

**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-000578  
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV **Date:** 01-Jan-2010  
**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0551

**Type of problem:**

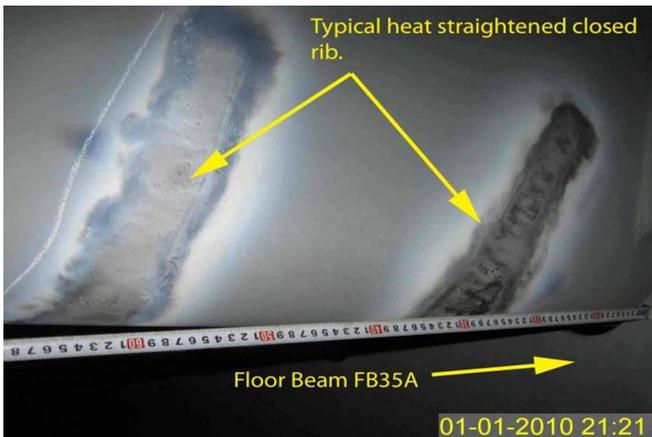
<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b> Segment 6CW Closed Rib
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b> Work deviated from the approved procedure	

**Reference Description:** The performed heat straightening in 6CW closed rib was deviated from the approved HSR procedure

**Description of Non-Conformance:**

During the Quality Assurance in-process inspection of Closed Ribs being Heat Straightened at OBG segment 6CW, this Quality Assurance Inspector (QA) discovered the following issues:

- Deck Plates (DP) identified as: DP515A and DP275A are located inside segment 6CW.
- Heat Straightening (HS) was performed at two locations on each rib, one at approximately 160mm and the second at 620mm as measured from Floor Beam FB35A located at PP44 (as measured toward PP43).
- A total of seven (7) Closed Ribs were heat straightened. This is a deviation from the approved HSR document of heating the 3 closed ribs at the specified locations.
- Three (3) Closed Ribs were HS on DP515A and four (4) on DP275A.
- ZPMC QC or CWI were not present during the time of the HS process.
- Orthotropic Box Girder (OBG) segment 6CW is located in the Trial Assembly area.



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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Applicable reference:**

Approved Heat Straightening Report HSR(B)-340 Rev 1; “the approved procedure has approved Heat Straightening for 3 Closed Ribs at the specified locations.”

AWS D1.5/2002 Section 3.7.3; Members distorted by welding shall be heat straightened by mechanical means or by carefully supervised application of a limited amount of localized heat as approved by the engineer.

**Who discovered the problem:** Paul Dawson

**Name of individual from Contractor notified:** Li Jingbo

**Time and method of notification:** 2000 hours, 01-01-2010, Verbal

**Name of Caltrans Engineer notified:** Bill Howe

**Time and method of notification:** 2300 hours, 01-02-2010, Email

**QC Inspector's Name:** Li Wang

**Was QC Inspector aware of the problem:** Yes No

**Contractor's proposal to correct the problem:**

N/A

**Comments:**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Tsang, Eric	SMR
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<b>Reviewed By:</b>	Wahbeh, Mazen	SMR
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## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000541

**Subject:** NCR No. ZPMC-0551

**Dated:** 11-Jan-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000460 Rev: 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** ABF QCM has discussed with ZPMC QA/QC that the CWI must be present during all heat straightening, if present, this misunderstanding could have been avoided as well as this NCR.

This NCR states the HSR specifies (3) closed ribs to be heat straightened while in fact 7 ribs were observed as showing heat marks. However, contrary to the NCR, the HSR is intended to mean 3 deck panels as shown in below the sketch of deck panels. A misunderstanding in nomenclature. In this case ZPMC was following the HSR. ABF QCM has discussed with ZPMC QA/QC that the CWI must be present during all heat straightening, if present, this misunderstanding could have been avoided as well as this NCR. ZPMC request closure of this NCR.

**Submitted by:** Lawton, Steve

**Attachment(s):** ABF-NPR-000460R00;

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### Caltrans' comments:

**Status:** REJ

**Date:** 11-Jan-2010

Submit a revised HSR that shows what was actually done.

