

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-000557

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 22-Dec-2009

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

NCR #: ZPMC-0530

Type of problem:

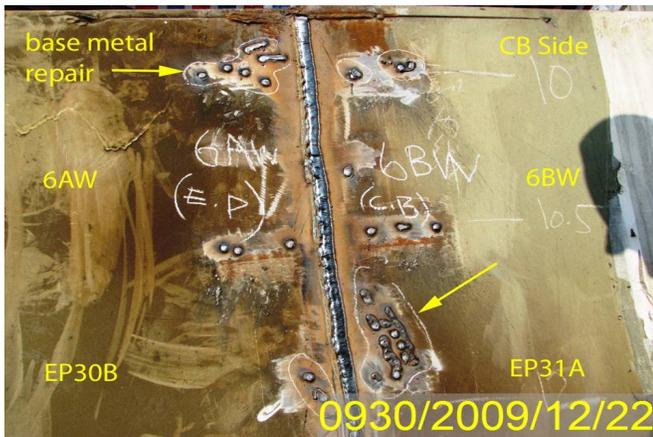
Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: OBG Lift 6 West
Procedural	Procedural	Description:	

Reference Description: Base Metal Repairs without Engineer's Approval, L6W

Description of Non-Conformance:

During a random in-process visual inspection at Segments 6AW+6BW, weld joint number #OBW6-005, Edge Plate (EP) (cross beam side), temporary attachment removal areas, this Caltrans Quality Assurance (QA) Inspector observed base metal repairs on EP's without prior approval of the Engineer.

- 1) The Edge Plates were identified as: EP31A and EP30B
- 2) The un-approved base metal repairs were located between PP40 and PP41 on the Cross Beam side.
- 3) These base metal repairs were caused by removal of temporary attachments.
- 4) ZPMC performed base metal repairs without the prior approval of the Engineer.
- 5) EP 30B is SPCM material and falls under Section 12 of the AWS D1.5, 2002 code.



Applicable reference:

Standard Specifications (99) section 8-3.01: "The Engineer shall be notified immediately in writing when welding problems, deficiencies, base metal repairs, or any other type of repairs not submitted in the WQCP are

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

discovered and also of the proposed repair procedures to correct them. For requests to perform repairs, The contractor shall include an engineering evaluation of the proposed repair.”

ZPMC Welding Quality Control Plan, Section 9.2.1.2: “Prior approval of the Engineer shall be obtained for repairs to base metal other than what was identified in Section 9.2.1.1 of this manual and the repair of all other cracks.”

AWS D1.5/2002, Section 3.7.4: “Prior approval of the Engineer shall be obtained for repairs to base metal.”

AWS D1.5/2002, Section 12.13.1.1 “All tack welds used in assembly shall be located within the joint unless otherwise approved by the Engineer.”

Who discovered the problem: Joe Alaniz

Name of individual from Contractor notified: Zhang Xiao Lin

Time and method of notification: 1500 hours, 12-22-09, Verbal

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 1530 hours, 12-23-09, 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, 15000422372, 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

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: 25-Dec-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: 05.03.06-000518

Subject: NCR No. ZPMC-0530

Reference Description: Base Metal Repairs without Engineer's Approval, L6W

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 a random in-process visual inspection at Segments 6AW+6BW, weld joint number #OBW6-005, Edge Plate (EP) (cross beam side), temporary attachment removal areas, this Caltrans Quality Assurance (QA) Inspector observed base metal repairs on EP's without prior approval of the Engineer.

- 1) The Edge Plates were identified as: EP31A and EP30B
- 2) The un-approved base metal repairs were located between PP40 and PP41 on the Cross Beam side.
- 3) These base metal repairs were cause by removal of temporary attachments.
- 4) ZPMC performed base metal repairs without the prior approval of the Engineer.
- 5) EP 30B is SPCM material and falls under Section 12 of the AWS D1.5, 2002 code.

Action Required and/or Action Taken:

For subsequent base metal repairs, notify the engineer prior to starting the work and provide weld test data to the engineer. A response for the resolution of this issue is expected within 7 days.

Transmitted by: Bill Howe

Attachments: ZPMC-0530

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: 05.03.06-000518

Subject: NCR No. ZPMC-0530

Dated: 08-Feb-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000551 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has held internal training with the CWIs and production regaining base metal repairs without Engineer approval. NDT of base metal repaired areas will be provided when available.

