

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-000922
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 25-Nov-2010
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0884

Type of problem:

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: East Tower Lift 6 Skin plate F
Procedural	Procedural	Description:	

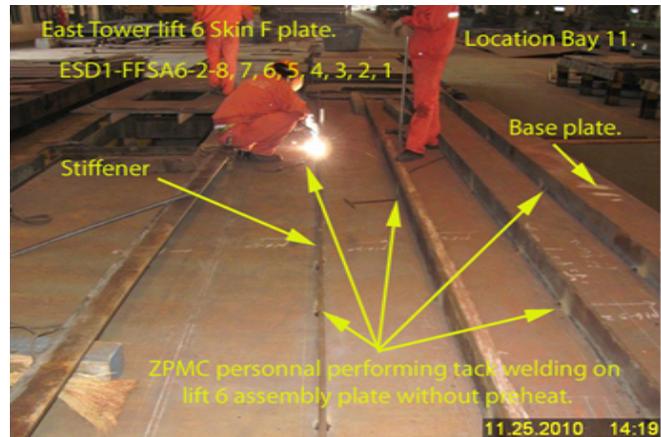
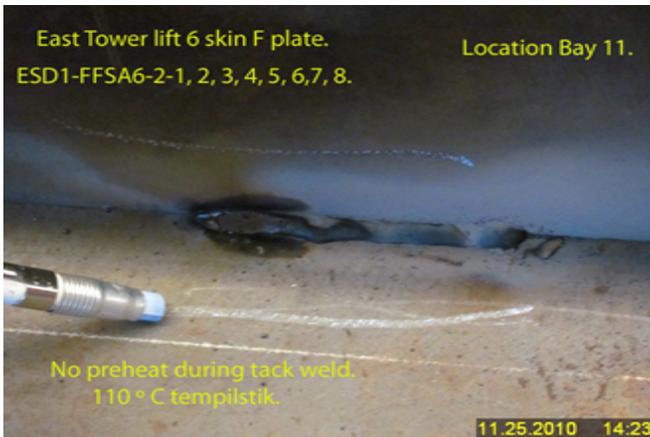
Reference Description: Preheat doesn't follow the WELD PROCEDURE REQUIREMENTS for New Welds

Description of Non-Conformance:

During Caltrans QA in process observations of the fabrication of ESD1-FFSA6-2, the QA discovered the following issue:

ZPMC welding personnel did not appear to be following the WELD PROCEDURE REQUIREMENTS FOR NEW WELDS (Rager/ McQuaid), i.e. Preheat shall be applied in such a manner to provide a minimum temperature in the area of the weld of 165 degree Celsius.

- The welds are identified as: ESD1-FFSA6-2-1, 2, 3, 4, 5, 6, 7, 8.
- The welding process used was SMAW
- The area was not preheated.
- The welds are Fillet Welds joining stiffener plates to skin plate
- The member is not SPCM
- ESD1-FFSA6-2 is located in Bay 11.



Applicable reference:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

WELD PROCEDURE REQUIREMENTS FOR NEW WELDS (Rager / McQuaid)

2. Assembly:f: Preheat shall be applied in such a manner to provide a minimum temperature in the area of the weld of 165°C.

Who discovered the problem: Shailesh Gaikwad

Name of individual from Contractor notified: Xin Xiao Guang

Time and method of notification: 15:30, 11-25-2010, Verbal

Name of Caltrans Engineer notified: Sean Eagen

Time and method of notification: 1230hrs, 11-26-2010, email

QC Inspector's Name: Mr. Libin

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

NA

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: Devey,Jim

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: 26-Nov-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-0884

Job Name: SAS Superstructure
Document No: 05.03.06-000879

Reference Description: Preheat doesn't follow the WELD PROCEDURE REQUIRMENTS for New 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:** 06

Remarks:

During Caltrans QA in process observations of the fabrication of ESD1-FFSA6-2, the QA discovered the following issue:
 ZPMC welding personnel did not appear to be following the WELD PROCEDURE REQUIREMENTS FOR NEW WELDS (Rager/ McQuaid), i.e. Preheat shall be applied in such a manner to provide a minimum temperature in the area of the weld of 165 degree Celsius.

