper pre-heat at Strut Type 3 Web Plate weld joints NSD1-A6002-13,14,15-2A. The recorded temperature at the weld and adjacent base metal was less than the 180 degrees Celcius required by the approved WPS.

Contractor's proposal to correct the problem:

Contractor to remind ZPMC that weld joints must be preheated in accordance to the WPS.

Corrective action taken:

ZPMC has instructed QC and production personnel to enhance the management and control of preheating. Furthermore, NDT documentation for the affected welds has been submitted indicating weld soundness.

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, 139-1686-1597, who represents the Office of Structural Materials for your project.

Inspected By: Sinevod, Serge **Quality Assurance Inspector****Reviewed By:** Wahbeh, Mazen **QA Reviewer**