ZPMC has held internal training with the CWIs and production regaining base metal repairs without Engineer approval. Attached is the meeting minutes of the ZPMC meeting that was held on 1/28/2010. NDT of base metal repaired areas will be provided when available, based on this ZPMC requests this proposal be accepted with action pending.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000551R00;

Caltrans' comments:

Status: AAP

Date: 08-Feb-2010

In order to accept approved action pending status it is understood that the word "regaining" above should read "regarding".

Submitted by: Howe, Bill

Date: 08-Feb-2010

Attachment(s):

会议签到单

会议时间： 2010-1-28 12: 40

会议地点： OBG 拼装会议室

会议主题： 关于返修过程中无报告及人员问题

与会人员（签到）：

CWI:

朱忠海 耿伟 李勤华 李强

施工队 电焊带班:

刘立军
樊汉强
冯石强
李强

会议签到单

会议时间：2010.01.28.

会议地点：OBG 会议室

会议主题：关于OBG拼装返修和修补过程中无报告及人员问题

与会人员（签到）：

武高	王河	王科	钟国祥
李伟	郭伟	张强	李伟
陈军	王明	周亦	陈平
莫春辉	李杰		李平

会议记录

会议时间：2010.01.28 12: 40

会议地点：OBG 拼装会议室

会议主题：关于 OBG 拼装返修和修补过程中无报告及人员问题

会议内容纲要：

问题：

1. 返修过程中没有返修报告
2. 施工队焊接过程中没有 CWI 现场确认
3. 施工队焊接过程中没有 QC 人员在现场监控
4. 返修没有按照 WPS 上面要求预热和焊接
5. 焊工焊接位置不正确

对于上述问题我们的解决方案：

- 1、 返修过程中没有返修报告：如返修要进行焊接的都要开具返修报告，分一般返修和关键返修报告。一般返修报告先由探伤或 CWI 开具手写版，上面要写清楚是缺陷名称，缺陷的长度和大小，图号及焊缝编号都要写清楚，并签字。再由 CWI 人员签写所选用的 WPS，并签字。施工队工人拿到手写版的一般返修报告才能进行返修，在返修时必须要有 CWI 或 QC 人员在现场才能进行工作，返修过程中所使用的 WPS 必须在现场，并且按照 WPS 上面所要求的预热及其他参数进行，现场 CWI 人员要对返修过程中预热、所选取的电流电压进行测量并记录数据，完全按照 WPS 上面的要求执行。同时按照手写的一般返修报告由文档人员开具正式的返修报告，生产工艺确认后由质检经理签字后下方施工队和质检。发现缺陷超出一般返修成为关键返修时，施工人员应停止次项工作，由探伤或 CWI 人员记录好缺陷位置、长度、大小、焊缝和钢板编号，开具关键返修报告提交文档室。文档人员拿到报

告后由生产部门写明缺陷产生的原因及以后的预防措施，再由工艺人员写清楚返修程序注意事项及所选用的 WPS，在由文档人员提交监理进行审批，审批结束后由文档人员下发到车间和现场质检。拿到关键返修报告后施工人员要在 CWI 和监控下进行返修，返修要严格按照返修报告上面及 WPS 上面的要求执行。施工队和质检要严格按照返修程序进行返修，禁止没有报告进行返修，对于没有报告返修者我们要对施工队及个人进行经济处罚。

2、 施工队焊接过程中没有 CWI 人员在现场：WQCP 上面要求 CWI 人员每半个小时在现场监控一次，以免在施工过程中能及时发现问题，并解决问题。但是我们近期出现长时间没有 CWI 人员在现场进行检查，这是我们 CWI 人员的失职。现在我们的 CWI 人员必须严格要求自己，按照质量控制计划上面的要求，至少每半个小时到一个焊接工位一次，并检查施工过程中是否存在违反要求的问题。施工队人员在施工之前必须通知质检人员，不允许存在没有 CWI 进行施工的存在，CWI 必须和施工人员协调和工作计划。施工人员在在通知 CWI 施工前必须做好准备工作，CWI 必须对施工前准备工作进行检查，施工过程中要进行检查，检查施工人员是否按照 WPS 上面及 WQCP 上面的要求执行，施工人员必须正确的接受 CWI 人员的检查，焊接结束后要对焊缝程序进行检查。要做到焊前、焊中及焊后 3 方面检查。

