**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, PRC **Report No:** NCR-000259
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV **Date:** 04-May-2009
**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0233

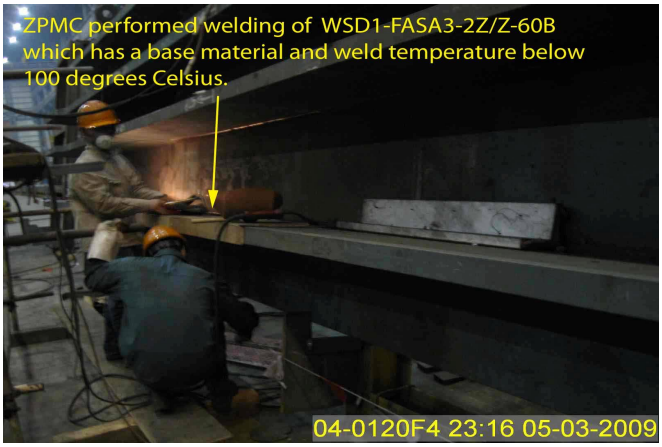
**Type of problem:**

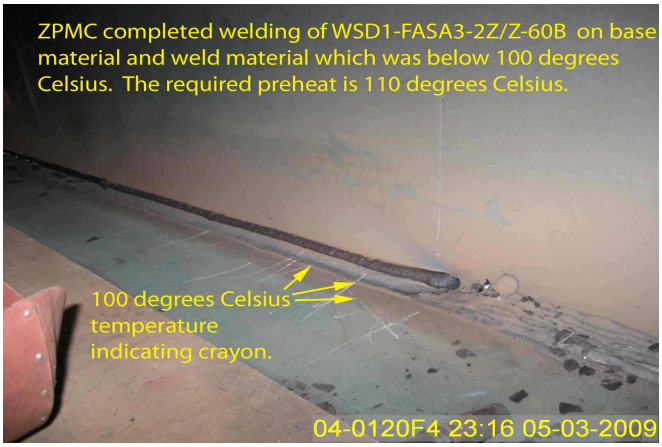
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Welding** | ☑ | **Concrete** | ☐ | **Other** | ☐ | | |
| **Welding** | ☐ | **Curing** | ☐ | **Procedural** | ☐ | **Bridge No:** | 34-0006 |
| **Joint fit-up** | ☐ | **Coating** | ☐ | **Other** | ☐ | **Component:** | West Tower, Lift 3, Skin A |
| **Procedural** | ☑ | **Procedural** | ☐ | **Description:** | West Tower, Lift 3, Skin A; Inadequate preheat | | |

**Reference Description:** West Tower, Lift 3, Skin A; Inadequate preheat on skin plate to longitudinal stiffener CJP welds

**Description of Non-Conformance:**

QA observed ZPMC personnel welding West Tower, Skin A, Lift 3 stiffener to skin plate (welds WSD1-FASA3-2Z/Z-35B, WSD1-FASA3-2Z/Z-60B and WSD1-FASA3-2Z/Z-6B) without the required base material preheat. The photograph below shows an un-melted 110 degree Celsius temperature indicating crayon adjacent to weld WSD1-FASA3-2Z/Z-60B.




**Applicable reference:**

Welding procedure WPS B-T-2231-TC-P5-F requires a minimum base material preheat temperature of 110 degrees Celsius.

**Who discovered the problem:** Paul Dawson
**Name of individual from Contractor notified:** Steve Lawton
**Time and method of notification:** E-mail; 5-4-2009, 9:00
**Name of Caltrans Engineer notified:** Scott Kennedy

# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

*( Continued Page 2 of 2 )*

**Time and method of notification:** Verbal; 5-4-2009, 9:00

**QC Inspector's Name:** Liv Lia Quan

**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<br>375 BURMA ROAD<br>OAKLAND CA 95607 | **Date:** | 04-May-2009 |
| | | **Contract No:** | 04-0120F4<br>04-SF-80-13.2 / 13.9 |
| **Dear:** | Mr. Charles Kanapicki | **Job Name:** | SAS Superstructure |
| **Attention:** | Mr. Thomas Nilsson Project/Fabrication Manager | **Document No:** | 05.03.06-000225 |
| **Subject:** | NCR No. ZPMC-0233 | | |

**Reference Description:** Preheat / Inadequate Preheat / West Shaft Lift 3 Skin A / Stiffener to Skin Plate 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:** Tower **Lift:** 03

**Remarks:**

QA observed ZPMC personnel welding West Tower, Skin A, Lift 3 stiffener to skin plate (welds WSD1-FASA3-2Z/Z-35B, WSD1-FASA3-2Z/Z-60B and WSD1-FASA3-2Z/Z-6B) without the required base material preheat.

