

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



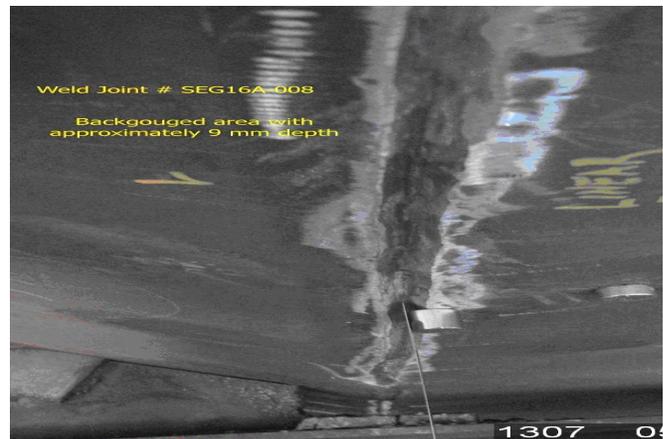
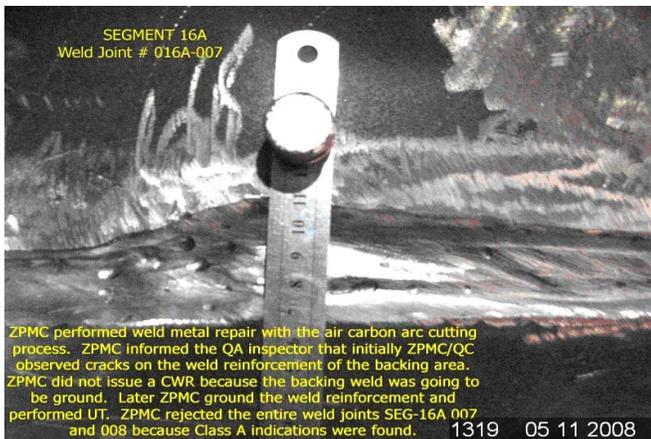
Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, PRC**Report No:** NCR-000131**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 11-May-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0125**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: SEG-016A
Procedural	Procedural	Descriptor:	OBG Segment Assembly

Reference Description: Repairs of Cracks without Engineer Approval**Description of Non-Conformance:**

The Contractor repaired cracks in welds without prior Engineer approval. This occurred on repair of cracks that were identified by QC visual examination on weld joint #s -007 and -008 of segment SEG-016A, which were welds performed with ceramic backing.

**Applicable reference:**

Special Provisions, Section 8 3 Welding (p. 154): "all repairs of cracks require prior approval of the Engineer".

Who discovered the problem: QA Inspector Alfredo Acuna**Name of individual from Contractor notified:** ABFJV QC Inspector Don Watson**Time and method of notification:** 5-11-2008**Name of Caltrans Engineer notified:** Stanley Ku**Time and method of notification:** 05-16-2008, 10:15 via telephone**QC Inspector's Name:** ZPMC QC Inspector Shen Xu Jun**Was QC Inspector aware of the problem:**

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

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 Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

Inspected By:	Lowry,Patrick	SMR
Reviewed By:	Lowry,Patrick	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: 19-May-2008

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

Dear: Mr. Charles Kanapicki

Job Name: SAS Superstructure

Attention: Mr. Dave Williams Consultant

Document No: 05.03.06-000106

Subject: NCR No. ZPMC-0125

Reference Description: Repairs of Cracks without Engineer Approval

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:

The Contractor repaired cracks in welds without prior Engineer approval. This occurred on repair of cracks that were identified by QC visual examination on weld joint #s -007 and -008 of segment SEG-016A, which were welds performed with ceramic backing.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences.

Transmitted by: Stanley Ku Sr. Bridge Engineer

Attachments: ZPMC-0125

cc: Rick Morrow, Gary Pursell, Brian Boal, 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: 05.03.06-000106

Subject: NCR No. ZPMC-0125

Dated: 10-Sep-2008

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000126 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC performed excavation of cracks prior to engineers approval under the impression that excavating is not part of the repair process.

ZPMC performed excavation of cracks prior to engineers approval under the impression that excavating is not part of the repair process. It was communicated that excavating a defect is part of the repair process. On 9 September 2008, CT is allowing excavating of Critical Weld Repairs without a CWVR as long as the CT inspector is notified to monitor the excavation.