3、 施工队焊接过程中没有 QC 人员在现场监控：施工过程中 QC 人员必须在现场进行监控，QC 人员必须要对自己所监控的范围负责，不允许出现任何违反质量控制计划的事情出现。对于现场 QC 来说，应当随时监控现场的施工动态，对焊接过程中所使用的焊接参数进行记录、焊工进行核实编号、是否使用正确的 WPS、所处的环境是否适合焊接、焊机是否是经过鉴定过的、焊材是否是处于保温状态等很多方面进行监控的，所以说 QC 这个位置是非常重要的。对于发现问题能及时按照要求进行解决的要及时解决，对于不能解决的可以及时反馈 CWI 人员进行解决，施工人员必须配合 QC 的工作。加入没有 QC 在现场监控，施工过程中的问题就不

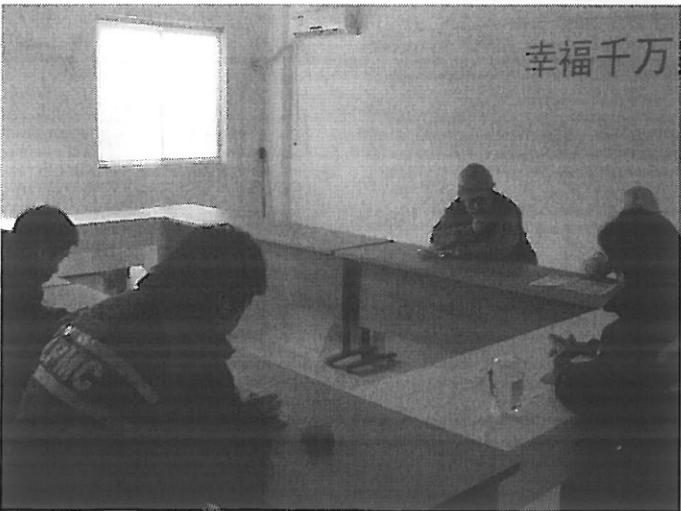
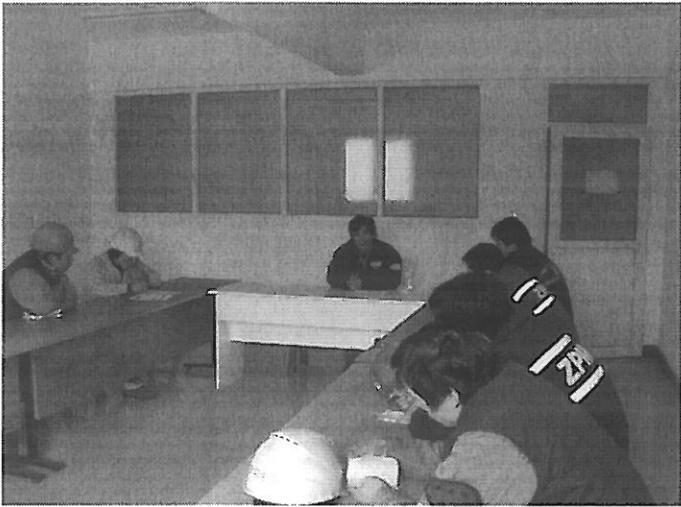
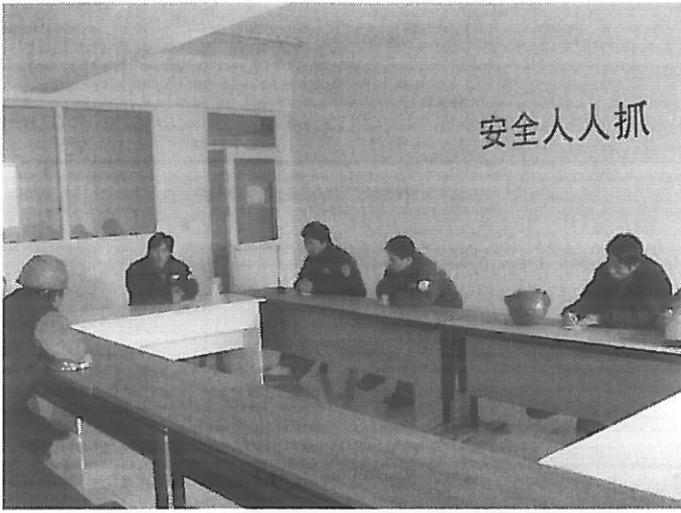
能及时解决和及时反馈，施工人员就会视问题而不见。施工人员有责任通知 QC 人员发现问题，对于开始焊接之前必须通知 QC 进行监控，QC 也要主动配合施工，QC 要时刻在现场监控，对于如特殊原因要求离开的需让别人代替，坚决不允许出现没有 QC 人员在现场监控。