**Action Required and/or Action Taken:**

Propose a resolution for the identified non-conformance that addresses the failure of Quality Control to identify the lack of preheat of the base material. Provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences.

Recent failures by Quality Control to identify Production's failure to perform the required preheating of the material have resulted in the issuance of NCR ZPMC-0202 and an additional Incident Report concerning lack of preheating on 03/28/09 (Tower).

**Transmitted by:** Scott Kennedy Sr. Bridge Engineer

**Attachments:** ZPMC-0233

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

**File:** 05.03.06

**AMERICAN BRIDGE/FLUOR ENTERPRISES, a JV**
P.O. BOX 23223 Oakland, CA 94623
Phone (510) 419-0120 / Fax (510) 839-0666

# NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary
Resident Engineer

**Ref:** 05.03.06-000225

**Subject:** NCR No. ZPMC-0233

**Dated:** **20-May-2009**

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

**Job Name:** SAS Superstructure

**Document No.:** **ABF-NPR-000229 Rev: 00**

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**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC has been informed to maintained the pre-heat and interpass temperatures in accordance with WPS requirements. ZPMC will provide all inspection documents for the Weld Joint at a later date.

ZPMC has been informed to maintained the pre-heat and interpass temperatures in accordance with WPS requirements. ZPMC will provide all inspection documents for the Weld Joint at a later date.

**Submitted by:**

**Attachment(s):** ABF-NPR-000229R00

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**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-0233 at that time.

**Submitted by:** Wright, Doug

**Date:** 26-May-2009

**Attachment(s):**

**AMERICAN BRIDGE/FLUOR ENTERPRISES, a JV**
P.O. BOX 23223 Oakland, CA 94623
Phone (510) 419-0120 / Fax (510) 839-0666

# NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary
Resident Engineer

**Ref:** 05.03.06-000225

**Subject:** NCR No. ZPMC-0233

**Dated:** **04-Mar-2010**

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

**Job Name:** SAS Superstructure

**Document No.:** **ABF-NPR-000229 Rev: 01**

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**Contractor's Proposed Resolution:**

**Reference Resolution:** The weld joints referenced in the NCR do not exist, based on the description in the NCR ZPMC is providing the NDT documentation of the actual weld joints depicted in the NCR.

The weld joints referenced in the NCR do not exist, based on the description in the NCR ZPMC is providing the NDT documentation of the actual weld joints depicted in the NCR. ZPMC and ABF JV have since conducted internal training with ZPMC inspectors to ensure that they are more aware to ensure that proper preheat is achieved prior to welding. Based on this ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000229R01;

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**Caltrans' comments:**

**Status:** CLO

**Date:** 04-Mar-2010

The proposed resolution is acceptable. The Department concurs that Non-conformance ZPMC-0233 is closed.

**Submitted by:** Lee, Ken

**Date:** 05-Mar-2010

**Attachment(s):**

No. T-131

# LETTER OF RESPONSE

**TO: American Bridge/Flour JV**

**DATE: 2010-3-4**

**REGARDING: NCR-000259(ZPMC-0233)**

**ZPMC recently received NCR-000259(ZPMC-0233), it mentioned that CT inspector discovered ZPMC personnel welding west tower skin A , lift 3 stiffener to skin plate (welds WSD1-FASA3-2Z/Z-35B, WSD1-FASA3-2Z/Z-60B and WSD1-FASA3-2Z/Z-6B) without the required base material preheat.**

**After ZPMC checked, these Welds No. do not exist. According to the NCR description, the west tower skin A stiffener welds No. shall be WSD1-FASA3-2E/E-35B, WSD1-FASA3-2E/E-60B and WSD1-FASA3-2E/E-6. WSD1-FASA3-2E/E-6 is a PJP weld, so only the MT report is prepared.**

**ZPMC hope CT can take a review and close this NCR basing on the attached documentation and ABF-NPR-000229.**

**ATTACHMENT:**

**NCR-000259 (ZPMC-0233)**

**T787-MT-4154**

**T787-MT-4153**

**T787-UT-1705**

**T787-MT-1721**

2010-3-4

**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<br>375 BURMA ROAD<br>OAKLAND CA 95607 | **Date:** | 04-May-2009 |
| | | **Contract No:** | 04-0120F4<br>04-SF-80-13.2 / 13.9 |
| **Dear:** | Mr. Charles Kanapicki | **Job Name:** | SAS Superstructure |
| **Attention:** | Mr. Thomas Nilsson Project/Fabrication Manager | **Document No:** | 05.03.06-000225 |
| **Subject:** | NCR No. ZPMC-0233 | | |

**Reference Description:** Preheat / Inadequate Preheat / West Shaft Lift 3 Skin A / Stiffener to Skin Plate 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:

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- ☐ Non-Conformance Resolved.

