

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-000274**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 20-May-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0248**Type of problem:****Welding****Concrete****Other****Welding****Curing****Procedural****Bridge No:** 34-0006**Joint fit-up****Coating****Other****Component:** OBG Segments 2AW, 2BW**Procedural****Procedural****Description:****Reference Description:** Welding Wet Material, OBG Segment Slice 2AW/2BW**Description of Non-Conformance:**

Caltrans Quality Assurance (QA) Inspector observed ZPMC welding personnel perform SMAW welding on SPCM material while the material was wet. The weld joint is identified as OBW2-005(segment splice 2AW-2BW).

**Applicable reference:**

- 1) AWS D1.5 2002 section 3, paragraph 3.1.3 "Welding shall not be done when the surfaces are wet or exposed to rain.
- 2) AWS D1.5 2002 section 3, paragraph 3.2.1 "Surfaces to be welded and surfaces adjacent to a weld shall also be free from moisture that would prevent proper welding.

Who discovered the problem: Dhanasingh Sukanthan**Name of individual from Contractor notified:** Kevin Chen**Time and method of notification:** 1600 hours, 05-20-09, Verbal**Name of Caltrans Engineer notified:** Stanley Ku

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Time and method of notification: 0730 hours, 05-22-09, Verbal

QC Inspector's Name: Wu Zhi Cheng

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 Eric Tsang, +(86) 1500.042.2372, who represents the Office of Structural Materials for your project.

Inspected By:	Guest,Skylar	SMR
----------------------	--------------	-----

Reviewed By:	Wahbeh,Mazen	SMR
---------------------	--------------	-----



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
666 Feng Bin Road Room 708, Changxing Island
Shanghai 201913 PR China
Tel: 021-56856666 ext 207061 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

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

Date: 25-May-2009

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: 05.03.06-000239

Subject: NCR No. ZPMC-0248

Reference Description: Welding Wet Material, OBG Segment Slice 2AW/2BW

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:**

Remarks:

Caltrans Quality Assurance (QA) Inspector observed ZPMC welding personnel perform SMAW welding on SPCM material while the material was wet. The weld joint is identified as OBW2-005(segment splice 2AW-2BW).

Action Required and/or Action Taken:

A response for the resolution of this issue is expected within 14 days.

Transmitted by: Stanley Ku Sr. Bridge Engineer

Attachments: ZPMC-0248

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Brian Boal, Doug Coe, Jason Tom, 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: 05.03.06-000239

Subject: NCR No. ZPMC-0248

Dated: 22-Jun-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000243 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: ABF QCM has instructed ZPMC Q/A/QC that while monitoring welding operations to check both sides of the material and noted the code requirement of paragraph 3.1.3.

ABF QCM has instructed ZPMC Q/A/QC that while monitoring welding operations to check both sides of the material and noted the code requirement of paragraph 3.1.3. Work in the trial assembly yard can be exposed to inclement weather conditions and as such, Q/A/QC as well as production must be cognizant of this fact. ABF QCM has also instructed ZPMC that although the welding can be performed from the inside of an OBG segment, the steel on the other side cannot be exposed to water as it will have a quenching affect. ZPMC will provide the inspection documentation for this weld at a later date for close out.

Submitted by:

Attachment(s): ABF-NPR-000243R00

Caltrans' comments:

Status: REJ

Date: 25-Jun-2009

The proposed resolution is not acceptable. In the areas that were welded while wet, the welds shall be removed and re-welded.

Please provide documentation of the weld removal, and provide inspection documents for the welds after they have been re-welded. The Department will review the Contractor's proposal to close Non-Conformance ZPMC-0248 at that time.

Submitted by: Wright, Doug

Date: 25-Jun-2009

Attachment(s):

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000239

Subject: NCR No. ZPMC-0248

Dated: 03-Aug-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000243 **Rev:** 01

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has responded to this NCR and has attached documents as evidence of completion. ZPMC requests closure of this NCR.

ZPMC has responded to this NCR and has attached documents as evidence of completion. ZPMC requests closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000243R01;

Caltrans' comments:

Status: CLO

Date: 24-Aug-2009

The proposed resolution is acceptable. The Department concurs that Non-Conformance ZPMC-0248 is closed.