4、返修没有按照 WPS 上面要求预热和焊接：WPS 上面的参数都是经过试验得出来的结论，所以要严格按照 WPS 上面的要求执行。就如预热：预热可以使焊接位置周围的水分消失，减少了影响焊接过程中的氢，氢在焊缝中容易造成裂纹的出现，为什么我们在焊接重要位置的时候经常采用低氢焊条，就是减少焊缝中的氢含量，减少裂纹和的出现，所以说焊前预热是很重要的，WPS 里面的参数是能够焊出合格焊缝的依据，没有 WPS 或没有按照 WPS 焊接的焊缝就是不合格的焊缝。WPS 必须贴到施工现场，以便及时查阅，以后对于没有按照 WPS 焊接的焊缝我们要求刨除焊缝，并对焊工进行处罚，严重的取消在美国钢桥上面工作的资格，没收焊工证。

5、焊工焊接位置不正确：焊工证都是经过权威机构认可的证明。对于焊接位置不正确的问题也视为没有焊工证，在施工前现场检验员要检查焊工的焊工证，检查焊工的发证机构、焊接的位置及焊工的编号，焊工只能焊接焊工证上面要求的位置，没有要求的位置焊工不能焊接，检验员要严格控制。焊工必须主动配合质检的检查，不允许能虚作假，如发现焊接与焊工证位置不同的焊工要进行经济处罚，严重的取消焊接资格。

OBG 拼装质检室

2010-1-28



NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000518

Subject: NCR No. ZPMC-0530

Dated: 15-Mar-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000551 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has is providing the CWR used at the time of repair as well as NDT documentation to show that the base metal is free of defect subsequent to the repair.

ZPMC has is providing the CWR used at the time of repair as well as NDT documentation to show that the base metal is free of defect subsequent to the repair. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000551R01;

Caltrans' comments:

Status: CLO

Date: 18-Mar-2010

The documentation received is sufficient to close this NCR.

Submitted by: Howe, Bill

Date: 18-Mar-2010

Attachment(s):



No. B-668

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-3-15

REGARDING: NCR-000557(ZPMC-0530)

The damaged base metal where temporary attachments were removed at 6AW/6BW edge plate splice have been repaired and is now acceptable and has been removed from the punchlist. ZPMC is providing the CWR and NDT records to show that the repaired areas are acceptable. ZPMC QA has instructed the requirement of WRRs/CWRs to be prepared on site during the base metal repair to ZPMC QC/CWI personnel. Based on this ZPMC requests closure of this NCR.

ATTACHMENT:

NCR-000557(ZPMC-0530)

NCR-B-346(ZPMC-0530)

B-CWR1098

B787-MT-19927

B787-MT-19928

B787-MT-19150

John

3/15/10



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: 25-Dec-2009

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-0530

Job Name: SAS Superstructure
 Document No: 05.03.06-000518

Reference Description: Base Metal Repairs without Engineer's Approval, L6W

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 a random in-process visual inspection at Segments 6AW-6BW, weld joint number #OBW6-005. Edge Plate (EP) (cross beam side), temporary attachment removal areas, this Caltrans Quality Assurance (QA) Inspector observed base metal repairs on EP's without prior approval of the Engineer.

- 1) The Edge Plates were identified as: EP31A and EP30B
- 2) The un-approved base metal repairs were located between PP40 and PP41 on the Cross Beam side.
- 3) These base metal repairs were caused by removal of temporary attachments.
- 4) ZPMC performed base metal repairs without the prior approval of the Engineer.
- 5) EP 30B is SPCM material and falls under Section 12 of the AWS D1.5, 2002 code.

