

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, Shanghia, P.R. China

Report No: NCR-000681

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 16-Feb-2010

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

NCR #: ZPMC-0648

Type of problem:

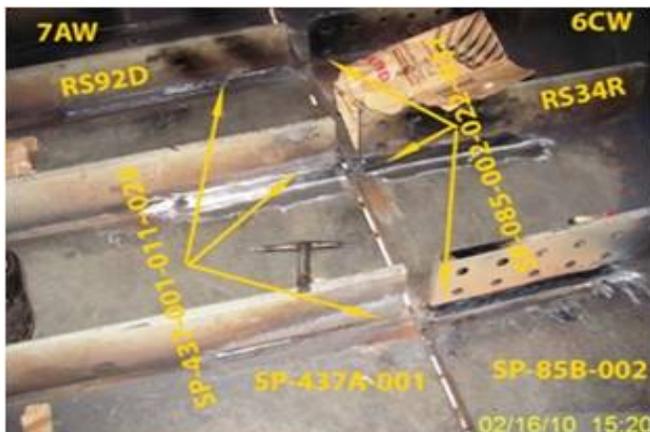
| | | | |
|---------------------|-------------------|---------------------|--|
| Welding | Concrete | Other | |
| Welding | Curing | Procedural | Bridge No: 34-0006 |
| Joint fit-up | Coating | Other | Component: OBG Segments 6CW & 7AW |
| Procedural | Procedural | Description: | |

Reference Description: Side Panel to Open Rib Stiffener welds

Description of Non-Conformance:

During random in-process inspection of Orthotropic Box Girder (OBG) segments 6CW and 7AW, this Quality Assurance Inspector (QA) discovered the following issues:

- ZPMC has deviated from the approved weld joint design without the Engineers approval.
 - ZPMC personnel installed Complete Joint Penetration (CJP) welds in lieu of fillet welds as detailed on approved shop drawings SP085 and SP437.
 - The affected joints in segment 6CW are identified as SP085-002-022~031.
 - The affected joints in segment 7AW are identified as SP437-001-011~020.
 - The welds are located in between Panel Point 47 (PP47) and PP48 on the Crossbeam side.
 - The welds in question are at the hold back locations joining RS34R Open Rib Stiffeners to Side Panel SP085B-002 on segment 6CW, and the RS92D Open Rib Stiffeners to Side Panel SP437A-001 on segment 7AW.
 - OBG Segments 6CW and 7AW are located in the OBG Trial Assembly Yard.
- For further information, please see the pictures below.



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Applicable reference:

AWS D1.5-2002 section 6.5.1; “The Inspector shall make certain that the size, length, and location of all welds conform to the requirements of this code and to the detail drawings and that no unspecified welds have been added without approval”.

AWS D1.5 2002 section 3.7.4 “Prior approval of the Engineer shall be obtained for repairs to base metal (other than those required by 3.2), repair of major or delayed cracks, repairs to ESW and EGW welds with internal defects, or for a revised design to compensate for deficiencies.”

Who discovered the problem: Subhasis Bera

Name of individual from Contractor notified: Peter Shaw

Time and method of notification: 07:30_02-17-10_Verbal

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 14:00_2-17-10_Verbal

QC Inspector's Name: Li Yang

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.

Inspected By: Simonis,Jim

QA Inspector

Reviewed By: Wahbeh,Mazen

SMR



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
 333 Burma Road
 Oakland CA 94607
 Tel: Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
 375 BURMA ROAD
 OAKLAND CA 95607

Date: 17-Feb-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-0648

Job Name: SAS Superstructure
Document No: 05.03.06-000638

Reference Description: Side Panel to Open Rib Stiffener 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: OBG **Lift:** 07

Remarks:

During random in-process inspection of Orthotropic Box Girder (OBG) segments 6CW and 7AW, this Quality Assurance Inspector (QA) discovered the following issues:

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- OBG Segments 6CW and 7AW are located in the OBG Trial Assembly Yard.

For further information, please see the pictures below.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 7 days.

Transmitted by: Bill Howe Sr. Transportation Engineer
Attachments: ZPMC-0648

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao
File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000638

Subject: NCR No. ZPMC-0648

Dated: 17-May-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000661 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has received approval to change the weld joints into complete joint penetration welds. Attached is NDT documentation to show that the welds are acceptable.