Submitted by: Wright, Doug

Date: 24-Aug-2009

Attachment(s):



Nonconformance Report

不符合项报告

Project Name: S.F.O.B.B
 项目名称: 美国加州海湾大桥
 NCR Number: NCR-B-156(NCR-000274)
 NCR 编号:

Item: welding Wet Material
 名称描述:
 Item Number: 件号: NA
 Drawing: 图号: 2AW+2BW

Location: 位置: 总拼外场
 Date: 日期: 2009-6-1

Description of Nonconformance:
 不符合项状态描述:
 Caltrans Quality Assurance Inspector observed ZPMC welding personnel perform SMAW welding on SPCM material while the material was wet. The weld joint is identified as OBW2-005(segment splice 2AW+2BW).
 加州检验员发现 ZPMC 在潮湿的坡口表面使用手工焊烧焊接, 焊缝编号是: OBW2-005(2AW+2BW).
 Work By: Xia fa Lin 01.6.5
 施工方: 准备: 01.6.1
 Prepared by: Wayne
 Reviewed by QCE: Zhao Shuangbao
 质量工程师批准:
 Drawing Error 图纸错误
 Material Defect 材料缺陷
 Fabrication Error 制作错误
 Other 其他原因 6-2

Disposition: Use as is 回用
 Repair 返修
 Reject 拒收
 处理措施:

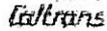
Recommendation:
 建议: 加强对施工队的管理和监控, 严格按照 WPS 要求进行焊接
 Enhance management and supervision and perform according to WPS requirement.
 Prepared by: Du Weibing
 准备
 Approved by QCA: _____
 质量经理批准

Reason for Nonconformance:
 不符合原因:
 由于坡口表面潮湿没有烘干使用手工焊焊接。
 The groove surface was wet, and didn't dry before welding.
 预防措施:
 加强现场监控或检查。
 Enhance supervision and inspection on-site.
 Approved by/批准: Gao JUN 01.6.5

Technical Justification for Use-As-Is/Repair: Attachment 附件
 Non-attachment 无附件
 回用或返修的技术依据:
 Reviewed /批准: 加强现场的管理, 提高现场焊接的检查力度
 Enhance management on-site to improve inspection strength.

Verification: Acceptable 可接受
 Unacceptable 不可接受
 确认:

Verified by QCI/质检确认: _____ Reviewed by QCA/质检主任审核: _____



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: 25-May-2009

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: 05.03.06-000239

Subject: NCR No. ZPMC-0248

Reference Description: Welding Wet Material, OBG Segment Slice 2AW/2BW

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:

Remarks:

Caltrans Quality Assurance (QA) Inspector observed ZPMC welding personnel perform SMAW welding on SPCM material while the material was wet. The weld joint is identified as OBW2-005(segment splice 2AW-2BW).

Action Required and/or Action Taken:

A response for the resolution of this issue is expected within 14 days.

Transmitted by: Stanley Ku Sr. Bridge Engineer

Attachments: ZPMC-0248

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Brian Boal, Doug Coe, Jason Tom, Ching Chao

File: 05.03.06

05.03.06-000239,NCT

Received

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

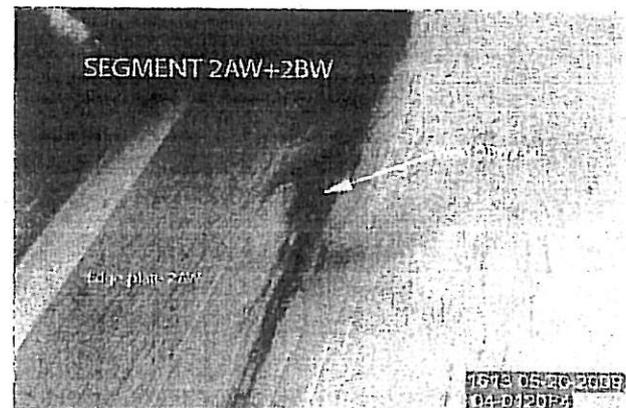
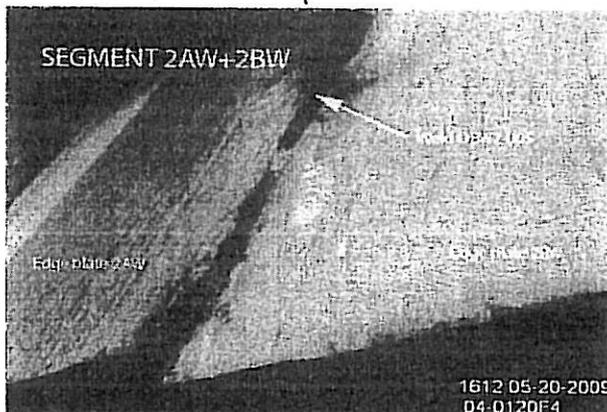
Office of Structural Materials