Action Required and/or Action Taken:

For subsequent base metal repairs, notify the engineer prior to starting the work and provide weld test data to the engineer. A response for the resolution of this issue is expected within 7 days.

Transmitted by: Bill Howe

Attachments: ZPMC-0530

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

Contract #: 04-0120F4
City: 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-000557

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 22-Dec-2009

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

NCR #: ZPMC-0530

Type of problem:

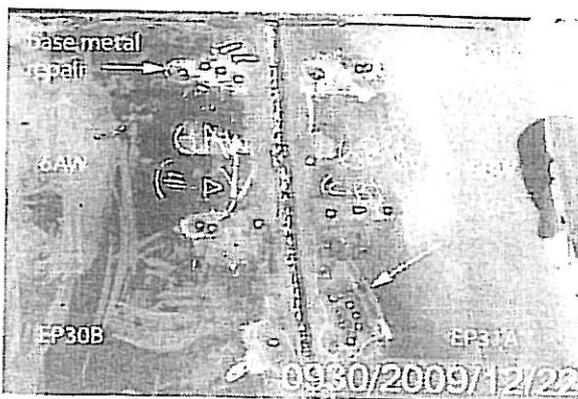
Welding Concrete Other
Welding Curing Procedural Bridge No: 34-0006
Joint fit-up Coating Other Component: OBG Lift 6 West
Procedural Procedural Description:

Reference Description: Base Metal Repairs without Engineer's Approval, L6W

Description of Non-Conformance:

During a random in-process visual inspection at Segments 6AW+6BW, weld joint number #OBW6-005, Edge Plate (EP) (cross beam side), temporary attachment removal areas, this Caltrans Quality Assurance (QA) Inspector observed base metal repairs on EP's without prior approval of the Engineer.

- 1) The Edge Plates were identified as: EP31A and EP30B
- 2) The un-approved base metal repairs were located between PP40 and PP41 on the Cross Beam side.
- 3) These base metal repairs were caused by removal of temporary attachments.
- 4) ZPMC performed base metal repairs without the prior approval of the Engineer.
- 5) EP 30B is SPCM material and falls under Section 12 of the AWS D1.5, 2002 code.



Applicable reference:

Standard Specifications (99) section 8-3.01: "The Engineer shall be notified immediately in writing when welding problems, deficiencies, base metal repairs, or any other type of repairs not submitted in the WQCP are

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 1 of 2)

discovered and also of the proposed repair procedures to correct them. For requests to perform repairs, The contractor shall include an engineering evaluation of the proposed repair."

ZPMC Welding Quality Control Plan, Section 9.2.1.2: "Prior approval of the Engineer shall be obtained for repairs to base metal other than what was identified in Section 9.2.1.1 of this manual and the repair of all other cracks."

AWS D1.5/2002, Section 3.7.4: "Prior approval of the Engineer shall be obtained for repairs to base metal."

AWS D1.5/2002, Section 12.13.1.1 "All tack welds used in assembly shall be located within the joint unless otherwise approved by the Engineer."

Who discovered the problem: Joe Alaniz
Name of individual from Contractor notified: Zhang Xiao Lin
Time and method of notification: 1500 hours, 12-22-09, Verbal
Name of Caltrans Engineer notified: Bill Howe
Time and method of notification: 1530 hours, 12-23-09, 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, 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Guest, Skyler	SMR
Reviewed By:	Wahbeh, Mazen	SMR



Nonconformance Report

不符合项报告

Project Name: 项目名称:	S.F.O.B.B 美国加州海湾大桥	NCR Number: NCR 编号:	NCR-B-346(ZPMC-0530)
Item: 名称描述:	MB repairing 母材返修未经批准	Item Number: 件号:	N/A
Location: 位置:	outside yard 外场	Date: 日期:	2009-12-30

Description of Nonconformance:

不符合项状态描述:

During a random in-process visual inspection at Segments 6AW+6BW, weld joint number#OBW6-005. Edge Plate(EP)(cross beam side), temporary attachment removal areas, this Caltrans Quality Assurance(QA) Inspector observed base metal repairs on EP's without prior approval of the Engineer.

- 1) The Edge Plate were identified as:EP31A and EP30B
- 2) The un-approved base metal repairs were located between PP40 and PP41 on the Cross Beam side.
- 3) These base metal repairs were cause by removal of temporary attachments.
- 4) ZPMC performed base metal repairs without the prior approval of the Engineer.
- 5) EP 30B is SPCM material and falls under Section 12 of the AWS D1.5, 2002 code.