**Submitted by:** Howe, Bill

**Date:** 11-Jan-2010

**Attachment(s):**



No. B-551

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-1-6**

**REGARDING: NCR-000578(ZPMC-0551)**

With this letter of response, ZPMC requests closure of CT **NCR-000578(ZPMC-0551)**, we don't agree what describe in the non-conformance report, the main opinion in the report that the performed heat straightening in the 6CW closed rib was deviated from the approved HSR procedure, but rechecking the HSR we found there are visible remark below the draft drawing that heat straightening should be three deck panel but not three U-rib, and the approved note as 'H.S total of 3 U-ribs in this manner' are not consist with real situation on fabrication site, by the way it's also no possible to got the successful of adjusting the misalign of the splice plate joint. Since all of the heat straightening U-rib are included in the three panel DP113/DP275/DP515, we think the performance should be have followed the require of the heat straightening report.

So base on the above clarification that we apply to closure the **NCR-000578(ZPMC-0551)**.

**ATTACHMENT:**

**NCR-000578(ZPMC-0551)**

The approved heat straightening report

*Zhao Shuang Bao*

*2010. 1. 6*

**DEPARTMENT OF TRANSPORTATION**  
 DIVISION OF ENGINEERING SERVICES  
 Office of Structural Materials  
 Quality Assurance and Source Inspection



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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-000578  
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV **Date:** 01-Jan-2010  
**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0551

**Type of problem:**

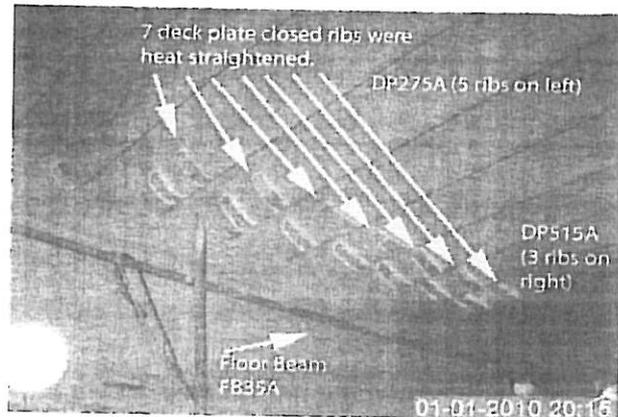
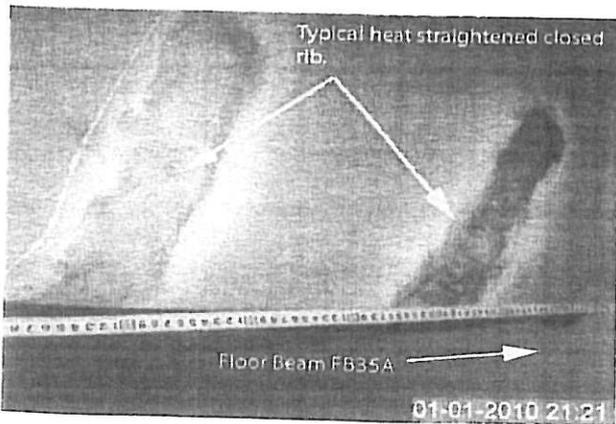
- Welding  Concrete  Other
- Welding  Curing  Procedural  **Bridge No:** 34-0006
- Joint fit-up  Coating  Other  **Component:** Segment 6CW Closed Rib
- Procedural  Procedural  **Description:** Work deviated from the approved procedure

**Reference Description:** The performed heat straightening in 6CW closed rib was deviated from the approved HSR procedure

**Description of Non-Conformance:**

During the Quality Assurance in-process inspection of Closed Ribs being Heat Straightened at OBG segment 6CW, this Quality Assurance Inspector (QA) discovered the following issues:

- Deck Plates (DP) identified as: DP515A and DP275A are located inside segment 6CW.
- Heat Straightening (HS) was performed at two locations on each rib, one at approximately 160mm and the second at 620mm as measured from Floor Beam FB35A located at PP44 (as measured toward PP43).
- A total of seven (7) Closed Ribs were heat straightened. This is a deviation from the approved HSR document of heating the 3 closed ribs at the specified locations.
- Three (3) Closed Ribs were HS on DP515A and four (4) on DP275A.
- ZPMC QC or CWI were not present during the time of the HS process.
- Orthotropic Box Girder (OBG) segment 6CW is located in the Trial Assembly area.



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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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( Continued Page 2 of 2 )

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**Applicable reference:**

Approved Heat Straightening Report HSR(B)-340 Rev 1; "the approved procedure has approved Heat Straightening for 3 Closed Ribs at the specified locations."