**Material Location:** Tower **Lift:** 03

**Remarks:**

QA observed ZPMC personnel welding West Tower, Skin A, Lift 3 stiffener to skin plate (welds WSD1-FASA3-2Z/Z-35B, WSD1-FASA3-2Z/Z-60B and WSD1-FASA3-2Z/Z-6B) without the required base material preheat.

**Action Required and/or Action Taken:**

Propose a resolution for the identified non-conformance that addresses the failure of Quality Control to identify the lack of preheat of the base material. Provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences.

Recent failures by Quality Control to identify Production's failure to perform the required preheating of the material have resulted in the issuance of NCR ZPMC-0202 and an additional Incident Report concerning lack of preheating on 03/28/09 (Tower).

**Transmitted by:** Scott Kennedy Sr. Bridge Engineer
**Attachments:** ZPMC-0233

**cc:** Rick Morrow, Gary Pursell, Mark Woods, Jason Tom
**File:** 05.03.06

02.02:15.04 *05.03.06-000225,NCT*

Received
NCT-000225 04 May 09

**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, PRC **Report No:** NCR-000259
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV **Date:** 04-May-2009
**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0233

**Type of problem:**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Welding** | ☑ | **Concrete** | ☐ | **Other** | ☐ | |
| **Welding** | ☐ | **Curing** | ☐ | **Procedural** | ☐ | **Bridge No:** 34-0006 |
| **Joint fit-up** | ☐ | **Coating** | ☐ | **Other** | ☐ | **Component:** West Tower, Lift 3, Skin A |
| **Procedural** | ☑ | **Procedural** | ☐ | **Description:** West Tower, Lift 3, Skin A; Inadequate preheat | | |

**Reference Description:** West Tower, Lift 3, Skin A; Inadequate preheat on skin plate to longitudinal stiffener CJP welds

**Description of Non-Conformance:**

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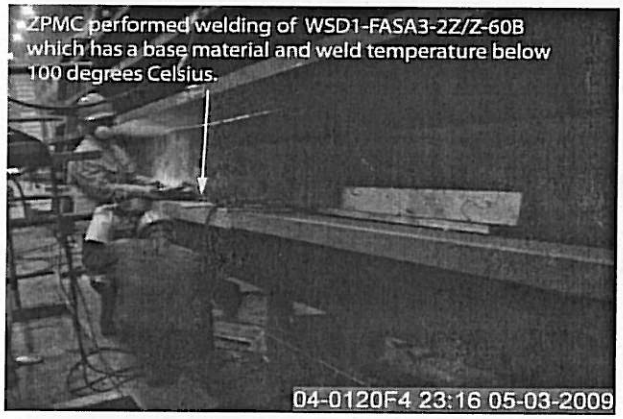


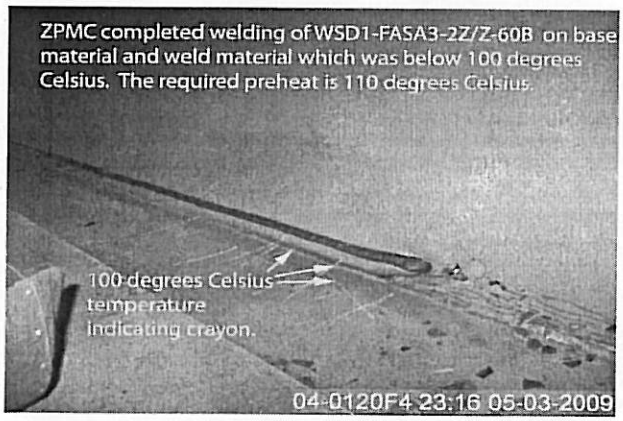


**Applicable reference:**

Welding procedure WPS B-T-2231-TC-P5-F requires a minimum base material preheat temperature of 110 degrees Celsius.

