

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-000873

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 24-Oct-2010

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

NCR #: ZPMC-0835

Type of problem:

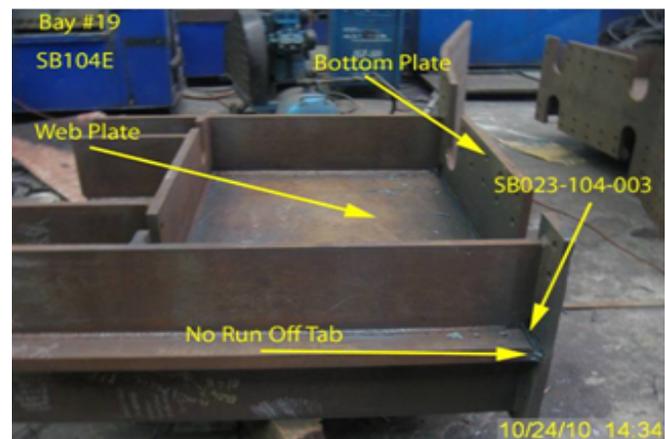
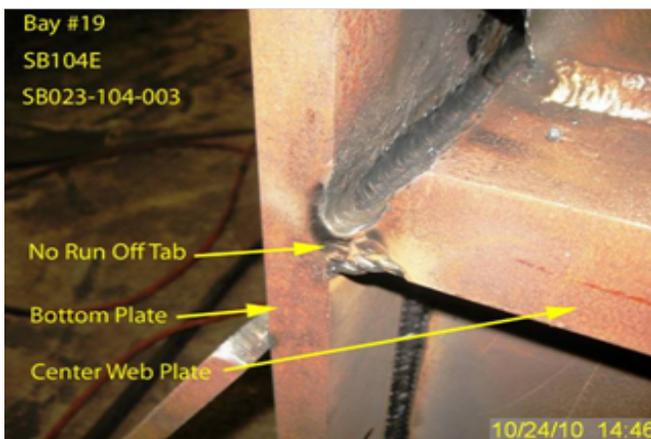
Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Lift 12 Suspender Brackets
Procedural	Procedural	Description:	

Reference Description: Contractor performed CJP welding on Lift 12 Suspender Brackets without following the D1.5 requirements (No run-off tap)

Description of Non-Conformance:

During Quality Assurance (QA) random in-process observations of the fabrication of Lift 12 Suspender Brackets SB104E, SB104W, SB106E, and SB106W, this Caltrans QA inspector discovered the following issues:

- Complete Joint Penetration (CJP) Welding was being performed without using run-off tabs.
- The members are identified as Suspender Brackets for Lift 12.
- The welds are CJP, T joints identified as; SB022-104-003, SB022-106-003, SB023-106-003, and SB023-106-003.
- The welds are joining the Suspender Bracket center web plate to bottom plate.
- OBG Suspender brackets are located in the Bay 19.



Applicable reference:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

American Weld Society (AWS) D1.5 2002 section 3.12.1 "Welds shall be terminated at the end of a joint in a manner that will ensure sound welds. Whenever possible, this shall be done using weld tabs (extension bars and run off plates) placed in a manner that will duplicate the joint detail being welded".

Who discovered the problem: Dennis Combs

Name of individual from Contractor notified: Peng Wen Jun

Time and method of notification: 15:00 hours, 10/24/2010, Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 13:00 hours, 10/25/10, email

QC Inspector's Name: Xu Tao

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 Jim Devey, (86) 150-0002-6784, who represents the Office of Structural Materials for your project.

Inspected By: Tsang, Eric

SMR

Reviewed By: Devey, Jim

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: 27-Oct-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: 05.03.06-000830

Subject: NCR No. ZPMC-0835

Reference Description: Contractor performed CJP welding on Lift 12 Suspender Brackets without following the D1.5 requirements (No run-off tap)

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:** 12

Remarks:

- During Quality Assurance (QA) random in-process observations of the fabrication of Lift 12 Suspender Brackets SB104E, SB104W, SB106E, and SB106W, Caltrans QA inspector discovered the following issues:
- Complete Joint Penetration (CJP) Welding was being performed without using run-off tabs.
 - The members are identified as Suspender Brackets for Lift 12.
 - The welds are CJP, T joints identified as; SB022-104-003, SB022-106-003, SB023-106-003, and SB023-106-003.
 - The welds are joining the Suspender Bracket center web plate to bottom plate.
 - OBG Suspender brackets are located in the Bay 19.

Action Required and/or Action Taken:

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

Transmitted by: Laraine Woo Transportation Engineer

Attachments: ZPMC-0835

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

NCR PROPOSED RESOLUTION

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

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000830

Subject: NCR No. ZPMC-0835

Dated: 19-Nov-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000839 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC is providing NDT of the weld performed with run off tabs to show that the weld was not adversely affected.