加州检验员对箱梁 6AW 与 6BW 进行检验时发现, OBW6-005 腹板处临时构件移除后的母材返修未得到工程师的允许。

- 1) 腹板为: EP31A 和 EP30B
- 2) 涉及的不符合返修母材在 PP40 和 PP41 之间, 在联系横梁一侧。
- 3) 这是临时构件移除后的母材返修。
- 4) ZPMC 进行母材返修未得到工程师批准 → CWR 1098
- 5) EP30B 为 SPCM 材质, 符合 AWS D1.5 十二章标准。

Work By: 施工方: <i>Diafa Lin</i>	Prepared by: 准备:	Reviewed by QCE: 质量工程师批准: <i>Wu Shuangbao</i> 2009.12.30
<input type="checkbox"/> Drawing Error 图纸错误	<input type="checkbox"/> Material Defect 材料缺陷	<input type="checkbox"/> Fabrication Error 制作错误
<input type="checkbox"/> Other 其他原因		

Disposition: 处理措施:	<input type="checkbox"/> Use as is 回用	<input checked="" type="checkbox"/> Repair 返修	<input type="checkbox"/> Reject 拒收
-----------------------	--	--	---------------------------------------

Recommendation:

建议:

Prepared by: 准备	Approved by QCA: 质量经理批准
--------------------	----------------------------

Reason for Nonconformance:

不符合原因:

由于 0BW6-005 腹板处临时附件拆除后的焊缝
修复未得到工程师的允许。

After removing 0BW6-005 web plate temporary attachment,
repair base metal without engineer approved.

Prevention of Re-occurrence:

预防措施:

加强监控和检查。

Enhance supervision and inspection.

Approved by/批准: Gao Jun 01.01.07

Technical Justification for Use-As-Is/Repair: Attachment Non-attachment
回用或返修的技术依据: 附件 无附件

见返修报告 WR-9815

See WR-9815 (Repair Welding Report 9815)

Reviewed /批准: Tang Yongbo

Verification: Acceptable Unacceptable
确认: 可接受 不可接受

Jin Yong Jiam 07120671
24.3.12

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



关键焊缝返修报告

Critical Welding Repair Report (CWR)

版本
Rev. No.:

0

项目名称 Project Name:	美国海湾大桥 SFOBB	部件图号 Drawing No.:	OB6W(E)/OB7W(E)/C B5/CB6	报告编号 Report No.	B-CWR1098
合同号 Contract No.:	04-0120F4	部件名称 Item Name:	联系梁侧斜底板及腹板: CB5 及 CB6 顶板、底板、 腹板、隔板 Side plate and web plate CB5 and CB6 deck plate edge plate and floor beam	NDT 报告编 号 Report No. of NDT	NA
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述:

Description of Welding Discontinuity:

经检查发现西线 6AW+6BW/6BW+6CW/6CW+7AW 和东线 6AE+6BE/6BE+6CE/6CE+7AE 吊装段联系梁侧斜底板及腹板以及 CB5 及 CB6 顶板、底板、腹板、隔板马板去除后母材需修补。具体位置见下图所示:

After inspection west linear 6AW+6BW/6BW+6CW/6CW+7AW and east line 6AE+6BE/6BE+6CE/6CE+7AE lifting side plate and edge plate face strut plate, CB5 and CB6 deck plate, side plate, edge plate, floor beam attachment temporary, the base metal needed to repair