**Who discovered the problem:** Paul Dawson
**Name of individual from Contractor notified:** Steve Lawton
**Time and method of notification:** E-mail; 5-4-2009, 9:00
**Name of Caltrans Engineer notified:** Scott Kennedy

# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

*( Continued Page 2 of 2 )*

**Time and method of notification:** Verbal; 5-4-2009, 9:00

**QC Inspector's Name:** Liv Lia Quan

**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 |

# REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

| | | | |
|---|---|---|---|
| REPORT NO. 报告编号 T787-MT-4154 | DATE日期 2009.05.21 | PAGE OF页码 1/3 | Revision No: 0 |

| | | | |
|---|---|---|---|
| PROJECT NO. 工程编号: | ZP06-787 | CONTRACTOR: 用 户: | CALTRANS |
| DRAWING NO. 图号: | WSD1-FASA3-2E/E<br>TOWER(W) THIRD LIFTING SKIN A1 | CALTRANS CONTRACT NO.: 加州工程编号 | 04-0120F4 |
| REFERENCING CODE 参考规范编码 | ACCEPTANCE STANDARD 接受标准 | PROCEDURE NO. 程序编号 | CALIBRATION DUE DATE 仪器校正有效期 |
| AWS D1.5-2002 | AWS D1.5-2002 | ZPQC-MT-01 | Dec. 28ST ,2009 |
| 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 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<br>☐ CASTING 铸件<br>☐ FORGING 锻造 | Material & thickness 母材,厚度 | A709M-345T2-Z<br>90/75mm |
| 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-FASA3-2E/E-2 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-3 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-5 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-6 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-10 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-11 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-14 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-15 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-18 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-19 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-21 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-22 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-26 | | | | ACC. | | 100%MT |

| | |
|---|---|
| EXAMINED BY主探<br>Zhou Dongyun Zhou Dongyun<br>LEVEL - II SIGN 签名 / DATE日期 09.05.21 | REVIEWED BY 审核<br>Cai Xinxin<br>LEVEL-II SIGN / DATE日期 09.05.21 |
| 质量经理 / QCM<br>Wu Jianhua 09.5.21<br>签字 SIGN / 日期 DATE | 用户CUSTOMER<br><br>签字 SIGN / 日期 DATE |

(FORM# ZPQC-MT01)

# REPORT OF MAGNETIC PARTICLE EXAMINATION

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| REPORT NO. 报告编号 T787-MT-4154 | DATE日期 2009.05.21 | PAGE OF页码 2/3 | Revision No: 0 |

| | | | |
|---|---|---|---|
| PROJECT NO. 工程编号: | ZP06-787 | CONTRACTOR: 用 户: | CALTRANS |
| DRAWING NO. 图号: | WSD1-FASA3-2E/E TOWER(W) THIRD LIFTING SKIN A1 | CALTRANS CONTRACT NO.: 加州工程编号 | 04-0120F4 |
| REFERENCING CODE 参考规范编码 | AWS D1.5-2002 | PROCEDURE NO. 程序编号 | ZPQC-MT-01 |
| ACCEPTANCE STANDARD 接受标准 | AWS D1.5-2002 | CALIBRATION DUE DATE 仪器校正有效期 | Dec. 28ST ,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<br>☐ CASTING 铸件<br>☐ FORGING 锻造 | Material & thickness 母材,厚度 | A709M-345T2-Z 90/75mm |
| 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 INDICATION 指示 | TYPE 类型 | LENGTH IN mm 长度 | ACCEPT 接受 | REJECT 拒收 | REMARKS 备注 |
|---|---|---|---|---|---|---|
| WSD1-FASA3-2E/E-27 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-30 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-31 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-33 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-34 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-36 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-37 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-41 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-42 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-45 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-46 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-49 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-50 | | | | ACC. | | 100%MT |

| | |
|---|---|
| EXAMINED BY主探<br>Zhou Dongyun Zhou Dong yun<br>LEVEL - II SIGN 签名 / DATE日期 09.05.21 | REVIEWED BY 审核<br>Cai xin xin<br>LEVEL-II SIGN / DATE日期 09.05.21 |
| 质量经理 / QCM<br>Wanhua 09.5.21<br>签字 SIGN / 日期 DATE | 用户CUSTOMER<br>签字 SIGN / 日期 DATE |

(FORM# ZPQC-MT01)

# REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

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| DRAWING NO. 图号: | WSD1-FASA3-2E/E TOWER(W) THIRD LIFTING SKIN A1 | CALTRANS CONTRACT NO.: 加州工程编号 | 04-0120F4 |
| REFERENCING CODE 参考规范编码 | AWS D1.5-2002 | PROCEDURE NO. 程序编号 | ZPQC-MT-01 |
| ACCEPTANCE STANDARD 接受标准 | AWS D1.5-2002 | CALIBRATION DUE DATE 仪器校正有效期 | Dec. 28ST ,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<br>☐ CASTING 铸件<br>☐ FORGING 锻造 | Material & thickness 母材,厚度 | A709M-345T2-Z<br>90/75mm |
| 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 INDICATION 指示 | TYPE 类型 | LENGTH IN mm 长度 | ACCEPT 接受 | REJECT 拒收 | REMARKS 备注 |
|---|---|---|---|---|---|---|
| WSD1-FASA3-2E/E-52 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-53 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-57 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-58 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-61 | | | | ACC. | | 100%MT |
| WSD1-FASA3-2E/E-62 | | | | ACC. | | 100%MT |
| AFTER HSR1(T)-8414、8415 | | | | | | |
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|---|---|
| EXAMINED BY主探<br>Zhou Dongyun Zhou Dongyun<br>LEVEL - II SIGN 签名 / DATE日期 09.05.21 | REVIEWED BY 审核<br>Cai Xinxin<br>LEVEL-II SIGN / DATE日期 09.05.21 |
| 质量经理 / QCM<br>W Zhanhua 09.5.21<br>签字 SIGN / 日期 DATE | 用户CUSTOMER<br>签字 SIGN / 日期 DATE |