AWS D1.5/2002 Section 3.7.3; Members distorted by welding shall be heat straightened by mechanical means or by carefully supervised application of a limited amount of localized heat as approved by the engineer.

**Who discovered the problem:** Paul Dawson

**Name of individual from Contractor notified:** Li Jingbo

**Time and method of notification:** 2000 hours, 01-01-2010, Verbal

**Name of Caltrans Engineer notified:** Bill Howe

**Time and method of notification:** 2300 hours, 01-02-2010, Email

**QC Inspector's Name:** Li Wang

**Was QC Inspector aware of the problem:**  Yes  No

**Contractor's proposal to correct the problem:**

N/A

**Comments:**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Tsang, Eric	SMR
<b>Reviewed By:</b>	Wahbeh, Mazen	SMR

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# 火工校正报告

## Heat Straightening Report (HSR)

美国海湾大桥 San Francisco Oakland Bay Bridge

报告号/Report No.:	HSR(B)-340
版本号/Revision No.:	1
日期/Date	2009.12.31

CALTRANS #04-0120F4 工程编号 JOB#: ZP06-787

装配/Assembly:	N/A	质检代表/Quality Control Representative
部装/Sub-Assembly:	N/A	
梁段/Gird:	6CW	质检经理/Quality Assurance Manager-Approval
塔段/Tower:	N/A	
焊缝号/Weld No:	On Sketch	
焊缝地图号/Weld Map No:	On Sketch	

### 情况描述/Description of Condition

Cause/原因	Welding distortion 焊接变形
Type of Defect/缺陷类型	Welding distortion 焊接变形
Inspection Method/检查方法	Visual 目检

### 处置方法/Disposition

缺陷去除方法(Defect Removal Method):  
Using hand torch and Jack, Jack shall be used in a manner such that all forces are applied passively.  
使用火焰枪以及千斤顶进行校火,千斤顶只能起到固定作用不能产生塑性变形。

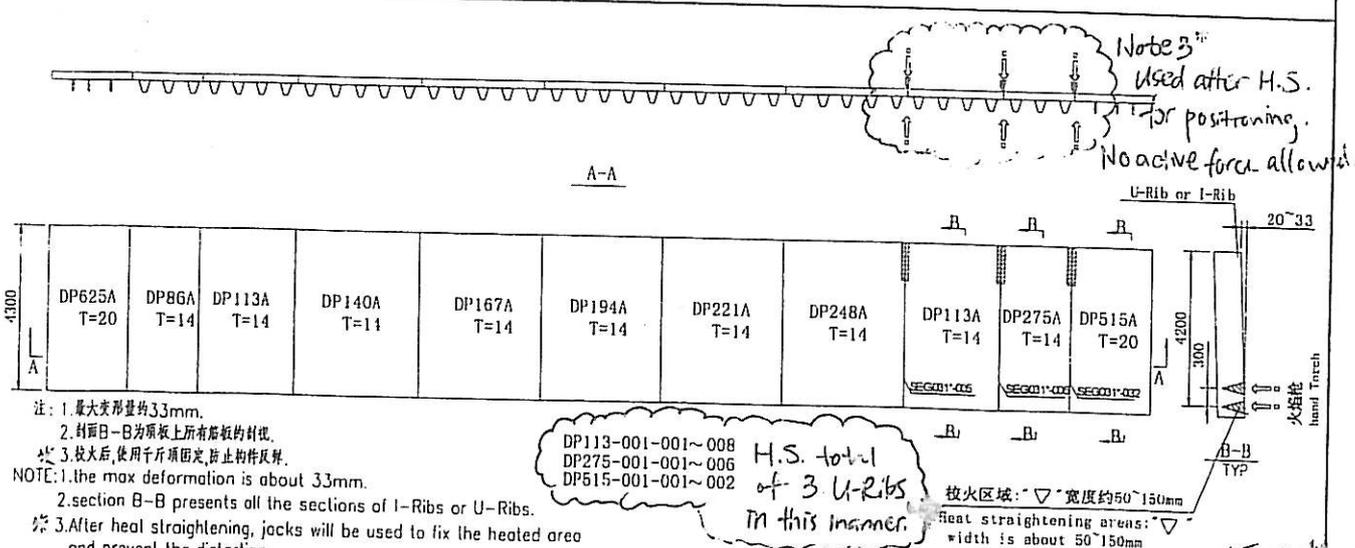
后续NDE(Post-Removal NDE):  
Jacking shall not be used to plastically deform the flange. The Jack shall only be used as a fixture After finishing heat straightening, the weld of the heat area shall perform NDT according to the approved shop drawing. 不能使用千斤顶进行塑性变形,千斤顶只能用作固定装置,校火后需按照图纸上的要求对热影响区域进行NDT检测。

