

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCR-000650**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 24-Jan-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0621**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Segment 7EW Deck Panel
Procedural	Procedural	Description: Missed MT and UT indications by QC	

Reference Description: Missed MT and UT indications by QC on 7EW weld joints for DP to DP and DP diaphragm to U-rib

Description of Non-Conformance:

During the Quality Assurance (QA) Ultrasonic Testing (UT) review of welds located on Segment 7EW, this QA Inspector discovered the following:

- One (1) Class "A" indication measuring approximately 20 mm in length.
- The dBs rating is +2.
- The material thickness is 14mm.
- The weld is identified as SEG041*-006.
- The weld is a Complete Joint Penetration (CJP) butt weld joining Deck Plate DP226A to DP253A.
- This weld joint is designated as Non Seismic performance critical weld member (Non SPCM).
- The Notice of Witness Inspection Number (NWIT) is 005120. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld.

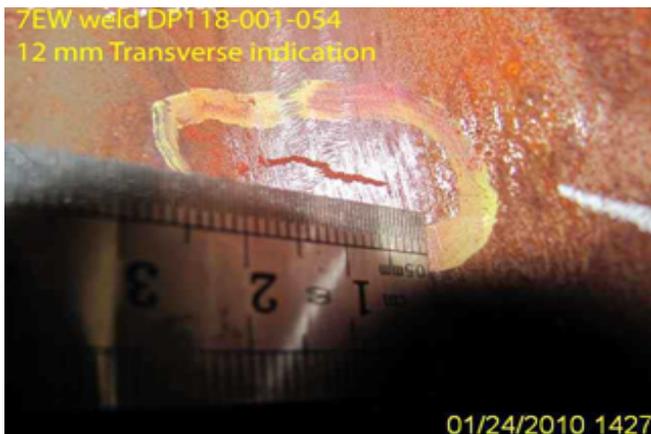
During the QA Magnetic Particle Testing (MT) review of welds located on Segment 7EW, this QA Inspector discovered the following issues:

- Three (3) Transverse linear indications measuring approximately from 9 mm to 12 mm in length.
 - The welds are identified as: DP280-001-056 (9mm in length Y = 175mm), DP118-002-070 (12mm in length Y = 190mm) and DP118-001-054 (12mm in length Y = 200mm) @ Panel Point (PP)-060.
 - The material is 14mm thick.
 - These welds are Complete Joint Penetration welds joining the U-rib to the deck panel diaphragm.
 - The Notice of Witness Inspection Number (NWIT) is 005120.
 - ZPMC Quality Control (QC) personnel have performed 100% Magnetic Particle Testing of these welds.
- One (1) Transverse linear indication measuring approximately 15mm in length.
 - The weld is identified as: DP118-002-038 @ PP 059.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)

- This weld is a Complete Joint Penetration (CJP) Weld joining the Deck Panel U-Rib to Deck Panel Diaphragm.
- Y location is 180mm from the deck panel.
- The indication is clearly marked on the material near the weld.
- The Deck Panel U-Rib and Deck Panel Diaphragm are identified as Non SPCM.
- OBG segment 7EW is located outside north end of Bay 13 area.
- The Notice of Witness Inspection Number (NWIT) is 005120. The indication is located inside an area that has been previously tested by ZPMC Quality Control (QC) personnel. Per contract documents ZPMC is required to perform 100% Magnetic particle Testing (MT) of this weld.



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Applicable reference:

AWS D1.5-2002, Section 6, Table 6.3 specifies a class A indication as having a dBs rating of +10 and lower for weld thicknesses 8mm through 20mm.

Special Provisions Section 8.3: "Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents."

AWS D1.5 2002, Section 6.26.2 – "Welds that are subject to MT in addition to visual inspection shall have no cracks.

Who discovered the problem: Chandra Sudalaimuthu, Larry Viars, Vibin Kumar S.