(FORM# ZPQC-MT01)

# REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

| | | | |
|---|---|---|---|
| REPORT NO. 报告编号 T787-MT-4153 | DATE日期 2009.05.21 | PAGE OF页码 1/4 | Revision No: 0 |

| | | | |
|---|---|---|---|
| PROJECT NO.<br>工程编号: | ZP06-787 | CONTRACTOR:<br>用 户: | CALTRANS |
| DRAWING NO.<br>图号: | WSD1-FASA3-2E/E<br>TOWER(W) THIRD LIFTING LONGITUDINAL | CALTRANS CONTRACT NO.:<br>加州工程编号 | 04-0120F4 |
| REFERENCING CODE<br>参考规范编码<br>AWS D1.5-2002 | ACCEPTANCE STANDARD<br>接受标准<br>AWS D1.5-2002 | PROCEDURE NO.<br>程序编号<br>ZPQC-MT-01 | CALIBRATION DUE DATE<br>仪器校正有效期<br>Dec. 28ST ,2009 |
| EQUIPMENT 设备<br>MT YOKE | MANUFACTURER 制造商<br>PARKER | MODEL NO. 样式编号<br>B310S | SERIAL NO. 连续编号<br>5620 5395 5617 |
| MAGNETIZING METHOD<br>磁化方法 | Continuous magnetic yoke<br>磁轭式连续法 | CURRENT<br>电流 | AC |
| PARTICLE TYPE<br>磁粉类型 | Dry magnet powder<br>干磁粉 | YOKE SPACING<br>磁轭间距 | 70～150mm |
| MATERIAL TO BE EXAMINED<br>检测材料 | √ WELDING 焊接件<br>☐ CASTING 铸件<br>☐ FORGING 锻造 | Material & thickness<br>母材,厚度 | A709M-345T2-Z<br>90/75mm |
| WELDING PROCESS<br>焊接方法 | FCAW | TYPE OF JOINT<br>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-FASA3-2E/E-1A | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-1B | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-17A | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-17B | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-32A | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-32B | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-48A | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-48B | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-4A | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-4B | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-20A | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-20B | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-35A | | | | ACC. | | 25%MT |

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|---|---|
| EXAMINED BY主探<br>Zhou Dongyun Zhou Dongyun<br>LEVEL - II SIGN 签名 / DATE日期 09.05.21 | REVIEWED BY 审核<br>Cai Xinxin<br>LEVEL-II SIGN / DATE日期 09.05.21 |
| 质量经理 / QCM<br>W Zhanhua 09.5.21<br>签字 SIGN / 日期 DATE | 用户CUSTOMER<br>签字 SIGN / 日期 DATE |

(FORM# ZPQC-MT01)

# REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

| | | | |
|---|---|---|---|
| REPORT NO. 报告编号 T787-MT-4153 | DATE日期 2009.05.21 | PAGE OF页码 2/4 | Revision No: 0 |

| | | | |
|---|---|---|---|
| PROJECT NO. 工程编号: | ZP06-787 | CONTRACTOR: 用 户: | CALTRANS |
| DRAWING NO. 图号: | WSD1-FASA3-2E/E TOWER(W) THIRD LIFTING LONGITUDINAL | CALTRANS CONTRACT NO.: 加州工程编号 | 04-0120F4 |
| REFERENCING CODE 参考规范编码 | ACCEPTANCE STANDARD 接受标准 | PROCEDURE NO. 程序编号 | CALIBRATION DUE DATE 仪器校正有效期 |
| AWS D1.5-2002 | AWS D1.5-2002 | ZPQC-MT-01 | Dec. 28ST ,2009 |
| 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 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<br>☐ CASTING 铸件<br>☐ FORGING 锻造 | Material & thickness 母材,厚度 | A709M-345T2-Z<br>90/75mm |
| 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 INDICATION 指示 | TYPE 类型 | LENGTH IN mm 长度 | ACCEPT 接受 | REJECT 拒收 | REMARKS 备注 |
|---|---|---|---|---|---|---|
| WSD1-FASA3-2E/E-35B | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-44A | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-44B | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-60A | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-60B | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-16A | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-16B | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-64A | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-64B | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-47A | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-47B | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-63A | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-63B | | | | ACC. | | 25%MT |