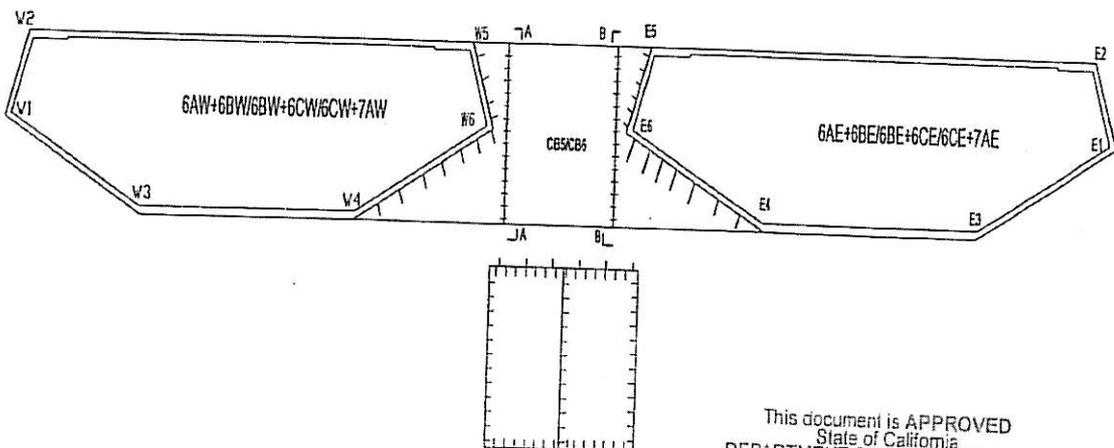
The detail sees the following draft.

检验员 (Inspector): *Wang zhu*
wang zhu

日期 (Date): 2010.01.13

焊缝返修位置示意图:

Draft of Welding Discontinuity:



This document is APPROVED
State of California
DEPARTMENT OF TRANSPORTATION
Pursuant to Section 5-1.02 of the
Standard Specifications
Initial *WZ* Date: 1/20/10

产生原因:

Cause:

工人操作失误, 导致母材损伤。

Worker operator error caused base metal gouged.

车间负责人 (Foreman): Ma Ruiquan

日期 (Date): 10.01.15

处理意见

Disposition:

1. QC和CWI在整个修补过程中都应在场并指导以确保返修按照处理意见以及AWS D1.5要求进行;
 2. 按照焊接返修工艺规程 (WPS) 打磨缺陷区域至光滑;
 3. 准备一个正确的接头形式, 具体参见返修的WPS;
 4. 在NDT检测前口头通知QA。对返修区域作100%MT和100%VT检查;
 5. 如果仍发现有缺陷, 通过打磨的方法去除所有缺陷以确认缺陷完全被消除, 并重复第四步以确认缺陷完全被消除;
 6. 将杂物以及MT检测遗留的残留物清理干净;
 7. 根据批准的焊接返修工艺规程 (WPS) 进行预热及焊接;
 8. 将焊接区域打磨至与母材平齐;
 9. 在NDT检测前口头通知QA。对返修区域作100%MT和100%VT检查。
1. QC and CWI should be present to witness the repair, direct and supervise all repair operations during this repair to ensure the repair is per the disposition requirements, and the AWS D1.5 code requirements.
 2. Grind the repair area to a smooth finish according to the approved repair WPS.
 3. Prepare the joint according to the approved WPS.
 4. Notify QA verbally prior to NDT. Perform 100%MT and 100%VT of the repair area.
 5. Remove all defects by grinding to ensure all defects are completely removed if defects still exist, and repeat "step 4" to assure complete removal of all defects if necessary.
 6. Clean the repair area of all loose debris including MT powder.
 7. Preheat and weld according to the approved WPS.
 8. Grind the weld flush after welding.
 9. Notify QA verbally prior NDT. Perform 100%MT and 100%VT of the repair area.

This document is APPROVED
State of California
DEPARTMENT OF TRANSPORTATION
Pursuant to Section 5-1.02 of the
Standard Specifications
Date 11/20/10

工艺:

Technical Engineer: Xu Donghai

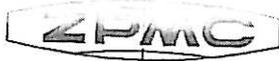
审核:

Approved By: Lu Jianting

日期:

Date: 10.01.18

#R787-QCP-900



关键焊缝返修报告

Critical Welding Repair Report (CWR)

版本
Rev. No.:

0

项目名称 Project Name:	美国海湾大桥 SFOBB	部件图号 Drawing	OB6W(E)/OB7W(E)/CB5/CB6	报告编号 Report No.	B-CWR1098
合同号 Contract No.:	04-0120F4	部件名称 Item Name:	联系梁侧斜底板及腹板; CB5及CB6顶板、底板、 腹板、隔板 Side plate and web plate CB5 and CB6 deck plate edge	NDT 报告 编号 Report No. of ND	NA
项目编号 Project No.:	ZP06-787				

纠正措施:

Corrective Action to Prevent Re-occurrence:

培训和教育操作工, 提高操作水平。

Train and educate operator to improve operation skill.