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-000274**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 20-May-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0248**Type of problem:**Welding Concrete Other Welding Curing Procedural **Bridge No:** 34-0006Joint fit-up Coating Other **Component:** OBG Segments 2AW, 2BWProcedural Procedural Description:**Reference Description:** Welding Wet Material, OBG Segment Slice 2AW/2BW**Description of Non-Conformance:**

Caltrans Quality Assurance (QA) Inspector observed ZPMC welding personnel perform SMAW welding on SPCM material while the material was wet. The weld joint is identified as OBW2-005(segment splice 2AW-2BW).

**Applicable reference:**

- 1) AWS D1.5 2002 section 3, paragraph 3.1.3 "Welding shall not be done when the surfaces are wet or exposed to rain.
- 2) AWS D1.5 2002 section 3, paragraph 3.2.1 "Surfaces to be welded and surfaces adjacent to a weld shall also be free from moisture that would prevent proper welding.

Who discovered the problem: Dhanasingh Sukanthan**Name of individual from Contractor notified:** Kevin Chen**Time and method of notification:** 1600 hours, 05-20-09, Verbal**Name of Caltrans Engineer notified:** Stanley Ku

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Time and method of notification: 0730 hours, 05-22-09, Verbal

QC Inspector's Name: Wu Zhi Cheng

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 Eric Tsang, +(86) 1500.042.2372, who represents the Office of Structural Materials for your project.

Inspected By:	Guest,Skylar	SMR
----------------------	--------------	-----

Reviewed By:	Wahbeh,Mazen	SMR
---------------------	--------------	-----



周数 82
日期 2009.05.28

Visual Weld Inspection Report

报告 焊缝目视检查

Girder/梁: OBG Plate Panel Splice

Tower/塔: N/A

Caltrans Contract No. 加州合同编号: 04-0120F4

Project No.: 项目名称: San Francisco Oakland Bay Bridge 美国海湾大桥

Project No.: 项目编号: ZP06-787

Quality Control Representative: 质检代表: Wang Lu Wu Shitobang

CWI: 检验员: 0802175

Quality Assurance Manager ~Approval 质量控制经理: Lu Jianhua

Weld No. 焊缝编号	Welder I.D.# 焊工识别号	Location 位置	Welding consumables 焊接材料	Undercut 咬边	Porosity 气孔	Over lap 焊瘤	Crater 弧坑	Arc strike 电弧擦伤	Spatters 飞溅	Crack 裂纹	Accept or Reject 接受或拒收	Repair 返修	Accept or Reject after repair 修后接受或拒收
OBW2-001	04861	3G+4G	THJ506Fe-1(Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
OBW2-002	054458 049804 220069 220063	1G	supercore71H(Φ1.4) JW-3(Φ4.8)	√	√	√	√	√	√	√	ACC	NA	NA
OBW2-003	054458 049804 220069 220063	1G	supercore71H(Φ1.4) JW-3(Φ4.8)	√	√	√	√	√	√	√	ACC	NA	NA
OBW2-004	054458 049804 220069 220063	1G	supercore71H(Φ1.4) JW-3(Φ4.8)	√	√	√	√	√	√	√	ACC	NA	NA
OBW2-005	04861	3G+4G	THJ506Fe-1(Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
OBW2A-001	220069 220067	3G	supercore71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA

After cover pass

After HSR No.:

Others

#R787-QCP-603

"√" is no defects. "X" is defects. "NA" is not applicable.

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-000349**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 30-Nov-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0248**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: 20-May-2009**Description of Non-Conformance:**

Caltrans Quality Assurance (QA) Inspector observed ZPMC welding personnel perform SMAW welding on SPCM material while the material was wet. The weld joint is identified as OBW2-005(segment splice 2AW-2BW).

Contractor's proposal to correct the problem:

Submit required NDT reports verifying the weld in question is in conformance with Contract requirements.

Corrective action taken:

ZPMC has submitted the required documentation verifying the weld is in conformance and has enhanced on-site supervision of welders.

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, who represents the Office of Structural Materials for your project.

Inspected By: Simonis, Jim

Quality Assurance Inspector

Reviewed By: Wahbeh, Mazen

QA Reviewer