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|---|---|
| EXAMINED BY主探<br>Zhou Dongyun Zhou Dongyun<br>LEVEL - II SIGN 签名 / DATE日期 09.05.21 | REVIEWED BY 审核<br>Cai Xinxin<br>LEVEL-II SIGN / DATE日期 09.05.21 |
| 质量经理 / QCM<br>Wanhua 09.5.21<br>签字 SIGN / 日期 DATE | 用户CUSTOMER<br>签字 SIGN / 日期 DATE |

(FORM# ZPQC-MT01)

# REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

| | | | |
|---|---|---|---|
| REPORT NO. 报告编号 T787-MT-4153 | DATE日期 2009.05.21 | PAGE OF页码 3/4 | Revision No: 0 |

| | | | |
|---|---|---|---|
| PROJECT NO. 工程编号: | ZP06-787 | CONTRACTOR: 用 户: | CALTRANS |
| DRAWING NO. 图号: | WSD1-FASA3-2E/E TOWER(W) THIRD LIFTING LONGITUDINAL | CALTRANS CONTRACT NO.: 加州工程编号 | 04-0120F4 |
| REFERENCING CODE 参考规范编码 | ACCEPTANCE STANDARD 接受标准 | PROCEDURE NO. 程序编号 | CALIBRATION DUE DATE 仪器校正有效期 |
| AWS D1.5-2002 | AWS D1.5-2002 | ZPQC-MT-01 | Dec. 28ST ,2009 |
| 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 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<br>☐ CASTING 铸件<br>☐ FORGING 锻造 | Material & thickness 母材,厚度 | A709M-345T2-Z<br>90/75mm |
| 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-FASA3-2E/E-51A | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-51B | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-25A | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-25B | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-9A | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-9B | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-56A | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-56B | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-40A | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-40B | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-13A | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-13B | | | | ACC. | | 25%MT |
| WSD1-FASA3-2E/E-29A | | | | ACC. | | 25%MT |

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| EXAMINED BY主探<br>Zhou Dongyun Zhou Dongyun<br>LEVEL - II SIGN 签名 / DATE日期 09.05.21 | REVIEWED BY 审核<br>Cai Xinxin<br>LEVEL-II SIGN / DATE日期 09.05.21 |
| 质量经理 / QCM<br>09.5.21<br>签字 SIGN / 日期 DATE | 用户CUSTOMER<br>签字 SIGN / 日期 DATE |

(FORM# ZPQC-MT01)

# REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

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|---|---|---|---|
| REPORT NO. 报告编号 T787-MT-4153 | DATE日期 2009.05.21 | PAGE OF页码 4/4 | Revision No: 0 |

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|---|---|---|---|
| PROJECT NO. 工程编号: | ZP06-787 | CONTRACTOR: 用 户: | CALTRANS |
| DRAWING NO. 图号: | WSD1-FASA3-2E/E TOWER(W) THIRD LIFTING LONGITUDINAL | CALTRANS CONTRACT NO.: 加州工程编号 | 04-0120F4 |
| REFERENCING CODE 参考规范编码 | AWS D1.5-2002 | PROCEDURE NO. 程序编号 | ZPQC-MT-01 |
| ACCEPTANCE STANDARD 接受标准 | AWS D1.5-2002 | CALIBRATION DUE DATE 仪器校正有效期 | Dec. 28ST ,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<br>☐ CASTING 铸件<br>☐ FORGING 锻造 | Material & thickness 母材,厚度 | A709M-345T2-Z<br>90/75mm |
| 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 INDICATION 指示 | TYPE 类型 | LENGTH IN mm 长度 | ACCEPT 接受 | REJECT 拒收 | REMARKS 备注 |
|---|---|---|---|---|---|---|
| WSD1-FASA3-2E/E-29B | | | | ACC. | | 25%MT |
| BLANK | | | | | | |
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| EXAMINED BY主探<br>Zhou Dongyun Zhou Dongyun<br>LEVEL - II SIGN 签名 / DATE日期 09.05.21 | REVIEWED BY 审核<br>Cai Xinxin<br>LEVEL-II SIGN / DATE日期 09.05.21 |
| 质量经理 / QCM<br>Wu Jianhua 09.5.21<br>签字 SIGN / 日期 DATE | 用户CUSTOMER<br>签字 SIGN / 日期 DATE |

(FORM# ZPQC-MT01)