- The welds are identified as: ESD1-FFSA6-2-1, 2, 3, 4, 5, 6, 7, 8.
- The welding process used was SMAW
- The area was not preheated.
- The welds are Fillet Welds joining stiffener plates to skin plate
- The member is not SPCM
- ESD1-FFSA6-2 is located in Bay 11.

Action Required and/or Action Taken:

Propose resolutions for the identified non-conformance items and document that the various deficiencies have been brought in compliance with contract requirements. Also propose a resolution that addresses the apparent failure of Quality Control to identify the non-conformance with the appropriate Welding Procedure Specification (WPS). 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: Sean Eagen Transportation Engineer
Attachments: ZPMC-0884

NCT

(*Continued Page 2 of 2*)

cc: Rick Morrow, Peter Siegenthaler, Brian Boal, Mark Woods, Contract Files, Ching Chao, Bill Casey

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000879

Subject: NCR No. ZPMC-0884

Dated: 01-Dec-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000877 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: As this NCR was written without a contractual basis it should be withdrawn.

The "NEW WELD PROCEDURE (Rager/McQuaid)" quoted as the basis for this NCR is not a contract document only a recommendation from the QA/QC Committee. If the Department wants to incorporate the QA/QC committee's recommendations as a contract requirement a contract change order should be issued. As this NCR was written without a contractual basis it should be withdrawn.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000877R00

Caltrans' comments:

Status: REJ

Date: 02-Dec-2010

We understand your response. However, successful NDT will close this NCR.

Submitted by: Rizzardo, Gina

Attachment(s):

Date: 02-Dec-2010

NCR PROPOSED RESOLUTION

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

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000879

Subject: NCR No. ZPMC-0884

Dated: 07-Dec-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000877 **Rev:** 01

Contractor's Proposed Resolution:

Reference Resolution: We understand your response and we will not submit the normal NCR closure package with NDT reports for this and expect that CT will close these as the green tags for these components are issued.

We understand your response and we will not submit the normal NCR closure package with NDT reports for this and expect that CT will close these as the green tags for these components are issued.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000877R01

Caltrans' comments:

Status: REJ

Date: 08-Dec-2010

There are no records for issued green tags on these components. Please submit the NDT reports in order to close out this NCR.

Submitted by: Rizzardo, Gina

Attachment(s):

Date: 08-Dec-2010

NCR PROPOSED RESOLUTION

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

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000879

Subject: NCR No. ZPMC-0884

Dated: 15-Feb-2011

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000877 Rev: 02

Contractor's Proposed Resolution:

Reference Resolution:

See attached NDT results to show the weld is acceptable. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000877R02;

Caltrans' comments:

Status: CLO

Date: 15-Feb-2011

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0884 is closed.

Submitted by: Eagen, Sean

Attachment(s):

Date: 15-Feb-2011



TRANSMITTAL LETTER

PROJECT: S.F.O.B.B.

DATE:2011-02-14

TO: ROSEMARY/ABF JV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: TOWER NCR

SUBMITTED FOR YOUR APPROVAL AND SUBMITTAL TO CALTRANS

ENCLOSED WITH THIS TRANSMITTAL IS ONE COPY OF

- (01) LR: No. T-190
- (02) NCR-000923(ZPMC-0885)
- NCR-000900(ZPMC-0862)
- NCR-000922(ZPMC-0884)
- T787-MT-12379
- T787-MT-11526
- T787-MT-12395

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT

PLAN HOLDER:

Rosemary

DATE: 15:11
RECEIVED 14 FEB 2011

COMPANY:



PHONE NO.

PLAN NUMBER:N/A

#R787-QCP-102



No. T-190

LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2011-02-14

REGARDING:

NCR-000923(ZPMC-0885),NCR-000900(ZPMC-0862),NCR-000922(ZPMC-0884)

ZPMC received captioned NCRs, it mentioned that ZPMC didn't following the required preheating temperature of Weld Procedure Requirements for New Welds.

Here we attached related reports to show the welds were fine, hope CT could take a review and close these NCR.

ATTACHMENT:

NCR-000923(ZPMC-0885)

NCR-000900(ZPMC-0862)

NCR-000922(ZPMC-0884)

T787-MT-12379

T787-MT-11526

T787-MT-12395

zhang waeli 2011.2.14.