纠正措施(Corrective Action(s)):  
Increase the flange anti-deformation allowance during the course of fit-up and Control the welding parameters according to associated WPS. 在装配的过程中增加反变形量,根据相关WPS控制焊接参数。

实施次数(Number of application): 1~3

最高温度(Maximum temperature): <650°C

### 简图/Sketch



注: 1. 最大变形量约33mm.  
2. 剖面B-B为原板上所有肋板的剖视.  
3. 校火后,使用千斤顶固定,防止构件反弹.  
NOTE: 1. the max deformation is about 33mm.  
2. section B-B presents all the sections of I-Ribs or U-Ribs.  
3. After heat straightening, jacks will be used to fix the heated area and prevent the distortion.

DP113-001-001~008  
DP275-001-001~006  
DP515-001-001~002  
H.S. total of 3 U-Ribs in this manner.

校火区域: ▽ 宽度约50\*150mm  
Heat straightening areas: ▽ width is about 50\*150mm

\*\*\*To be signed when Closing HSR~Verify compliance and all necessary reports are ready to attach\*\*\*

检验员/Inspector:		签字/Signature:	
CWI #		Closing Date:	
II 级探伤 NDE Certification:	Level II	审核日期/Review Date:	
质检经理/QC Manager			

Note: All repair work shall be performed in accordance with applicable CALTRANS approved procedures, contract specifications and AWS D1.5 2002

#R787-QCP-1100

## NCR PROPOSED RESOLUTION

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

**Dated:** 11-Feb-2010

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

**Attention:** Pursell, Gary  
Resident Engineer

**Job Name:** SAS Superstructure

**Ref:** 05.03.06-000541

**Document No.:** ABF-NPR-000460 **Rev:** 01

**Subject:** NCR No. ZPMC-0551

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### Contractor's Proposed Resolution:

**Reference Resolution:** Per Caltrans' response to the NPR, ZPMC is submitting the HSR used. ZPMC is requesting closure of this NCR.  
Per Caltrans' response to the NPR, ZPMC is submitting the HSR used. ZPMC is requesting closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000460R01;

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### Caltrans' comments:

**Status:** CLO

**Date:** 14-Feb-2010

The documentation received is sufficient to close this NCR.

**Submitted by:** Howe, Bill

**Date:** 14-Feb-2010

**Attachment(s):**



No. B-608

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-2-11**

**REGARDING: NCR-00578 (ZPMC-0551)**

With this letter of response, ZPMC requests closure of CT NCR-000578 (ZPMC-0551), what mentioned that CT Inspector observed the Heat Straightening was performed deviating from the HSR procedure.

As per caltrans' comments in ABF-NPR-000460 R0. ZPMC provides the revised HSR for Engineer to review, requests closure of this NCR.

**ATTACHMENT:**

NCR-000578 (ZPMC-0551)

HSR(B)-340 R2

ABF-NPR-000460 R0

HSR(B)-340 R1

A handwritten signature in blue ink, appearing to be "L. J. ...", is written over the attachment list.

2/11/10



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:** 03-Jan-2010

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

**Dear:** Mr. Charles Kanapicki

**Job Name:** SAS Superstructure

**Attention:** Mr. Thomas Nilsson Project/Fabrication Manager

**Document No:** 05.03.06-000541

**Subject:** NCR No. ZPMC-0551

**Reference Description:** The performed heat straightening in 6CW closed rib was deviated from the approved HSR procedure

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:** OBG

**Lift:** 06

### Remarks:

During the Quality Assurance in-process inspection of Closed Ribs being Heat Straightened at OBG segment 6CW, this Quality Assurance Inspector (QA) discovered the following issues:

- Deck Plates (DP) identified as: DP515A and DP275A are located inside segment 6CW.
- Heat Straightening (HS) was performed at two locations on each rib, one at approximately 160mm and the second at 620mm as measured from Floor Beam FB35A located at PP44 (as measured toward PP43).
- A total of seven (7) Closed Ribs were heat straightened. This is a deviation from the approved HSR document of heating the 3 closed ribs at the specified locations.
- Three (3) Closed Ribs were HS on DP515A and four (4) on DP275A.
- ZPMC QC or CWI were not present during the time of the HS process.
- Orthotropic Box Girder (OBG) segment 6CW is located in the Trial Assembly area.