Submitted by:

Attachment(s): ABF-NPR-000126R00

Caltrans' comments:

Status: AAP

Date: 01-Oct-2008

The response is acceptable, but the Non-Conformance is not closed.

Please provide documentation of the weld repairs that were performed and that the repairs were acceptable. The Department will review the Contractor's proposal to close Non-Conformance ZPMC-0125 at that time.

Submitted by: Wright, Doug

Date: 01-Oct-2008

Attachment(s):

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000106

Subject: NCR No. ZPMC-0125

Dated: 03-Dec-2008

Contract No.: 04-0120F 4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000126 **Rev:** 01

Contractor's Proposed Resolution:

Reference Resolution: ZPMC requests closure of this NCR based on attached documents
ZPMC has attached documentation as requested. ZPMC requests closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000126R01; required documents to close this NCR

Caltrans' comments:

Status: CLO

Date: 14-Dec-2008

The proposed resolution is acceptable. An internal NCR was written, and the welds in question were accepted as shown on the attached NDT reports. The Department concurs that Non-Conformance ZPMC-0125 is closed.

Submitted by: Wright, Doug

Date: 15-Dec-2008

Attachment(s):



TRANSMITTAL LETTER

PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 12/01/2008

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: CALTRANS NCR FOR CLOSURE

SUBMITTED FOR YOUR APPROVAL.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE WITH NO.B-319 FOR CLOSURE.
- (2) COPY OF NCR WITH NUMBER NCR-000131(ZPMC-0125).
- (3) COPY OF FINAL VISUAL INSPECTION REPORT
- (4) COPY OF THE COMPLETE UT REPORT

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:

Rosemary
PLAN HOLDER

Dec 1st, 2008 10:32am
DATE

ABFJV
COMPANY

PHONE NO.

PLAN NUMBER: N/A
#R787-QCP-102



No. B-319

LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2008-12-1

REGARDING: NCR-000131(ZPMC-0125)

With this letter of response, ZPMC requests closure for Caltrans NCR-000131 (ZPMC-0125). As the comments from caltrans: please provide documentation that the weld repairs were performed and that the repairs were acceptable. So we submit the documentation as follow.

Therefore ZPMC considers NCR-000131 (ZPMC-0125) can be closed.

Please check the attached documentation for acceptance and close the NCR-000131 (ZPMC-0125).

ATTACHMENT:

NCR-000131 (ZPMC-0125)
ZPMC internal non-conformance report
Final visual inspection report
The complete UT report

Zhao Shuangbao

2008.12.1

[Signature]
ABF QCM
1 DEC. 08



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: 19-May-2008

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

Dear: Mr. Charles Kanapicki
Attention: Mr. Dave Williams Consultant

Job Name: SAS Superstructure

Subject: NCR No. ZPMC-0125

Document No: 05.03.06-000106

Reference Description: Repairs of Cracks without Engineer Approval

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:

The Contractor repaired cracks in welds without prior Engineer approval. This occurred on repair of cracks that were identified by QC visual examination on weld joint #s -007 and -008 of segment SEG-016A, which were welds performed with ceramic backing.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences.

Transmitted by: Stanley Ku Sr. Bridge Engineer

Attachments: ZPMC-0125

cc: Rick Morrow, Gary Pursell, Brian Boal, Jason Tom, Ching Chao

File: 05.03.06

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



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 (707) 649-5453
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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, PRC