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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. Chin

Report No: NCR-000923

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 25-Nov-2010

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

NCR #: ZPMC-0885

Type of problem:

Welding Concrete Other

Welding Curing Procedural

Joint fit-up Coating Other

Procedural Procedural Description:

Bridge No: 34-0006

Component: Lift 6 Skin D to stiffener welding

Reference Description: Preheat and welding do not follow the WELD PROCEDURE REQUIREMENTS FOR NEW WELDS (Rager/ McQuaid)

Description of Non-Conformance:

ZPMC welding personnel did not appear to be following the WELD PROCEDURE REQUIREMENTS FOR NEW WELDS (Rager/McQuaid) (THE PROCEDURE).

- 1) Preheat not applied as per section 2-f.
- 2) Preheat not applied as per section 3-m.
- 3) Preheat not applied as per Section 4-e.

- The weld is identified as WSD1- FDSA6- 4 - 5
- The welding process used was FCAW
- The area was being preheated using Electric strip heaters
- The weld is a Fillet joining Skin D to Stiffener
- The member is not SPCM
- Component/Member is located in Bay no. 11



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Applicable reference:

WELD PROCEDURE REQUIREMENTS FOR NEW WELDS (Rager/McQuaid)

Section 1. This procedure is to be used for all new and totally replaced welds that are being made in conformance with the AWS D1.5 Bridge Welding Code, the Caltrans Special Provisions and this Welding Procedure.

Section 2. Assembly

f. Preheat shall be applied in such a manner to provide a minimum temperature in the area of the weld of 165°C.

Section 3. Preparation for Welding

k. Preheating using electric strip heaters to provide a continual preheat before and during welding are preferred.

l. Alternatively, preheating using gas preheating torches shall be applied to the weld joint and surrounding area in such a way that the entire area to be welded and all adjacent material out to a distance of 75mm in any direction is heated to the value shown in AWS D1.5, clause 12.14 (Table 12.4 as appropriate). Preheat temperature is always stated as a minimum value.

m. Preheat shall utilize the use of electric heaters and blankets and be applied in such a manner to provide a minimum temperature of 140°C at all times until the weld joint is post weld thermal treated. (This includes applying preheat for CJP welds made from both sides and backgouged.)

n. Preheat temperatures to be checked by Tempilstik: crayon or calibrated digital thermometer.

Section 4. Welding

e. Preheat shall be maintained in accordance with Section 3.k.~ 3.n. of this procedure.

Who discovered the problem: Baskar Govindarajan

Name of individual from Contractor notified: Xin Xiao Guang

Time and method of notification: 1510 hrs, 11/25/10, Verbal

Name of Caltrans Engineer notified: Sean Eagen

Time and method of notification: 1230hrs, 11/26/10, email

QC Inspector's Name: Shao Hai Long

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

NA

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: Devey, Jim

SMR

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 File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P.R. China

Report No: NCR-000900

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 23-Nov-2010

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

NCR #: ZPMC-0862

Type of problem:

Welding **Concrete** **Other**
Welding **Curing** **Procedural** **Bridge No:** 34-0006
Joint fit-up **Coating** **Other** **Component:** Tower Facade Plate
Procedural **Procedural** **Description:** Lift 4 Tower Facade Plate

Reference Description: Preheat doesn't follow the WELD PROCEDURE REQUIREMENTS for New Welds

Description of Non-Conformance:

During Caltrans QA in process observations of the fabrication of SD1-SFSA4-71, the QA discovered the following issue:

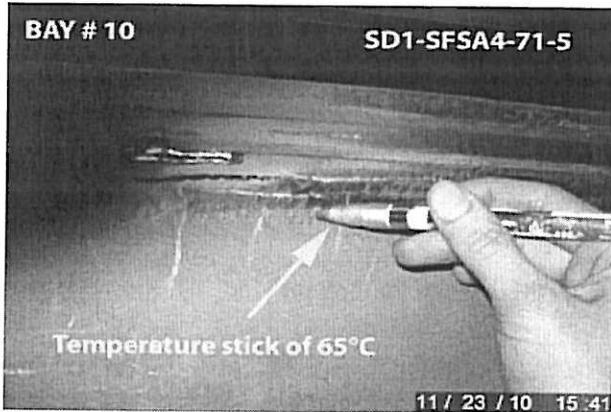
ZPMC welding personnel did not appear to be following the WELD PROCEDURE REQUIREMENTS FOR NEW WELDS (Rager/ McQuaid), i.e. Preheat shall be applied in such a manner to provide a minimum temperature in the area of the weld of 165 degree Celsius.