# REPORT OF ULTRASONIC EXAMINATION
# UT探伤报告

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|---|---|---|---|---|
| REPORT NO. 报告编号 T787-UT-1721 | DATE 2009.05.12 | PAGE 1 OF 3 | | Revision No: 0 |

| | | |
|---|---|---|
| PROJECT NO. :工程编号 ZP06-787 | | CONTRACTOR : CALTRANS |
| ITEMS NAME: 部件名称 THIRD LIFTING TOWER(W) STIFFENER | DRAWING NO.: 图号 WSD1-FASA3-2E/E | CALTRANS CONTRACT NO.: 04-0120F4 加州工程编号 |
| REFERENCING CODE 参考规范<br>AWS D1.5-2002 | ACCEPTANCE STANDARD 接受标准<br>AWS D1.5-2002(Table 6.4) | PROCEDURE NO. 程序编号<br>ZPQC-UT-01 |
| WELDING PROCESS 焊接方法<br>FCAW | JOINT TYPE 焊缝类型<br>T-JOINT | CALIBRATION DUE DATE 仪器校正有效期<br>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<br>AWS IIW BLOCK TYPE II | COUPLANT 耦合剂<br>C.M.C | MATERIAL/THICKNESS 材料厚度<br>A709M-345T2-Z 90/75mm | |

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 Indication Level a | Reference Level b | Attenuation Factor c | Indication Rating d | DISCONTINUITY 不连续性 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 | Discontinuity Evaluation 缺陷估计 | Remark 备注 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WSD1-FASA3-2E/E-1A/B | 1 | 70 | A | 1 | 31 | 32 | 4 | -5 | 200 | 74 | 25-32 | 0 | 0 | REJ. | 100% |
| | 2 | 45 | C | 1 | 32 | 32 | 8 | -8 | 240 | 124 | 87 | +3 | 0 | REJ. | FROM A20 |
| | 3 | 45 | C | 1 | 40 | 32 | 9 | -1 | 30 | 134 | 95 | -5 | 440 | REJ. | FROM A50 |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| WSD1-FASA3-2E/E-17A/B | | 70 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 45 | | | | 32 | | | | | | | | ACC. | 100% |

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| EXAMINED BY主探<br>Dai Gengsheng<br>LEVEL - II SIGN / DATE 09.05.07 | REVIEWED BY 审核<br>Tang Lingshan<br>LEVEL - II SIGN / DATE 09.05.07 |
| 质量经理 / QCM<br>Wu Zhanhua 09.5.7<br>签字 SIGN / 日期 DATE | 用户CUSTOMER<br>签字 SIGN / 日期 DATE |

(FORM# ZPQC-UT01)

# REPORT OF ULTRASONIC EXAMINATION
# UT探伤报告

REPORT NO. 报告编号 T787-UT-1721 DATE 2009.05.12 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 | 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 | | |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| WSD1-FASA3-2E/E-32A/B | | 70 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 45 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| WSD1-FASA3-2E/E-48A/B | | 70 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 45 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| WSD1-FASA3-2E/E-4A/B | | 70 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 45 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| WSD1-FASA3-2E/E-20A/B | | 70 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 45 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| WSD1-FASA3-2E/E-35A/B | | 70 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 45 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| WSD1-FASA3-2E/E-51A/B | | 70 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 45 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| WSD1-FASA3-2E/E-25A/B | | 70 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 45 | | | | 32 | | | | | | | | ACC. | 100% |

EXAMINED BY主探
Dai Gengsheng
LEVEL - II SIGN / DATE 09.05.07

REVIEWED BY 审核
Tang Xingshan
LEVEL - II SIGN / DATE 09.05.07

质量经理 / QCM
Lu Zhanhua 09.5.7
签字 SIGN / 日期 DATE

用户CUSTOMER
签字 SIGN / 日期 DATE

(FORM# ZPQC-UT01)

# REPORT OF ULTRASONIC EXAMINATION
# UT探伤报告

REPORT NO. 报告编号 T787-UT-1721 DATE 2009.05.12 PAGE 3 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 | 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 | | |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| WSD1-FASA3-2E/E-9A/B | | 70 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 45 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| WSD1-FASA3-2E/E-56A/B | | 70 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 45 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| WSD1-FASA3-2E/E-40A/B | | 70 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 45 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| WSD1-FASA3-2E/E-13A/B | | 70 | | | | 32 | | | | | | | | ACC. | 100% |
| | 1 | 45 | B | 1 | 36 | 32 | 5 | -1 | 50 | 88 | 62 | -10 | 1240 | REJ. | 100% |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| WSD1-FASA3-2E/E-29A/B | | 70 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 45 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| AFTER HSR1(T)8414, 8415 | | | | | | | | | | | | | | | |
| BLANK | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