### Action Required and/or Action Taken:

Submit an amended HS plan for the additional 4 closed ribs. Ensure QC is present during the operation. A response for the resolution of this issue is expected within 7 days.

**Transmitted by:** Bill Howe Sr. Transportation Engineer

**Attachments:** ZPMC-0551

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao

**File:** 05.03.06

**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF ENGINEERING SERVICES**  
Office of Structural Materials  
Quality Assurance and Source Inspection



Bay Area Branch  
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(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-000578

**Prime Contractor:** American Bridge/Fluor Enterprises, a JV

**Date:** 01-Jan-2010

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

**NCR #:** ZPMC-0551

### Type of problem:

**Welding**  **Concrete**  **Other**

**Welding**  **Curing**  **Procedural**  **Bridge No:** 34-0006

**Joint fit-up**  **Coating**  **Other**  **Component:** Segment 6CW Closed Rib

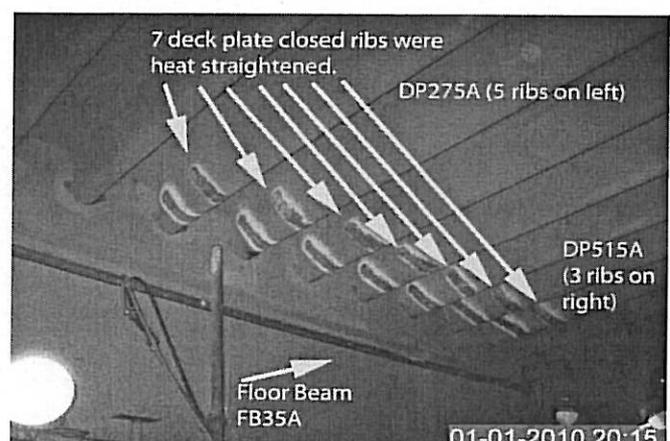
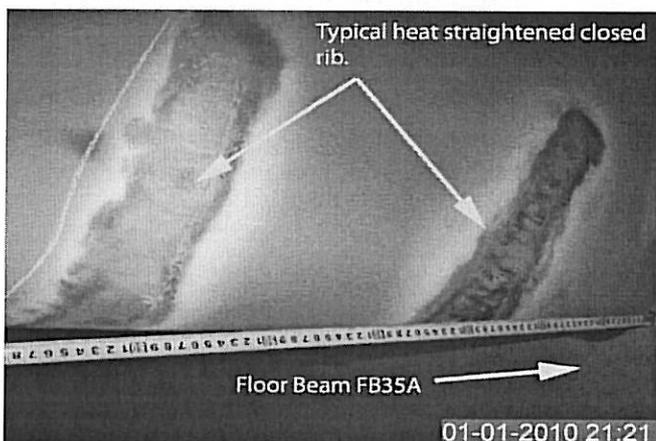
**Procedural**  **Procedural**  **Description:** Work deviated from the approved procedure

**Reference Description:** The performed heat straightening in 6CW closed rib was deviated from the approved HSR procedure

### Description of Non-Conformance:

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Applicable reference:**

Approved Heat Straightening Report HSR(B)-340 Rev 1; "the approved procedure has approved Heat Straightening for 3 Closed Ribs at the specified locations."