- The weld is identified as: SD1-SFSA4-71-5
- The welding process used was SMAW
- The area was being preheated using torch
- The weld is as Fillet joining top plate to side plate
- The component is not SPCM
- The component (SD1-SFSA4-71_ is located in Bay 10.



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



Applicable reference:

WELD PROCEDURE REQUIREMENTS FOR NEW WELDS

Section 2. Assembly

f. Preheat shall be applied in such a manner to provide a minimum temperature in the area of the weld of 165 degree Celsius.

Who discovered the problem: Robin Sharma

Name of individual from Contractor notified: Lu Yi Jun

Time and method of notification: 1600, 11/23/10, Verbal

Name of Caltrans Engineer notified: Sean Eagen

Time and method of notification: 1000, 11/24/10, Verbal

QC Inspector's Name: Jiang Xiao Bo

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

Comments:

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Inspected By: Ng, Michael

QA Inspector

Reviewed By: Devey, Jim

SMR

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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-000922

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 25-Nov-2010

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

NCR #: ZPMC-0884

Type of problem:

Welding Concrete Other

Welding Curing Procedural

Joint fit-up Coating Other

Procedural Procedural Description:

Bridge No.: 34-0006

Component: East Tower Lift 6 Skin plate F

Reference Description: Preheat doesn't follow the WELD PROCEDURE REQUIREMENTS for New Welds

Description of Non-Conformance:

During Caltrans QA in process observations of the fabrication of ESD1-FFSA6-2, the QA discovered the following issue:

ZPMC welding personnel did not appear to be following the WELD PROCEDURE REQUIREMENTS FOR NEW WELDS (Rager/ McQuaid), i.e. Preheat shall be applied in such a manner to provide a minimum temperature in the area of the weld of 165 degree Celsius.

-The welds are identified as: ESD1-FFSA6-2-1, 2, 3, 4, 5, 6, 7, 8.

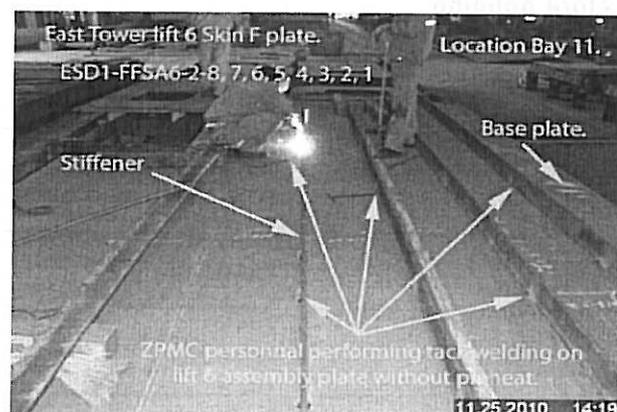
-The welding process used was SMAW

-The area was not preheated.

-The welds are Fillet Welds joining stiffener plates to skin plate

-The member is not SPCM

-ESD1-FFSA6-2 is located in Bay 11.



Applicable reference:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

WELD PROCEDURE REQUIREMENTS FOR NEW WELDS (Rager / McQuaid)

2. Assembly:f: Preheat shall be applied in such a manner to provide a minimum temperature in the area of the weld of 165°C.