EXAMINED BY主探
Dai Gengsheng
LEVEL - II SIGN / DATE 09.05.07

REVIEWED BY 审核
Tang Xingshan
LEVEL - II SIGN / DATE 09.05.07

质量经理 / QCM
Wu Tianhua 09.5.7
签字 SIGN / 日期 DATE

用户CUSTOMER
签字 SIGN / 日期 DATE

(FORM# ZPQC-UT01)

# REPORT OF ULTRASONIC EXAMINATION
# UT探伤报告

| | | | | | |
|---|---|---|---|---|---|
| REPORT NO. 报告编号 | T787-UT-1705 | DATE | 2009.05.07 | PAGE 1 OF 2 | Revision No: 0 |

| | | | |
|---|---|---|---|
| PROJECT NO. :工程编号 ZP06-787 | | | CONTRACTOR : CALTRANS |
| ITEMS NAME: 部件名称 | THIRD LIFTING TOWER(W) STIFFENER | DRAWING NO.: 图号 | WSD1-FASA3-2E/E |
| CALTRANS CONTRACT NO.: 04-0120F4 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 6.4) | 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 | 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 IIW BLOCK TYPE II | C.M.C | A709M-345T2-Z 90/75mm | |

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 Indication Level a | Reference Level b | Attenuation Factor c | Indication Rating d | DISCONTINUITY 不连续性 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 | Discontinuity Evaluation 缺陷估计 | Remark 备注 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WSD1-FASA3-2E/E-44A/B | 1 | 70 | B | 1 | 32 | 32 | 6 | -6 | 40 | 99 | 32 | -15 | 1560 | REJ. | 100% |
| | | 45 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| WSD1-FASA3-2E/E-60A/B | | 70 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 45 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |

| | |
|---|---|
| EXAMINED BY主探<br>Dai Gengsheng<br>LEVEL - II SIGN / DATE 09.05.07 | REVIEWED BY 审核<br>Tang Xingshan<br>LEVEL - II SIGN / DATE 09.5.07 |
| 质量经理 / QCM<br>W Tianhua 09.5.7<br>签字 SIGN / 日期 DATE | 用户CUSTOMER<br><br>签字 SIGN / 日期 DATE |

(FORM# ZPQC-UT01)

# REPORT OF ULTRASONIC EXAMINATION
# UT探伤报告

REPORT NO. 报告编号 T787-UT-1705 DATE 2009.05.07 PAGE 2 OF 2 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 | 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 | | |
| WSD1-FASA3-2E/E-16A/B | | 70 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 45 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| WSD1-FASA3-2E/E-64A/B | | 70 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 45 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| WSD1-FASA3-2E/E-47A/B | | 70 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 45 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| WSD1-FASA3-2E/E-63A/B | | 70 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 45 | | | | 32 | | | | | | | | ACC. | 100% |
| | | 0 | C | | | 32 | | | | | | | | ACC. | 100% |
| BLANK | | | | | | | | | | | | | | | |

EXAMINED BY主探
Pan Geng cheng
LEVEL - II SIGN / DATE 09.05.07

REVIEWED BY 审核
Tang xingshan
LEVEL - II SIGN / DATE 09.05.07

质量经理 / QCM
Wu Jianhua 09.5.7
签字 SIGN / 日期 DATE

用户CUSTOMER
签字 SIGN / 日期 DATE

(FORM# ZPQC-UT01)

**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 #: xx.25A

# QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

**Location:** Changxing Island, Shanghai, PRC **Report No:** NCS-000336
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV **Date:** 23-Nov-2009
**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0233

**Type of problem:**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Welding** | ☑ | **Concrete** | ☐ | **Other** | ☐ | |
| **Welding** | ☐ | **Curing** | ☐ | **Procedural** | ☐ | **Bridge No:** 34-0006 |
| **Joint fit-up** | ☐ | **Coating** | ☐ | **Other** | ☐ | **Component:** |
| **Procedural** | ☑ | **Procedural** | ☐ | **Descripton:** | | |

**Date the Non-Conformance Report was written:** 04-May-2009

**Description of Non-Conformance:**
QA observed ZPMC personnel welding West Tower, Skin A, Lift 3 stiffener to skin plate welds WSD1-FASA3-2Z/Z-6B, 35B, & 60B without the required base material pre-heat.

**Contractor's proposal to correct the problem:**
Inform ZPMC to maintain the pre-heat and interpass temperatures in accordance with WPS requirements.

**Corrective action taken:**
ZPMC has been informed to maintain the pre-heat and interpass temperatures in accordance with WPS requirements. The affected welds have been verified by QA and 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 |