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**Who discovered the problem:** Paul Dawson

**Name of individual from Contractor notified:** Li Jingbo

**Time and method of notification:** 2000 hours, 01-01-2010, Verbal

**Name of Caltrans Engineer notified:** Bill Howe

**Time and method of notification:** 2300 hours, 01-02-2010, Email

**QC Inspector's Name:** Li Wang

**Was QC Inspector aware of the problem:**  Yes  No

**Contractor's proposal to correct the problem:**

N/A

**Comments:**

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<b>Inspected By:</b>	Tsang, Eric	SMR
<b>Reviewed By:</b>	Wahbeh, Mazen	SMR

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# 火工校正报告

## Heat Straightening Report (HSR)

报告号/Report No.:	HSR(B)-340
版本号/Revision No.:	2
日期/Date	2009.12.31

美国海湾大桥 San Francisco Oakland Bay Bridge

CALTRANS #04-0120F4 工程编号JOB#: ZP06-787

装配Assembly:	N/A	质检代表/Quality Control Representative
部装Sub-Assembly:	N/A	
梁段Gird:	6CW	质检经理/Quality Assurance Manager-Approval <i>2009.12.31</i>
塔段Tower:	N/A	<i>L. Karwina</i>
焊缝号Weld No:	On Sketch	
焊缝地图号Weld Map No:	On Sketch	

### 情况描述 Description of Condition

Cause原因: Welding distortion 焊接变形  
 Type of Defect缺陷类型: Welding distortion 焊接变形  
 Inspection Method检查方法: Visual 目检

### 处置方法 Disposition

缺陷去除方法(Defect Removal Method):

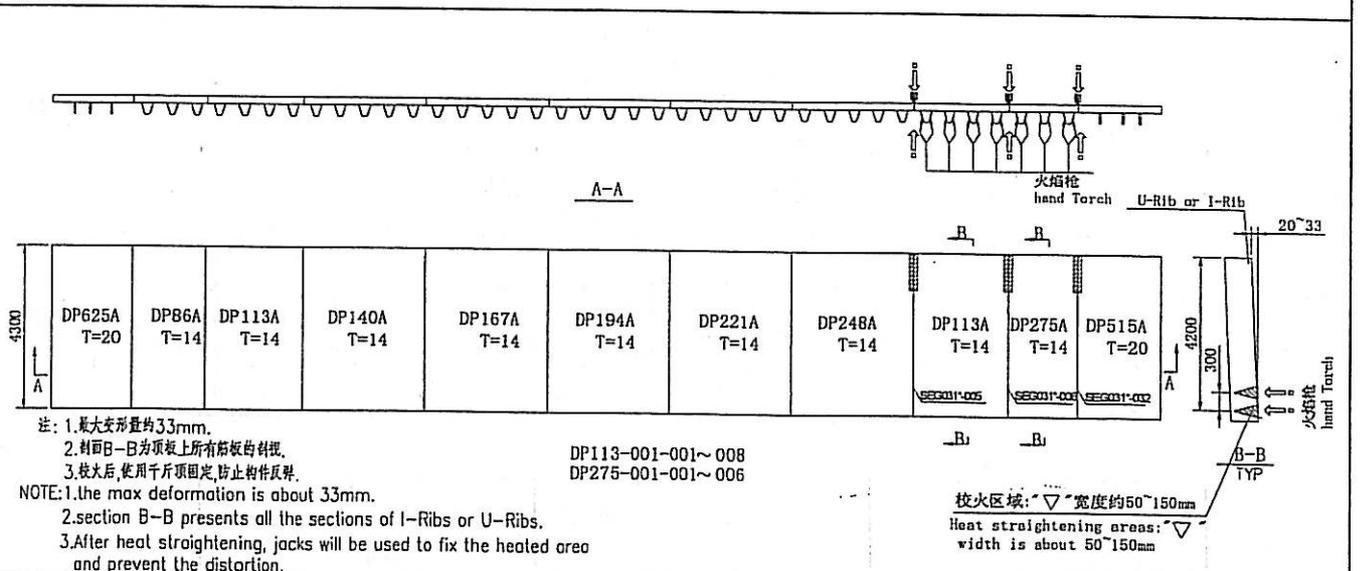
Using hand torch and Jack, Jack shall be used in a manner such that all forces are applied passively.  
 使用火焰枪以及千斤顶进行校火,千斤顶只能起到固定作用不能产生塑性变形。

后续NDE(Post-Removal NDE):  
*Jacking shall not be used to plastically deform the flange. The Jack shall only be used as a fixture. After finishing heat straightening, the weld of the heat area shall perform NDT according to the approved shop drawing. 不能使用千斤顶进行塑性变形。千斤顶只能用作固定装置。校火后需按照图纸上的要求对热影响区域进行NDT检测。*

纠正措施(Corrective Action(s)):  
*Increase the flange anti-deformation allowance during the course of fit-up and Control the welding parameters according to associated WPS. 在装配的过程中增加反变形用量。根据相关WPS控制焊接参数。*