Who discovered the problem: Shailesh Gaikwad

Name of individual from Contractor notified: Xin Xiao Guang

Time and method of notification: 15:30, 11-25-2010, Verbal

Name of Caltrans Engineer notified: Sean Eagen

Time and method of notification: 1230hrs, 11-26-2010, email

QC Inspector's Name: Mr. Libin

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

NA

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: Devey,Jim

SMR



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 T787-MT-12379		DATE日期 2010.12.31	PAGE OF页码 1/1	Revision No: 0
PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS		
DRAWING NO. 图号: WSD1-FDSA6-4 TOWER(W) SIXTH LIFTING D-SKIN STIFFENER		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 , 2011	
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 da400S	SERIAL NO. 连续编号 17371	
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	A709M-345T2 20/16mm	
WELDING PROCESS 焊接方法	FCAW	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			
WSD1-FDSA6-4-1				ACC.		10%MT
WSD1-FDSA6-4-2				ACC.		10%MT
WSD1-FDSA6-4-3				ACC.		10%MT
WSD1-FDSA6-4-4				ACC.		10%MT
WSD1-FDSA6-4-5				ACC.		10%MT
WSD1-FDSA6-4-6				ACC.		10%MT
WSD1-FDSA6-4-7				ACC.		10%MT
WSD1-FDSA6-4-8				ACC.		10%MT
AFTER HSR1(T)-11635						
BLANK						

EXAMINED BY主探 Fu Zhi qiang <i>Fu Zhiqiang</i>	REVIEWED BY审核 <i>Wang Wei</i>
LEVEL - II SIGN 签名 / DATE日期 <i>2010.12.31</i>	LEVEL-II SIGN / DATE日期 <i>2010.12.31</i>
质量经理 / QCM <i>Wang Wei</i> <i>2010.12.31</i>	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-11526 DATE日期 2010.12.03 PAGE OF页码 1/6 Revision No: 0

PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS	
DRAWING NO. 图号: SD1-SFSA4 FAÇADE		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 , 2010
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 DA-400S	SERIAL NO. 连续编号 17371
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	A709M-345T2 10/14/12mm
WELDING PROCESS 焊接方法	SMAW FCAW	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			
SD1-SFSA4-80-1				ACC.		10%MT
SD1-SFSA4-80-2				ACC.		10%MT
SD1-SFSA4-80-3				ACC.		10%MT
SD1-SFSA4-80-4				ACC.		10%MT
SD1-SFSA4-80-5				ACC.		10%MT
SD1-SFSA4-80-6				ACC.		10%MT
SD1-SFSA4-80-7				ACC.		10%MT
SD1-SFSA4-80-8				ACC.		10%MT
SD1-SFSA4-80-9				ACC.		10%MT
SD1-SFSA4-80-10				ACC.		10%MT
SD1-SFSA4-71-11				ACC.		10%MT
SD1-SFSA4-71-12				ACC.		10%MT
SD1-SFSA4-71-13				ACC.		10%MT
SD1-SFSA4-71-14				ACC.		10%MT

EXAMINED BY 主探 Fu Zhiqiang <i>Fu Zhiqiang</i>	REVIEWED BY 审核 <i>Wang Wei</i>
LEVEL - II SIGN 签名 / DATE日期 <i>2010.12.03</i>	LEVEL-II SIGN / DATE日期 <i>2010.12.03</i>
质量经理 / QCM <i>Lu Jia</i>	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-11526		DATE日期 2010.12.03	PAGE OF页码 2/6	Revision No: 0
PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS		
DRAWING NO. 图号: SD1-SFSA4 FAÇADE		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 , 2010	
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 DA-400S	SERIAL NO. 连续编号 17371	
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	A709M-345T2 10/14/12mm	
WELDING PROCESS 焊接方法	SMAW FCAW	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			
SD1-SFSA4-71-15				ACC.		10%MT
SD1-SFSA4-71-16				ACC.		10%MT
SD1-SFSA4-71-1				ACC.		10%MT
SD1-SFSA4-71-2				ACC.		10%MT
SD1-SFSA4-71-5				ACC.		10%MT
SD1-SFSA4-71-6				ACC.		10%MT
SD1-SFSA4-71-19				ACC.		10%MT
SD1-SFSA4-71-20				ACC.		10%MT
SD1-SFSA4-71-21				ACC.		10%MT
SD1-SFSA4-71-22				ACC.		10%MT
SD1-SFSA4-94-1				ACC.		10%MT
SD1-SFSA4-94-2				ACC.		10%MT
SD1-SFSA4-94-3				ACC.		10%MT
SD1-SFSA4-94-4				ACC.		10%MT