ZPMC is providing NDT of the weld performed with run off tabs to show that the weld was not adversely affected. In the future, ZPMC QC will look for this specifically to ensure that there are run off tabs in place before welding. Based on the acceptable NDT, ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000839R00;

Caltrans' comments:

Status: CLO

Date: 22-Nov-2010

The proposed resolution is acceptable. This NCR is considered closed.

Submitted by: Woo, Laraine

Attachment(s):

Date: 22-Nov-2010



No. B-931

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-11-19

REGARDING: NCR-000873(ZPMC-0835)

ZPMC QA personnel have talked this issue with the floor QC to address the requirement to install run on tab end tabs during the welding of CJP joint. ZPMC is providing the NDT records to show the acceptance of these welds. Please be noticed ZPMC has corrected the wrong weld ID in NCR. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000873(ZPMC-0835)

B787-UT-18178 R1

B787-UT-18179

B787-UT-18177

B787-UT-18176 R1

A handwritten signature in black ink, appearing to be 'L. W.' or similar, written in a cursive style.

11/19/2010

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-000873

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 24-Oct-2010

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

NCR #: ZPMC-0835

Type of problem:

Welding Concrete Other

Welding Curing Procedural

Joint fit-up Coating Other

Procedural Procedural Description:

Bridge No: 34-0006

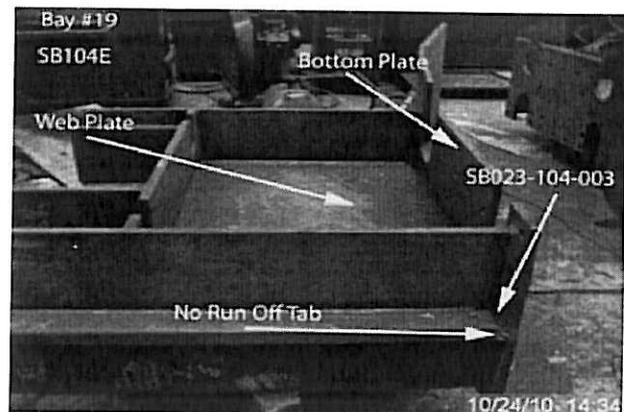
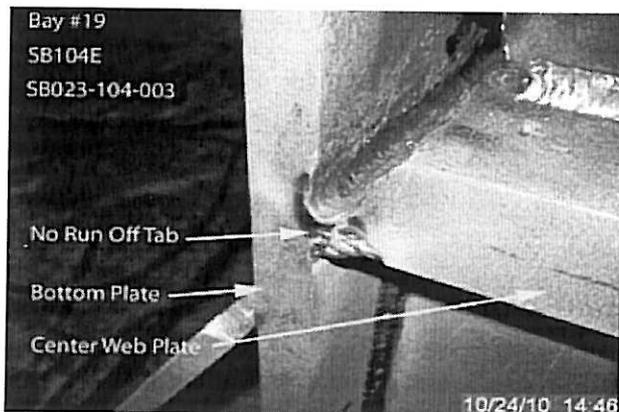
Component: Lift 12 Suspender Brackets

Reference Description: Contractor performed CJP welding on Lift 12 Suspender Brackets without following the D1.5 requirements (No run-off tap)

Description of Non-Conformance:

During Quality Assurance (QA) random in-process observations of the fabrication of Lift 12 Suspender Brackets SB104E, SB104W, SB106E, and SB106W, this Caltrans QA inspector discovered the following issues:

- Complete Joint Penetration (CJP) Welding was being performed without using run-off tabs.
- The members are identified as Suspender Brackets for Lift 12.
- The welds are CJP, T joints identified as; SB022-104-003, SB022-106-003, SB023-104-003, and SB023-106-003.
- The welds are joining the Suspender Bracket center web plate to bottom plate.
- OBG Suspender brackets are located in the Bay 19.



Applicable reference:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

American Weld Society (AWS) D1.5 2002 section 3.12.1 "Welds shall be terminated at the end of a joint in a manner that will ensure sound welds. Whenever possible, this shall be done using weld tabs (extension bars and run off plates) placed in a manner that will duplicate the joint detail being welded".

Who discovered the problem: Dennis Combs

Name of individual from Contractor notified: Peng Wen Jun

Time and method of notification: 15:00 hours, 10/24/2010, Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 13:00 hours, 10/25/10, email

QC Inspector's Name: Xu Tao

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 Jim Devey, (86) 150-0002-6784, who represents the Office of Structural Materials for your project.