Report No: NCR-000131

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 11-May-2008

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

NCR #: ZPMC-0125

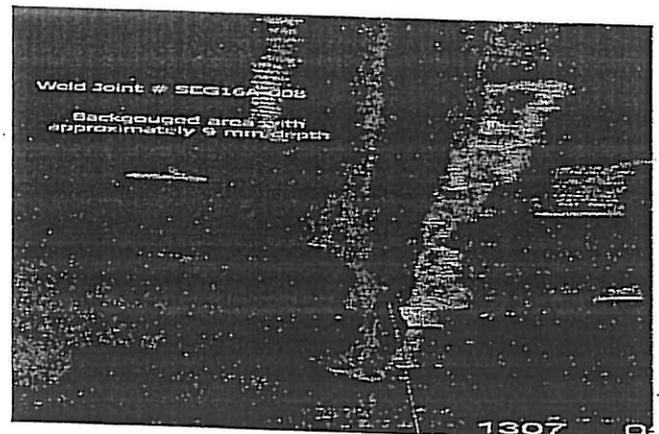
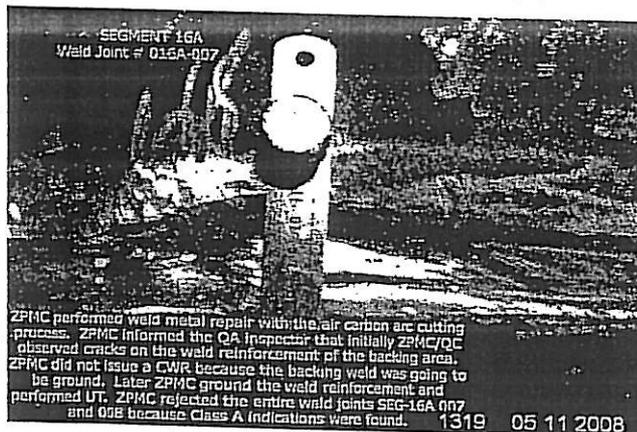
Type of problem:

Welding Concrete Other
 Welding Curing Procedural Bridge No: 34-0006
 Joint fit-up Coating Other Component: SEG-016A
 Procedural Procedural Descriptor: OBG Segment Assembly

Reference Description: Repairs of Cracks without Engineer Approval

Description of Non-Conformance:

The Contractor repaired cracks in welds without prior Engineer approval. This occurred on repair of cracks that were identified by QC visual examination on weld joint #s -007 and -008 of segment SEG-016A, which were welds performed with ceramic backing.



Applicable reference:

Special Provisions, Section 8 3 Welding (p. 154): "all repairs of cracks require prior approval of the Engineer".

Who discovered the problem: QA Inspector Alfredo Acuna

Name of individual from Contractor notified: ABFJV QC Inspector Don Walson

Time and method of notification: 5-11-2008

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: 05-16-2008, 10:15 via telephone

QC Inspector's Name: ZPMC QC Inspector Shen Xu Jun

Was QC Inspector aware of the problem:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

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 Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

Inspected By: Lowry,Patrick

SMR

Reviewed By: Lowry,Patrick

SMR



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 B787-UT-774R2

DATE 2008.05.23

PAGE 1 OF 2

Revision No: 0

PROJECT NO.: 工程编号 ZP06-787

CONTRACTOR: CALTRANS

ITEMS NAME: OBG PLATE PANEL

DRAWING NO.: SEG16A

CALTRANS CONTRACT NO.: 04-0120F4

部件名称 SPLICE

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

BUTT

Dec. 28, 2008

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 IIV BLOCK TYPE II

C.M.C

A709M-345T2-X 1/20/22/16mm

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 °	2.5 MHz	18x18 mm				
Changchao	0 °	2.5 MHz	20 mm	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							
SEG016A-007	1R2	69.2	B	1	47	35	2	+10	15	45	15	0	750	REJ.	
	2R2	69.2	B	1	37	35	1	+1	15	46	15	0	1110	REJ.	
	3R2	69.2				35								ACC.	
	4R2	69.2	B	2	46	35	3	+8	80	63	13	-2	1380	REJ.	
	4R2	69.2	B	2	46	35	3	+8	10	59	13	0	1470	REJ.	
	5R2	69.2	B	1	35	35	2	-2	25	45	15	0	1550	REJ.	
	6R2	69.2	B	1	31	35	2	-6	15	49	15	0	1640	REJ.	

EXAMINED BY 主探

REVIEWED BY 审核:

Ma Jilong 2008.05.23

XU Donggang 2008.05.23

LEVEL - II SIGN / DATE

LEVEL - II SIGN / DATE

质量经理 / QCM

用户 CUSTOMER

Hu Gang 05/28/08

签字 SIGN / 日期 DATE

签字 SIGN / 日期 DATE

Attachment-1. CONTINUED



REPORT OF ULTRASONIC EXAMINATION

REPORT NO. 报告编号 B787-UT-774R2

DATE 2008.05.23

PAGE 2 OF 2

Revision No: 0

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						
					a	b	c	d	Length 长度	Sound Path 声程	Depth from Face 'A' 距表面深度	From X 距X	From Y 距Y		
SEG016A-007	6R2	69.2	B	1	43	35	1	+7	10	40	14	0	1720	REJ.	
	7R2	69.2	B	1	37	35	1	+1	5	38	13	0	1820	REJ.	
	8R2	69.2				35								ACC.	
	9R2	69.2				35								ACC.	
	10R2	69.2				35								ACC.	
	11R2	69.2				35								ACC.	
	12R2	69.2	B	1	47	35	2	+10	20	53	14	0	7970	REJ.	
	13R2	69.2				35								ACC.	
	14R2	69.2	B	1	28	35	2	-9	15	49	14	-1	8110	REJ.	
SEG016A-008	1R2	69.2				35								ACC.	
	2R2	69.2				35								ACC.	
	3R2	69.2				35								ACC.	
	4R2	69.2				35								ACC.	
	5R2	69.2				35								ACC.	
	6R2	69.2				35								ACC.	
	7R2	69.2				35								ACC.	
	8R2	69.2	B	1	42	35	3	+4	40	50	21	-6	4400	REJ.	
	9R2	69.2				35								ACC.	

BLANK

EXAMINED BY 主探

Ma Jiz Long 2008.05.23

LEVEL - II SIGN / DATE

REVIEWED BY 审核:

Xu Longgang 2008.05.23

LEVEL - II SIGN / DATE

质量经理 / QCM

Huang 05/28/08

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-774R3

DATE 2008.05.31

PAGE 1 OF 2

Revision No: 0

PROJECT NO.: 工程编号 ZP06-787

CONTRACTOR: CALTRANS

ITEMS NAME: OBG PLATE PANEL
部件名称 SPLICE

DRAWING NO.: SEG16A
图号

CALTRANS CONTRACT NO.: 04-0120F4
加州工程编号

REFERENCING CODE 参考规范
AWS D1.5-2002

ACCEPTANCE STANDARD 接受标准
AWS D1.5-2002(Table 6.3)

PROCEDURE NO. 程序编号
ZPQC-UT-01

WELDING PROCESS 焊接方法
SMAW

JOINT TYPE 焊缝类型
BUTT

CALIBRATION DUE DATE 仪器校正有效期
Dec. 28, 2008

EQUIPMENT 设备
UT SCOPE

MANUFACTURER 制造商
PANAMETRICS

MODEL NO. 样式编号
EPOCH-4B

SERIAL NO. 序列编号
071565311, 061488510,
061495811, 070152011,

CALIBRATION BLOCK 试块
AWS IIV BLOCK TYPE II

COUPLANT 耦合剂
C.M.C

MATERIAL/THICKNESS 材料厚度
A709M-345T2-X /20/22/16mm

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 °	2.5 MHz	18x18 mm				
Changchao	0 °	2.5 MHz	20 mm	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
SEG016A-007	1R3	69.2				35									ACC.	
	2R3	69.2				35									ACC.	
	4R3	69.2				35									ACC.	
	4R3	69.2				35									ACC.	
	5R3	69.2				35									ACC.	
	6R3	69.2				35									ACC.	
	6R3	69.2				35									ACC.	

EXAMINED BY 主探

REVIEWED BY 审核:

LEVEL - II SIGN / DATE

LEVEL - II SIGN / DATE

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



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
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(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, PRC**Report No:** NCS-000123**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 12-Dec-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0125**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: 11-May-2008**Description of Non-Conformance:**

The Contractor repaired cracks in welds without prior Engineer approval. This occurred on repair of cracks that were identified by QC visual examination on weld joint #s -007 and -008 of segment SEG-016A, which were welds performed with ceramic backing.

Contractor's proposal to correct the problem:

The Contractor provided documentation which included internal NCR, acceptable VT and UT reports.

Corrective action taken:

Closed by Caltrans Construction. METS closed the NCR based on Construction's direction.

Did corrective action require Engineer's approval? Yes No**If so, name of Engineer providing approval:** Stanley Ku and Doug Wright **Date:** 12-Dec-2008**Is Engineer's approval attached?** Yes No Email of concurrence to close NCR is on file.**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 Sang Le, who represents the Office of Structural Materials for your project.

Inspected By: Dautermann, Peter

Quality Assurance Inspector

Reviewed By: Dautermann, Peter

QA Reviewer