EXAMINED BY 主探 Fu Zhiqiang <i>Fu Zhiqiang</i>	REVIEWED BY 审核 <i>Wang Wei</i>
LEVEL - II SIGN 签名 / DATE日期 <i>2010.12.03</i>	LEVEL-II SIGN / DATE日期 <i>2010.12.03</i>
质量经理 / QCM <i>[Signature]</i>	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-11526		DATE日期 2010.12.03	PAGE OF页码 3/6	Revision No: 0
PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS		
DRAWING NO. 图号: SD1-SFSA4 FAÇADE		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 , 2010	
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 DA-400S	SERIAL NO. 连续编号 17371	
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	A709M-345T2 10/14/12mm	
WELDING PROCESS 焊接方法	SMAW FCAW	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			
SD1-SFSA4-94-5				ACC.		10%MT
SD1-SFSA4-94-6				ACC.		10%MT
SD1-SFSA4-94-7				ACC.		10%MT
SD1-SFSA4-94-8				ACC.		10%MT
SD1-SFSA4-94-9				ACC.		10%MT
SD1-SFSA4-94-10				ACC.		10%MT
SD1-SFSA4-94-11				ACC.		10%MT
SD1-SFSA4-94-12				ACC.		10%MT
SD1-SFSA4-94-13				ACC.		10%MT
SD1-SFSA4-94-14				ACC.		10%MT
SD1-SFSA4-84-1				ACC.		10%MT
SD1-SFSA4-84-2				ACC.		10%MT
SD1-SFSA4-84-3				ACC.		10%MT
SD1-SFSA4-84-4				ACC.		10%MT

EXAMINED BY主探 Fu Zhiqiang <i>Fu Zhiqiang</i>	REVIEWED BY 审核 <i>Wang Wei</i>
LEVEL - II SIGN 签名 / DATE日期 <i>20/10/2013</i>	LEVEL-II SIGN / DATE日期 <i>20/10/2013</i>
质量经理 / QCM <i>[Signature]</i>	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-11526		DATE日期 2010.12.03	PAGE OF页码 4/6	Revision No: 0
PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS		
DRAWING NO. 图号: SD1-SFSA4 FAÇADE		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 , 2010	
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 DA-400S	SERIAL NO. 连续编号 17371	
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	A709M-345T2 10/14/12mm	
WELDING PROCESS 焊接方法	SMAW FCAW	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			
SD1-SFSA4-84-5				ACC.		10%MT
SD1-SFSA4-84-6				ACC.		10%MT
SD1-SFSA4-84-7				ACC.		10%MT
SD1-SFSA4-84-8				ACC.		10%MT
SD1-SFSA4-84-9				ACC.		10%MT
SD1-SFSA4-84-10				ACC.		10%MT
SD1-SFSA4-500-1				ACC.		10%MT
SD1-SFSA4-500-2				ACC.		10%MT
SD1-SFSA4-500-3				ACC.		10%MT
SD1-SFSA4-500-4				ACC.		10%MT
SD1-SFSA4-500-5				ACC.		10%MT
SD1-SFSA4-500-6				ACC.		10%MT
SD1-SFSA4-500-7				ACC.		10%MT
SD1-SFSA4-500-8				ACC.		10%MT

EXAMINED BY主探 Fu Zhiqiang <i>Fu Zhiqiang</i>	REVIEWED BY 审核 <i>Wang Wei</i>
LEVEL - II SIGN 签名 / DATE日期 <i>2010.12.03</i>	LEVEL-II SIGN / DATE日期 <i>2010.12.03</i>
质量经理 / QCM <i>[Signature]</i>	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-11526 DATE日期 2010.12.03 PAGE OF页码 5/6 Revision No: 0

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

DRAWING NO. 图号: SD1-SFSA4 CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4
 FAÇADE

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. 28ST, 2010

EQUIPMENT 设备: MT YOKE MANUFACTURER 制造商: PARKER MODEL NO. 样式编号: DA-400S SERIAL NO. 连续编号: 17371

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: A709M-345T2
 CASTING 铸件 FORGING 锻造