实施次数(Number of application): 1~3  
 最高温度(Maximum temperature): <650 °C

### 简图 Sketch



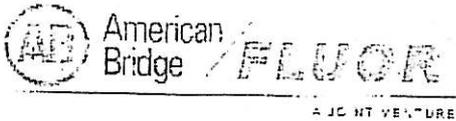
\*\*\*To be signed when Closing HSR~Verify compliance and all necessary reports are ready to attach\*\*\*

检验员 Inspector:		签字 Signature:	
CWI #		Closing Date:	
II 级探伤 NDE Certification:	Level II		
质检经理 QC Manager		审核日期 Review Date:	

Note: All repair work shall be performed in accordance with applicable CALTRANS approved procedures, contract specifications and AWS D1.5 2002.

#R787-QCP-1100

This document is / 3310 / 131  
 11/15/10



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: 05.03.06-000541

Subject: NCR No. ZPMC-0551

Dated: 11-Jan-2010

Contract No.: 04-0120F4

04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000460 Rev: 00

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### Contractor's Proposed Resolution:

Reference Resolution: ABF QCM has discussed with ZPMC QA/QC that the CWI must be present during all heat straightening, if present, this misunderstanding could have been avoided as well as this NCR.

This NCR states the HSR specifies (3) closed ribs to be heat straightened while in fact 7 ribs were observed as showing heat marks. However, contrary to the NCR, the HSR is intended to mean 3 deck panels as shown in below the sketch of deck panels. A misunderstanding in nomenclature. In this case ZPMC was following the HSR. ABF QCM has discussed with ZPMC QA/QC that the CWI must be present during all heat straightening, if present, this misunderstanding could have been avoided as well as this NCR. ZPMC request closure of this NCR.

Submitted by: Lawton, Steve

Attachment(s): ABF-NPR-000460R00;

---

Caltrans' comments:

Status: REJ

Date: 11-Jan-2010

Submit a revised HSR that shows what was actually done.

Submitted by: Howe, Bill

Attachment(s):

Date: 11-Jan-2010



# 火工校正报告

## Heat Straightening Report (HSR)

报告号/Report No.: HSR(B)-340  
 版本号/Revision No.: 1  
 日期Date: 2009.12.31

美国海湾大桥 San Francisco Oakland Bay Bridge

CALTRANS #04-0120F4 工程编号JOB#: ZP06-787

装配Assembly:	N/A	质检代表/Quality Control Representative
部装Sub-Assembly:	N/A	
梁段Gird:	6CW	质检经理/Quality Assurance Manager-Approval
塔段Tower:	N/A	
焊缝号Weld No:	On Sketch	
焊缝地图号Weld Map No:	On Sketch	

### 情况描述 Description of Condition

Cause原因: Welding distortion 焊接变形  
 Type of Defect缺陷类型: Welding distortion 焊接变形

Inspection Method检查方法: Visual-目检

This document is APPROVED AS NOTED  
 State of California  
 DEPARTMENT OF TRANSPORTATION  
 Pursuant to Section 6-1.02 of the  
 Standard Specifications  
 Initial S/E Date: 11/10

### 处置方法 Disposition

缺陷去除方法(Defect Removal Method):

Using hand torch and Jack, Jack shall be used in a manner such that all forces are applied passively.  
 使用火焰枪以及千斤顶进行校火,千斤顶只能起到固定作用不能产生塑性变形。

后续NDE(Post-Removal NDE):

Jacking shall not be used to plastically deform the flange. The Jack shall only be used as a fixture After finishing heat straightening, the weld of the heat area shall perform NDT according to the approved shop drawing. 不能使用千斤顶进行塑性变形,千斤顶只能用作固定装置。校火后需按照图纸上的要求对热影响区域进行NDT检测。