Name of individual from Contractor notified: Wei Jian Bo

Time and method of notification: 1730 hours, 1/24/10, Verbal

Name of Caltrans Engineer notified: Bill Howe, Ching Chao

Time and method of notification: 1330 hours, 1/25/10, Email

QC Inspector's Name: Zhang Wei, Wang Wei Ming

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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By:	Tsang, Eric	SMR
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Reviewed By:	Wahbeh, Mazen	SMR
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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-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: 05.03.06-000614

Subject: NCR No. ZPMC-0621

Reference Description: Missed MT and UT indications by QC on 7EW weld joints for DP to DP and DP diaphragm to U-rib

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 the Quality Assurance (QA) Ultrasonic Testing (UT) review of welds located on Segment 7EW, this QA Inspector discovered the following:

- One (1) Class "A" indication measuring approximately 20 mm in length.
- The dBs rating is +2.
- The material thickness is 14mm.
- The weld is identified as SEG041*-006.
- The weld is a Complete Joint Penetration (CJP) butt weld joining Deck Plate DP226A to DP253A.
- This weld joint is designated as Non Seismic performance critical weld member (Non SPCM).
- The Notice of Witness Inspection Number (NWIT) is 005120. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld.

During the QA Magnetic Particle Testing (MT) review of welds located on Segment 7EW, this QA Inspector discovered the following issues:

- Three (3) Transverse linear indications measuring approximately from 9 mm to 12 mm in length.
- The welds are identified as: DP280-001-056 (9mm in length Y = 175mm), DP118-002-070 (12mm in length Y = 190mm) and DP118-001-054 (12mm in length Y = 200mm) @ Panel Point (PP)-060.
- The material is 14mm thick.
- These welds are Complete Joint Penetration welds joining the U-rib to the deck panel diaphragm.
- The Notice of Witness Inspection Number (NWIT) is 005120.
- ZPMC Quality Control (QC) personnel have performed 100% Magnetic Particle Testing of these welds.

- One (1) Transverse linear indication measuring approximately 15mm in length.
- The weld is identified as: DP118-002-038 @ PP 059.
- This weld is a Complete Joint Penetration (CJP) Weld joining the Deck Panel U-Rib to Deck Panel Diaphragm.

NCT

(Continued Page 2 of 2)

- Y location is 180mm from the deck panel.
 - The indication is clearly marked on the material near the weld.
 - The Deck Panel U-Rib and Deck Panel Diaphragm are identified as Non SPCM.
 - OBG segment 7EW is located outside north end of Bay 13 area.
 - The Notice of Witness Inspection Number (NWIT) is 005120. The indication is located inside an area that has been previously tested by ZPMC Quality Control (QC) personnel. Per contract documents ZPMC is required to perform 100% Magnetic particle Testing (MT) of this weld.
- Please see attached NCR ZPMC-621 for details.

Action Required and/or Action Taken:

Propose a resolution for the identified recurring non-conformance which constitutes a systematic problem on both materials/workmanship and quality control issues with revised procedures to remedy the defected work and to prevent future occurrences. A response for the resolution of this issue is expected within 14 days.

Transmitted by: Ching Chao

Attachments: ZPMC-0621

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

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000614

Subject: NCR No. ZPMC-0621

Dated: 08-Feb-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000559 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: The ABFJV QCM has instituted training sessions for ZPMC inspectors. In addition to training, ABF has purchased new equipment to standardize both ABF and ZPMC with the equipment used by Caltrans.

ZPMC and ABFJV have taken steps to reduce the number of both MT and UT missed indications. The ABFJV QCM has instituted training sessions for ZPMC inspectors to reinforce key points of performing UT and MT, the most recent was held in December 2009. The ZPMC Level III has conducted training with the inspectors as well. In addition to training, ABF has purchased new equipment to standardize both ABF and ZPMC with the equipment used by Caltrans. Examples of this are the powder bulbs with magnetic caps, and the same transducers used by Caltrans. Documents of the acceptable NDT will be provided when they are available at a later date. Based on this ZPMC requests that this NCR be approved with actions pending.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000559R00;

Caltrans' comments:

Status: AAP

Date: 08-Feb-2010

AAP approved.

Submitted by: Howe, Bill

Date: 08-Feb-2010

Attachment(s):

Tool Box Training Agenda

Subject: MT Techniques

Reason for Training: Several CT NCR's of indications missed during ZPMC NDT inspection.