WELDING PROCESS 焊接方法: SMAW FCAW 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			
SD1-SFSA4-500-9				ACC.		10%MT
SD1-SFSA4-500-10				ACC.		10%MT
SD1-SFSA4-500-11				ACC.		10%MT
SD1-SFSA4-500-12				ACC.		10%MT
SD1-SFSA4-500-13				ACC.		10%MT
SD1-SFSA4-500-14				ACC.		10%MT
SD1-SFSA4-81-1				ACC.		10%MT
SD1-SFSA4-81-2				ACC.		10%MT
SD1-SFSA4-81-3				ACC.		10%MT
SD1-SFSA4-81-4				ACC.		10%MT
SD1-SFSA4-81-5				ACC.		10%MT
SD1-SFSA4-81-6				ACC.		10%MT
SD1-SFSA4-81-7				ACC.		10%MT
SD1-SFSA4-81-8				ACC.		10%MT

EXAMINED BY 主探: Fu Zhiqiang *Fu Zhiqiang*

LEVEL - II SIGN 签名 / DATE日期: *20/12/03*

质量经理 / QCM: *[Signature]*

签字 SIGN / 日期 DATE

REVIEWED BY 审核: Wang Wei *Wang Wei*

LEVEL-II SIGN / DATE日期: *20/12/03*

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-MT-12395 DATE日期 2011.01.05 PAGE OF页码 1/1 Revision No: 0

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

DRAWING NO. 图号: ESD1-FFSA6-2 TOWER (E) LIFTING 6 SKIN F AND STIFFENER
 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. 28ST, 2011

EQUIPMENT 设备: MT YOKE MANUFACTURER 制造商: PARKER MODEL NO. 样式编号: DA-400S SERIAL NO. 连续编号: 17371

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 CASTING 铸件 FORGING 锻造
 Material & thickness 母材, 厚度: A709M-345T2 16/20mm

WELDING PROCESS 焊接方法: FCAW 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			
ESD1-FFSA6-2-1				ACC.		10%MT
ESD1-FFSA6-2-2				ACC.		10%MT
ESD1-FFSA6-2-3				ACC.		10%MT
ESD1-FFSA6-2-4				ACC.		10%MT
ESD1-FFSA6-2-5				ACC.		10%MT
ESD1-FFSA6-2-6				ACC.		10%MT
ESD1-FFSA6-2-7				ACC.		10%MT
ESD1-FFSA6-2-8				ACC.		10%MT
ESD1-FFSA6-2-9				ACC.		10%MT
ESD1-FFSA6-2-10				ACC.		10%MT
ESD1-FFSA6-2-25				ACC.		10%MT
ESD1-FFSA6-2-26				ACC.		10%MT
ESD1-FFSA6-2-27				ACC.		10%MT
ESD1-FFSA6-2-28				ACC.		10%MT

AFTER HSR1(T)-11634

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EXAMINED BY 主探: Di Kunlun *Di Kunlun* REVIEWED BY 审核: Wang Wei *Wang Wei*
 LEVEL - II SIGN 签名 / DATE日期: 2011.01.05 LEVEL-II SIGN / DATE日期: 2011.01.05
 质量经理 / QCM: *[Signature]* 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, P.R. China**Report No:** NCS-000894**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 15-Feb-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0884**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: 25-Nov-2010**Description of Non-Conformance:**

During Caltrans QA in process observations of the fabrication of ESD1-FFSA6-2, the QA discovered the following issue:

ZPMC welding personnel did not appear to be following the WELD PROCEDURE REQUIREMENTS FOR NEW WELDS (Rager/ McQuaid), i.e. Preheat shall be applied in such a manner to provide a minimum temperature in the area of the weld of 165 degree Celsius.

- The welds are identified as: ESD1-FFSA6-2-1, 2, 3, 4, 5, 6, 7, 8.
- The welding process used was SMAW
- The area was not preheated.
- The welds are Fillet Welds joining stiffener plates to skin plate
- The member is not SPCM
- ESD1-FFSA6-2 is located in Bay 11.

Contractor's proposal to correct the problem:

Contractor will provide the NDT report to prove the welds are acceptable.

Corrective action taken:

NDT report is provided by the Contractor. The report shows the welds are acceptable.

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 Wahbeh, Mazen 818-292-0659, who represents the Office of Structural Materials for your project.

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Inspected By: Ng,Michael

Quality Assurance Inspector

Reviewed By: Devey,Jim

QA Reviewer