车间负责人 (Foreman):

Ma Ruiguan

日期 (Date): 10.01.15

参照的 WPS 编号
Repair WPS No.:

WPS-345-SMAW-1G(1F)
)-Repair
WPS-345-SMAW-1G(1F)
)-FCM-Repair
WPS-345-SMAW-2G(2F)
)-Repair
WPS-345-SMAW-2G(2F)
)-FCM-Repair
WPS-345-SMAW-3G(3F)
)-Repair
WPS-345-SMAW-3G(3F)
)-FCM-Repair
WPS-345-SMAW-4G(4F)
)-Repair
WPS-345-SMAW-4G(4F)
)-FCM-Repair

工艺员
Technologist:

Xu Dongkai

10.01.18

返修 (碳刨) 前预热温度
Preheat Temperature
Before Gouging:返修的缺陷
Description
of Discontinuity:焊前处理检查
Inspection
Before Welding:焊前预热温度
Preheat Temperature
Before Welding:最大碳刨深度
Max. Depth of Gouge:碳刨总长
Total Length of Gouge:

焊工

Welder:

焊接类型

Welding Type:

焊接位置

Position:

焊接电流

Current:

焊接电压

Voltage:

焊接速度

Speed:

返修后检查

Inspection After Repair:

外观检查

VT Result:

检验员

Inspector:

日期

Date:

NDT 复检

NDT Result:

探伤员

NDT Person:

日期

Date:

见证:

Witness/Review:

备注:

Remark:

#R787-QCP-900

This document is APPROVED
State of California
DEPARTMENT OF TRANSPORTATION
Pursuant to Section 5-1.02 of the
Standard Specifications
Initial Date: 1/20/10



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-19927		DATE日期 2010.03.07	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: EP30B/EP31A WEB PLATE		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. 28 ST , 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	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材,厚度	A709M-345F2 18/30 mm	
WELDING PROCESS 焊接方法	NA	TYPE OF JOINT 焊缝类型	NA	

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			
X109B				ACC.		after repaired
X111A				ACC.		after repaired

AFTER NCR-B-346

BLANK

EXAMINED BY 主探 Ding Acheng <i>Ding A cheng 2010.03.07</i> LEVEL - II SIGN 签名 / DATE日期 质量经理 / QCM	REVIEWED BY 审核 <i>SU Wei 2010.03.07</i> 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-19928		DATE日期 2010.03.07	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: EP30B/EP31A WEB PLATE		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. 28 ST , 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	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材,厚度	A709M-345F2 18/30 mm	
WELDING PROCESS 焊接方法	NA	TYPE OF JOINT 焊缝类型	NA	

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			
X109B				ACC.		after excavation
X111A				ACC.		after excavation

AFTER NCR-B-346

BLANK

EXAMINED BY主操 Ding Acheng LEVEL - II SIGN 签名 / DATE日期 质量经理 / QCM	REVIEWED BY 审核 S. V. Wei LEVEL-II SIGN / DATE日期 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



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-000549**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 18-Mar-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0530**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: 22-Dec-2009**Description of Non-Conformance:**

During a random in-process visual inspection at Segments 6AW+6BW, weld joint number #OBW6-005, Edge Plate (EP) (cross beam side), temporary attachment removal areas, this Caltrans Quality Assurance (QA) Inspector observed base metal repairs on EP's without prior approval of the Engineer.

- 1) The Edge Plates were identified as: EP31A and EP30B
- 2) The un-approved base metal repairs were located between PP40 and PP41 on the Cross Beam side.
- 3) These base metal repairs were caused by removal of temporary attachments.
- 4) ZPMC performed base metal repairs without the prior approval of the Engineer.
- 5) EP 30B is SPCM material and falls under Section 12 of the AWS D1.5, 2002 code.

Contractor's proposal to correct the problem:

Submit CWR for additional base metal repairs required and perform NDT required to verify weld quality.

Corrective action taken:

Contractor submitted CWR for additional base metal repairs to be performed along with NDT reports verifying the repairs at said locations are in conformance with contract specifications.

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.

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Inspected By: Simonis,Jim

Quality Assurance Inspector

Reviewed By: Wahbeh,Mazen

QA Reviewer