ZPMC has received approval to change the weld joints into complete joint penetration welds. Attached is NDT documentation to show that the welds are acceptable. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000661R00;

Caltrans' comments:

Status: CLO

Date: 23-May-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0648 is closed.

Submitted by: Eagen, Sean

Attachment(s):

Date: 23-May-2010



No. B-758

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-5-17

REGARDING: NCR-000681(ZPMC-0648)

ZPMC is providing the NDT record show these welds have been changed into CJP and are acceptable after sequent repair. For detail please refer to B-JC26. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000681(ZPMC-0648)

B787-UT-11761

B787-UT-11761 R1

B787-UT-12091

B787-UT-12091 R1

by [signature]
5/17/10



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: 17-Feb-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: 05.03.06-000638

Subject: NCR No. ZPMC-0648

Reference Description: Side Panel to Open Rib Stiffener welds

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Attachments: ZPMC-0648

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

File: 05.03.06

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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-000681

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 16-Feb-2010

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

NCR #: ZPMC-0648

Type of problem:

Welding Concrete Other

Welding Curing Procedural

Joint fit-up Coating Other

Procedural Procedural Description:

Bridge No: 34-0006

Component: OBG Segments 6CW & 7AW

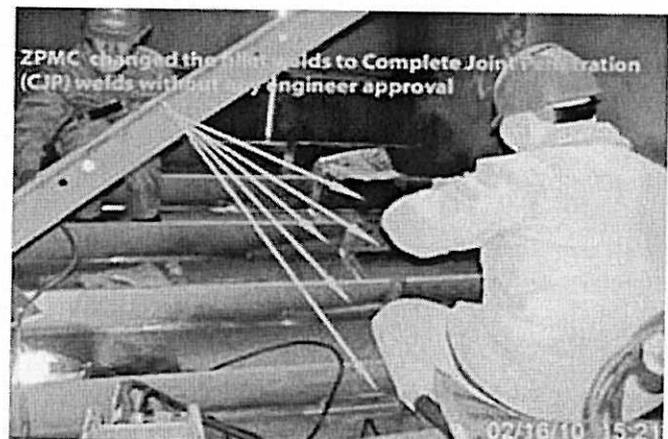
Reference Description: Side Panel to Open Rib Stiffener welds

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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

: (Continued Page 2 of 2)

Applicable reference:

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Time and method of notification: 07:30_02-17-10_Verbal

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 14:00_2-17-10_Verbal

QC Inspector's Name: Li Yang

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.

| | | |
|----------------------|--------------|--------------|
| Inspected By: | Simonis,Jim | QA Inspector |
| Reviewed By: | Wahbeh,Mazen | SMR |



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 B787-UT-11761 DATE 2010.03.16 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: 6CW CORNER ASSEMBLY DRAWING NO.: OBW6 CALTRANS CONTRACT NO.: 04-0120F4
 部件名称 图号 加州工程编号

REFERENCING CODE 参考规范 ACCEPTANCE STANDARD 接受标准 PROCEDURE NO. 程序编号
 AWS D1.5-2002 AWS D1.5-2002(Table 6.3) ZPQC-UT-01

WELDING PROCESS 焊接方法 JOINT TYPE 焊缝类型 CALIBRATION DUE DATE 仪器校正有效期
 FCAW SMAW T-JOINT Dec. 28ST, 2010

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-345 16/20mm

TRANSDUCER 探头

| MANUFACTURER 制造商 | ANGLE 角度 | FREQUENCY 频率 | SIZE 尺寸 | MANUFACTURER 制造商 | ANGLE 角度 | FREQUENCY 频率 | SIZE 尺寸 |
|------------------|----------|--------------|---------|-----------------------|----------|--------------|---------|
| Changchao | 70° | 2.5MHz | 18×18mm | | | | |
| Changchao | 0° | 2.5MHz | 20mm | Reference Level 参考灵敏度 | | 20dB | |

Base metal inspected per AWS D1.5-2002 Section 6.19.5 0° UT OK.