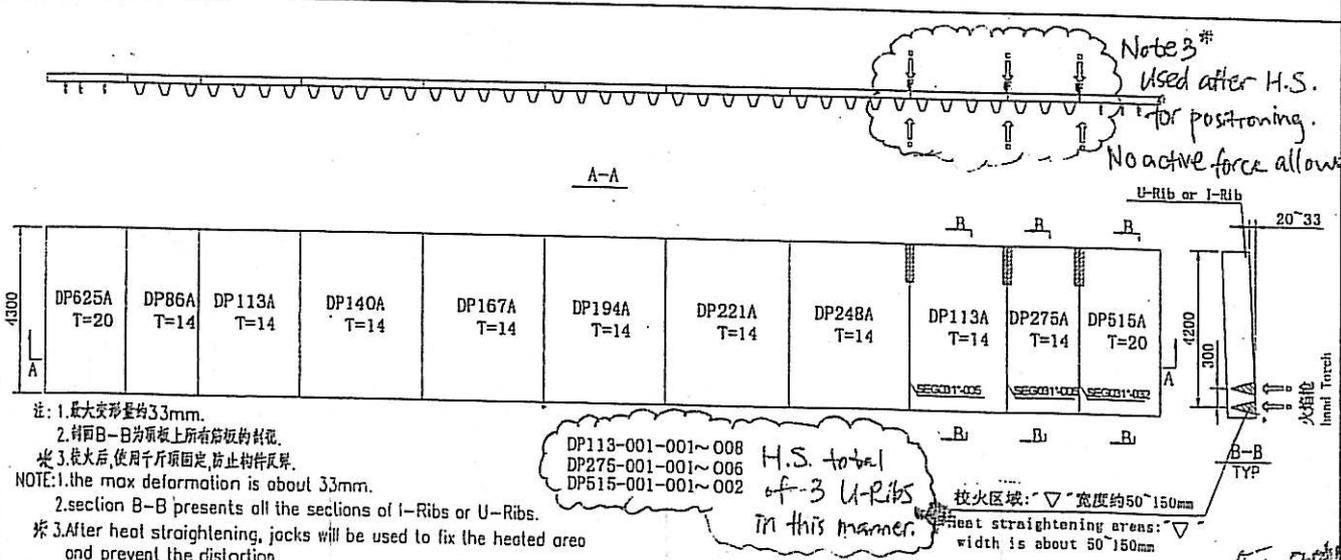
纠正措施(Corrective Action(s)):

Increase the flange anti-deformation allowance during the course of fit-up and Control the welding parameters according to associated WPS. 在装配的过程中增加反变形雨量。根据相关WPS控制焊接参数。

实施次数(Number of application): 1~3

最高温度(Maximum temperature): <650°C

### 简图 Sketch



\*\*\*To be signed when Closing HSR~Verify compliance and all necessary reports are ready to attach\*\*\*

检验员 Inspector:		签字 Signature:	
CWI #		Closing Date:	
II 级探伤 NDE Certification:	Level II	审核日期 Review Date:	
质检经理 QC Manager			

Note: All repair work shall be performed in accordance with applicable CALTRANS approved procedures, contract specifications and AWS D1.5 2002

#R787-QCP-1100

**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-000526**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 11-Mar-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0551**Type of problem:**

<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b>
<b>Procedural</b>	<b>Procedural</b>	<b>Descriptor:</b>	

**Date the Non-Conformance Report was written:** 01-Jan-2010**Description of Non-Conformance:**

During the Quality Assurance in-process inspection of Closed Ribs being Heat Straightened at OBG segment 6CW, this Quality Assurance Inspector (QA) discovered the following issues:

- Deck Plates (DP) identified as: DP515A and DP275A are located inside segment 6CW.
- Heat Straightening (HS) was performed at two locations on each rib, one at approximately 160mm and the second at 620mm as measured from Floor Beam FB35A located at PP44 (as measured toward PP43).
- A total of seven (7) Closed Ribs were heat straightened. This is a deviation from the approved HSR document of heating the 3 closed ribs at the specified locations.
- Three (3) Closed Ribs were HS on DP515A and four (4) on DP275A.
- ZPMC QC or CWI were not present during the time of the HS process.
- Orthotropic Box Girder (OBG) segment 6CW is located in the Trial Assembly area.

**Contractor's proposal to correct the problem:**

Provide Heat Straightening Record reflecting work performed in the field.

**Corrective action taken:**

Contractor has submitted an HSR detailing the work performed as referenced in this report.

**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 Jim Simonis 152. 1675.3703, who represents the Office of Structural Materials for your project.

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# QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

( Continued Page 2 of 2 )

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**Inspected By:** Simonis,Jim

Quality Assurance Inspector

**Reviewed By:** Wahbeh,Mazen

QA Reviewer