1. Safety

- a. Safety Glasses
- b. Gloves (if required)
- c. Knee Pads
- d. Electrical shock

2. Tools

- a. Lighting
- b. MT Powder. Red for ambient, Yellow for High Temperature.
- c. Powder Bulb
- d. Powder Blower
- e. MT Yoke Adequate working condition
- f. Pie Gage

3. Inspection Techniques

- a. Lighting
- b. Position of body (distance of eyes to the weld surface)
- c. Application of Powder removal of Powder
- d. Continuous method
- e. Two directions
- f. Both sides of weld
- g. Clean and dry surface



教育培训纪录

培训编号: MT-22-Dec-09

培训内容:	MT Techniques
培训对象:	项目质检
授课人员:	Steve Lawton
培训类型:	内部培训
培训时间:	22-Dec-09 5:00 PM
计划培训地点:	ZPMC QC office

人员签到:

姓名	部门	姓名	部门
孙力杰 Sunlei	钢桥	狄坤伦 Di Kunlun	钢桥
孙广强 Sun Guangqiang	钢桥	蔡新鑫 Cai Xinxin	钢桥
徐海 Xu Hai	钢桥	傅春强 Fu Chunqiang	钢桥
卞源源 Bian Yuanyuan	钢桥	顾云武 Gu Yunwu	钢桥
许兵 Xu Bing	钢桥	金建廷 Jin Jianting	钢桥 MT
李振华 Li Zhenhua	钢桥	常方杰 Chang Fangjie	钢桥
李坤阳 Li Xunyang	QA	袁俊 Yuan Jun	钢桥
王威 Wang Wei	钢桥	刘章敏 Liu Zhangmin	
孙林 Sun Lin	钢桥 MT	徐华祥 Xu Huaxiang	钢桥
丁阿成 Ding A Cheng	钢桥 MT	周东超 Zhou Dongchao	钢桥
贺佳佳 He Jiajia	钢桥	赵成功 Zhao Chenggong	钢桥
黄瑞 Huang Rui	钢桥	孙广强 Sun Guangqiang	钢桥
李黎明 Li Liming	钢桥	徐辉 Xu Hui	钢桥
李昌涛 Li Changtao		刘宏斌 Liu Hongbin	



教育培训纪录

培训编号:

培训内容:	UT复习培训教程 UT Techniques
培训对象:	ZPMC UT GUYS
授课人员:	STEVE LAWTON
培训类型:	UT Refresher Training Agenda
培训时间:	2009. 12. 24. 16:30
计划培训地点:	ZPMC NDT OFFICE

人员签到:

姓名	部门	姓名	部门
戴建 dai jian	江江 Jiang Jiang		
薛宇 xue yu	黄廷 Huang Ting		
马志长 ma zhi chang	黄廷 Huang Ting		
谭善 tan shan	李黎明 Li Liming		
马建 ma jian	李黎明 Li Liming		
王福 wang fu	徐军 Xu Jun		
沈健 shen jian	李黎明 Li Liming		
黄江 Huang Jiang			
金峰 jin feng			
吴文 wu wen			
解文 jie wen			
周海周 zhou hai zhou			
徐峰 xu feng			

UT Refresher Training Agenda

Subject: UT Techniques

Reason for Training: Several CT NCR's for missed UT indications

1. **Safety**
 - a. Safety Glasses
 - b. Gloves (if required)
 - c. Knee Pads
 - d. Electrical Shock

2. **Tools**
 - a. Calibrated UT Machine condition of machine
 - b. Coaxial cable condition of cable
 - c. Transducer condition of transducer
 - d. IIW Block
 - e. Scraper
 - f. UT couplant

3. **Inspection Techniques**
 - a. Surface preparation
 - b. Location of weld UT from beveled plate
 - c. Scanning patterns
 - d. Correct choice of Angles
 - e. Calibration per ZPMC procedure at regular intervals
 - f. Scanning speed
 - g. Know where your sound is at.... First leg, second leg etc...