| WELD IDENTIFICATION 焊缝部件编号 | INDICATION NO. 指示号 | PROBE ANGLE 探测角度 | FROM FACE 检测面 | LEG (次数) | DECIBELS 分贝 | | | | DISCONTINUITY 不连续性 | | | | | Discontinuity Evaluation 缺陷估计 | Remarks 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 |
| SP085-001-030 | | 70 | | | | | | | | | | | | | | ACC. | 10 | |
| SP085-001-028 | | 70 | | | | | | | | | | | | | | | ACC. | 10 |
| SP085-001-026 | | 70 | | | | | | | | | | | | | | | ACC. | 10 |
| SP085-001-024 | 1 | 70 | A | 1 | 42 | 33 | 1 | +8 | 20 | 39 | 13 | -4 | 285 | | | REJ. | 10 | |
| SP085-001-022 | | 70 | | | | | | | | | | | | | | | ACC. | 10 |
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| | | | | | | | | | | | | | | | | | | |
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| | |
|---|---|
| EXAMINED BY 主操 <i>Tang Xinyi Shann 2010.3.16</i> LEVEL - II SIGN / DATE | REVIEWED BY 审核 <i>Xu Rong gang 2010.3.16</i> LEVEL - II SIGN / DATE |
| 质量经理 / QCM _____ 签字 SIGN / 日期 DATE | 用户 CUSTOMER _____ 签字 SIGN / 日期 DATE |



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 B787-UT-11761R1 DATE 2010.03.18 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: 6CW CORNER ASSEMBLY DRAWING NO.: OBW6 CALTRANS CONTRACT NO.: 04-0120F4
 部件名称 图号 加州工程编号

REFERENCING CODE 参考规范 ACCEPTANCE STANDARD 接受标准 PROCEDURE NO. 程序编号
 AWS D1.5-2002 AWS D1.5-2002(Table 6.3) ZPQC-UT-01

WELDING PROCESS 焊接方法 JOINT TYPE 焊缝类型 CALIBRATION DUE DATE 仪器校正有效期
 SMAW T-JOINT Dec. 28ST, 2010

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-345 16/20mm

TRANSDUCER 探头

| MANUFACTURER 制造商 | ANGLE 角度 | FREQUENCY 频率 | SIZE 尺寸 | MANUFACTURER 制造商 | ANGLE 角度 | FREQUENCY 频率 | SIZE 尺寸 |
|---------------------|-------------|-----------------|------------|-----------------------|-------------|-----------------|------------|
| Changchao | 70° | 2.5MHz | 18×18mm | | | | |
| Changchao | 0° | 2.5MHz | 20mm | Reference Level 参考灵敏度 | | | 20dB |

Base metal inspected per AWS D1.5-2002 Section 6.19.5 0° UT OK.

| WELD IDENTIFICATION 焊缝部件编号 | INDICATION NO. 指示号 | PROBE ANGLE 探测角度 | FROM FACE 检测面 | LEG (次数) | DECIBELS 分贝 | | | | DISCONTINUITY 不连续性 | | | | | Discontinuity Evaluation 缺陷估计 | Remark 备注 |
|-------------------------------|-----------------------|---------------------|------------------|----------|------------------|-----------------|--------------------|-------------------|--|------------------|-----------------------------|--------------|--------------|----------------------------------|--------------|
| | | | | | Indication Level | Reference Level | Attenuation Factor | Indication Rating | LOCATION OF DISCONTINUITY 不连续位置(mm) | | | | | | |
| | | | | | a | b | c | d | Length 长度 | Sound Path 声程 | Depth from Surface 距表面深度 | From'X 距X | From'Y 距Y | | |
| SP085-001-024 | 1R1 | 70 | | | | 32 | | | | | | | | ACC. | 100% |

AFTER B-WR11083

BLANK

EXAMINED BY 主探: *[Signature]* REVIEWED BY 审核: *[Signature]*
 LEVEL - II SIGN / DATE 10.03.18 LEVEL - II SIGN / DATE 10.03.18

质量经理 / QCM 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



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghia, P.R. China**Report No:** NCS-000624**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 24-May-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0648**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: 16-Feb-2010**Description of Non-Conformance:**

During random in-process inspection of Orthotropic Box Girder (OBG) segments 6CW and 7AW, this Quality Assurance Inspector (QA) discovered the following issues:

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- OBG Segments 6CW and 7AW are located in the OBG Trial Assembly Yard.

For further information, please see the pictures below.

Contractor's proposal to correct the problem:

Document locations of weld type changes and perform NDT required to verify weld quality.

Corrective action taken:

Contractor submitted request to change joint type after work was complete, and supplied post repair NDT reports verifying the welds in question are in conformance with the Contract weld quality requirements.

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:**

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QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Materials for your project.

Inspected By: Simonis,Jim

Quality Assurance Inspector

Reviewed By: Wahbeh,Mazen

QA Reviewer