4. **Inspection Criteria**
 - a. Table 6.3 or Table 6.4
 - b. Are surface inspections complete VT and or MT should always occur before UT
 - c. Scanning Levels
 - d. Criteria dictated by the thinner of the two members
 - e. Planar flaws

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000614

Subject: NCR No. ZPMC-0621

Dated: 20-May-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000559 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has repaired the indications referenced in the NCR either by weld repair or grinding and is providing the NDT to show that the welds are now acceptable

ZPMC has repaired the indications referenced in the NCR either by weld repair or grinding and is providing the NDT to show that the welds are now acceptable. Also the weld IDs documented in the NCR were incorrect so ZPMC is providing NDT reports for the correct weld IDs. Based on this ZPMC is requesting closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000559R01;

Caltrans' comments:

Status: CLO

Date: 25-May-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0621 is closed.

Submitted by: Eagen, Sean

Attachment(s): NPR CT Comments

Date: 25-May-2010



No. B-763

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-5-20

REGARDING: NCR-000750(ZPMC-0621)

ZPMC is providing the NDT records show the indications have been removed and repaired and the welds are now acceptable. Please be noticed that the correct weld IDs are DP280-001-054 & DP118A-002-068 instead of DP280-001-056 & DP118-002-070 in NCR. And, the linear indication on DP118-002-038 was removed by slight grinding. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000750(ZPMC-0621)

B787-UT-11030 R1

B787-MT-18583 R1

B787-MT-18574 R1

[Handwritten signature]
5/20/10



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-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: 05.03.06-000614

Subject: NCR No. ZPMC-0621

Reference Description: Missed MT and UT indications by QC on 7EW weld joints for DP to DP and DP diaphragm to U-rib

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 the Quality Assurance (QA) Ultrasonic Testing (UT) review of welds located on Segment 7EW, this QA Inspector discovered the following:

- One (1) Class "A" indication measuring approximately 20 mm in length.
- The dBs rating is +2.
- The material thickness is 14mm.
- The weld is identified as SEG041*-006.
- The weld is a Complete Joint Penetration (CJP) butt weld joining Deck Plate DP226A to DP253A.
- This weld joint is designated as Non Seismic performance critical weld member (Non SPCM).
- The Notice of Witness Inspection Number (NWIT) is 005120. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld.

During the QA Magnetic Particle Testing (MT) review of welds located on Segment 7EW, this QA Inspector discovered the following issues:

- Three (3) Transverse linear indications measuring approximately from 9 mm to 12 mm in length.
- The welds are identified as: DP280-001-056 (9mm in length Y = 175mm), DP118-002-070 (12mm in length Y = 190mm) and DP118-001-054 (12mm in length Y = 200mm) @ Panel Point (PP)-060.
- The material is 14mm thick.
- These welds are Complete Joint Penetration welds joining the U-rib to the deck panel diaphragm.
- The Notice of Witness Inspection Number (NWIT) is 005120.
- ZPMC Quality Control (QC) personnel have performed 100% Magnetic Particle Testing of these welds.

- One (1) Transverse linear indication measuring approximately 15mm in length.
- The weld is identified as: DP118-002-038 @ PP 059.
- This weld is a Complete Joint Penetration (CJP) Weld joining the Deck Panel U-Rib to Deck Panel Diaphragm.

NCT

(Continued Page 2 of 2)

-Y location is 180mm from the deck panel.

-The indication is clearly marked on the material near the weld.

-The Deck Panel U-Rib and Deck Panel Diaphragm are identified as Non SPCM.

-OBG segment 7EW is located outside north end of Bay 13 area.

-The Notice of Witness Inspection Number (NWIT) is 005120. The indication is located inside an area that has been previously tested by ZPMC Quality Control (QC) personnel. Per contract documents ZPMC is required to perform 100% Magnetic particle Testing (MT) of this weld.

Please see attached NCR ZPMC-621 for details.

Action Required and/or Action Taken:

Propose a resolution for the identified recurring non-conformance which constitutes a systematic problem on both materials/workmanship and quality control issues with revised procedures to remedy the defected work and to prevent future occurrences. A response for the resolution of this issue is expected within 14 days.

Transmitted by: Ching Chao

Attachments: ZPMC-0621

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

File: 05.03.06

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-000650

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 24-Jan-2010

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

NCR #: ZPMC-0621

Type of problem:

Welding Concrete Other

Welding Curing Procedural Bridge No: 34-0006

Joint fit-up Coating Other Component: Segment 7EW Deck Panel

Procedural Procedural Description: Missed MT and UT indications by QC

Reference Description: Missed MT and UT indications by QC on 7EW weld joints for DP to DP and DP diaphragm to U-rib

Description of Non-Conformance:

During the Quality Assurance (QA) Ultrasonic Testing (UT) review of welds located on Segment 7EW, this QA Inspector discovered the following:

- One (1) Class "A" indication measuring approximately 20 mm in length.
- The dBs rating is +2.
- The material thickness is 14mm.
- The weld is identified as SEG041*-006.
- The weld is a Complete Joint Penetration (CJP) butt weld joining Deck Plate DP226A to DP253A.
- This weld joint is designated as Non Seismic performance critical weld member (Non SPCM).
- The Notice of Witness Inspection Number (NWIT) is 005120. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld.

During the QA Magnetic Particle Testing (MT) review of welds located on Segment 7EW, this QA Inspector discovered the following issues:

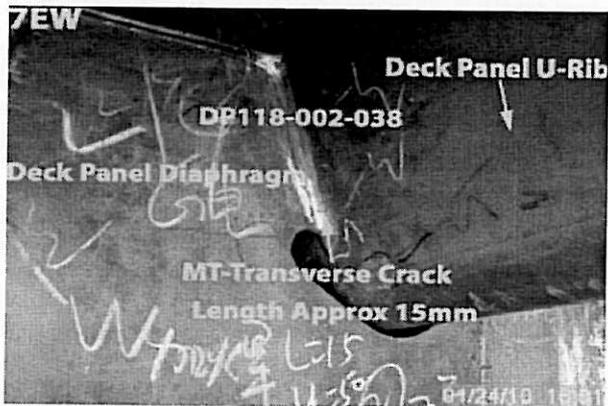
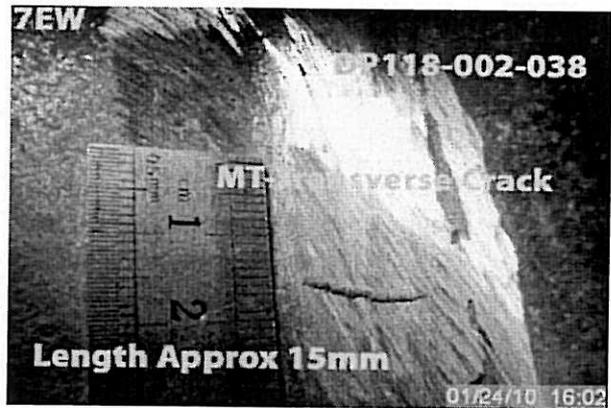
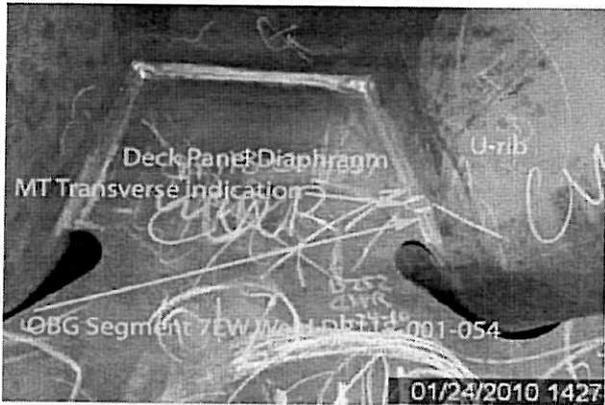
- Three (3) Transverse linear indications measuring approximately from 9 mm to 12 mm in length.
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- The material is 14mm thick.
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- The Notice of Witness Inspection Number (NWIT) is 005120.
- ZPMC Quality Control (QC) personnel have performed 100% Magnetic Particle Testing of these welds.

- One (1) Transverse linear indication measuring approximately 15mm in length.
- The weld is identified as: DP118-002-038 @ PP 059.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)

- This weld is a Complete Joint Penetration (CJP) Weld joining the Deck Panel U-Rib to Deck Panel Diaphragm.
- Y location is 180mm from the deck panel.
- The indication is clearly marked on the material near the weld.
- The Deck Panel U-Rib and Deck Panel Diaphragm are identified as Non SPCM.
- OBG segment 7EW is located outside north end of Bay 13 area.
- The Notice of Witness Inspection Number (NWIT) is 005120. The indication is located inside an area that has been previously tested by ZPMC Quality Control (QC) personnel. Per contract documents ZPMC is required to perform 100% Magnetic particle Testing (MT) of this weld.



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Applicable reference:

AWS D1.5-2002, Section 6, Table 6.3 specifies a class A indication as having a dBs rating of +10 and lower for weld thicknesses 8mm through 20mm.

Special Provisions Section 8.3: "Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents."

AWS D1.5 2002, Section 6.26.2 – "Welds that are subject to MT in addition to visual inspection shall have no cracks.

Who discovered the problem: Chandra Sudalaimuthu, Larry Viars, Vibin Kumar S.

Name of individual from Contractor notified: Wei Jian Bo

Time and method of notification: 1730 hours, 1/24/10, Verbal

Name of Caltrans Engineer notified: Bill Howe, Ching Chao

Time and method of notification: 1330 hours, 1/25/10, Email

QC Inspector's Name: Zhang Wei, Wang Wei Ming

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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By: Tsang, Eric SMR

Reviewed By: Wahbeh, Mazen SMR



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-18583R1 DATE日期 2010.01.31 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: DP118A/DP280 7EW DECK PLATE SPLICE 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, 2010

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

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-X 12mm

WELDING PROCESS 焊接方法: SMAW 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			
DP118A-002-068	1R1			ACC.		
DP280-001-054	1R1			ACC.		

AFTER B-CWR1181

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EXAMINED BY主探 Sun Gongchang <i>SUN Gongchang</i> 20/0.01.31	REVIEWED BY审核 <i>SUN</i> 20/0.01.31
LEVEL - II SIGN 签名 / DATE日期 质量经理 / QCM	LEVEL-II SIGN / DATE日期 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 B787-MT-18574R1 DATE日期 2010.01.31 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: DP118A CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4
7EW DECK PLATE SPLICE

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: B310S SERIAL NO. 连续编号: 5395 5617 5620

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-X
 CASTING 铸件 12mm
 FORGING 锻造

WELDING PROCESS 焊接方法: SMAW 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			

DP118A-001-054	1R1			ACC.		
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AFTER B-CWR1179

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EXAMINED BY主探: Sun Gongchang REVIEWED BY审核: SU Wei 2010.01.31

LEVEL - II SIGN 签名 / DATE日期: 质量经理 / QCM 用户CUSTOMER 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-000674**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 25-May-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0621**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component:
Procedural	Procedural	Description:	

Date the Non-Conformance Report was written: 24-Jan-2010**Description of Non-Conformance:**

During the Quality Assurance (QA) Ultrasonic Testing (UT) review of welds located on Segment 7EW, this QA Inspector discovered the following:

- One (1) Class "A" indication measuring approximately 20 mm in length.
- The dBs rating is +2.
- The material thickness is 14mm.
- The weld is identified as SEG041*-006.
- The weld is a Complete Joint Penetration (CJP) butt weld joining Deck Plate DP226A to DP253A.
- This weld joint is designated as Non Seismic performance critical weld member (Non SPCM).
- The Notice of Witness Inspection Number (NWIT) is 005120. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld.

During the QA Magnetic Particle Testing (MT) review of welds located on Segment 7EW, this QA Inspector discovered the following issues:

- Three (3) Transverse linear indications measuring approximately from 9 mm to 12 mm in length.
- The welds are identified as: DP280-001-056 (9mm in length Y = 175mm), DP118-002-070 (12mm in length Y = 190mm) and DP118-001-054 (12mm in length Y = 200mm) @ Panel Point (PP)-060.
- The material is 14mm thick.
- These welds are Complete Joint Penetration welds joining the U-rib to the deck panel diaphragm.
- The Notice of Witness Inspection Number (NWIT) is 005120.
- ZPMC Quality Control (QC) personnel have performed 100% Magnetic Particle Testing of these welds.

- One (1) Transverse linear indication measuring approximately 15mm in length.
- The weld is identified as: DP118-002-038 @ PP 059.
- This weld is a Complete Joint Penetration (CJP) Weld joining the Deck Panel U-Rib to Deck Panel