Inspected By: Tsang, Eric

SMR

Reviewed By: Devey, Jim

SMR



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 B787-UT-18178R1 DATE 2010.11.11 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: SUPPORT BEAM DRAWING NO.: SB104E CALTRANS CONTRACT NO.: 04-0120F4
 部件名称 图号 加州工程编号

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

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

EQUIPMENT 设备 MANUFACTURER 制造商 MODEL NO. 样式编号 SERIAL NO. 序列编号
 UT SCOPE HANWEI H610e 61e1733

CALIBRATION BLOCK 试块 COUPLANT 耦合剂 MATERIAL/THICKNESS 材料厚度
 AWS IIW BLOCK TYPE II C.M.C A709M-345T2 45/28mm

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
AMERICA	70°	2.25MHz	0.75×0.625 in				
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
SB023-104-003	1R1	70													ACC.	100%
	3R1	70													ACC.	100%
AFTER B-WR16736																
BLANK																

EXAMINED BY 主探 <i>Dong Sheng wai</i> 2010.11.17 LEVEL - II SIGN / DATE	REVIEWED BY 审核 <i>[Signature]</i> 2010.11.17 LEVEL - II SIGN / DATE
质量经理 / QCM <i>[Signature]</i> 2010.11.17 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-18179 DATE 2010.11.07 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: SUPPORT BEAM DRAWING NO.: SB106E CALTRANS CONTRACT NO.: 04-0120F4
 部件名称 图号 加州工程编号

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

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

EQUIPMENT 设备 MANUFACTURER 制造商 MODEL NO. 样式编号 SERIAL NO. 序列编号
 UT SCOPE HANWEI H610e 61e1733

CALIBRATION BLOCK 试块 COUPLANT 耦合剂 MATERIAL/THICKNESS 材料厚度
 AWS IIW BLOCK TYPE II C.M.C A709M-345T2 45/28mm

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
AMERICA	70°	2.25MHz	0.75×0.625 in				
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		
SB023-106-003	1	70	A	1	65	51	4	+10	15	80	28	+20	350	ACC.	100%
	2	70	A	1	72	51	10	+11	20	148	50	0	990	ACC.	100%
	3	70	A	2	72	51	13	+8	20	190	24	-22	1255	ACC.	100%

AFTER HSR1(B)-9727

BLANK

EXAMINED BY 主探 <i>Dong Sheng wei</i> 2010.11.09 LEVEL - II SIGN / DATE	REVIEWED BY 审核 <i>Li Liming</i> 2010.11.09 LEVEL - II SIGN / DATE
质量经理 / QCM <i>Lu Jianhua</i> 2010.11.09 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-18177 DATE 2010.11.07 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: SUPPORT BEAM DRAWING NO.: SB106W CALTRANS CONTRACT NO.: 04-0120F4
 部件名称 图号 加州工程编号

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

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

EQUIPMENT 设备 MANUFACTURER 制造商 MODEL NO. 样式编号 SERIAL NO. 序列编号
 UT SCOPE HANWEI H610e 61e1733

CALIBRATION BLOCK 试块 COUPLANT 耦合剂 MATERIAL/THICKNESS 材料厚度
 AWS IIW BLOCK TYPE II C.M.C A709M-345T2 45/28mm

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
AMERICA	70°	2.25MHz	0.75×0.625 in				
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		
SB022-106-003		70				34								ACC.	100%

AFTER HSR1(B)-9724

BLANK

EXAMINED BY 主探
Dong Sheng wei 2010.11.5
 LEVEL - II SIGN / DATE

REVIEWED BY 审核
L. Liming 2010.11.5
 LEVEL - II SIGN / DATE

质量经理 / QCM
L. Frank 2010.11.5
 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-18176R1 DATE 2010.11.10 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: SUPPORT BEAM DRAWING NO.: SB104W CALTRANS CONTRACT NO.: 04-0120F4
 部件名称 图号 加州工程编号

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

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

EQUIPMENT 设备 MANUFACTURER 制造商 MODEL NO. 样式编号 SERIAL NO. 序列编号
 UT SCOPE HANWEI H610e 61e1733

CALIBRATION BLOCK 试块 COUPLANT 耦合剂 MATERIAL/THICKNESS 材料厚度
 AWS IIV BLOCK TYPE II C.M.C A709M-345T2 45/28mm

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
AMERICA	70°	2.25MHz	0.75×0.625 in				
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
SB022-104-003		70				65									ACC.	100%

AFTER B-WR16719

BLANK

EXAMINED BY 主探 Dongshengwei 2010.11.10
 LEVEL - II SIGN / DATE

REVIEWED BY 审核 Li Jun 2010.11.10
 LEVEL - II SIGN / DATE

质量经理 / QCM Lu Jianhua 2010.11.10
 签字 SIGN / 日期 DATE

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-000834**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 22-Nov-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0835**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-Oct-2010**Description of Non-Conformance:**

During Quality Assurance (QA) random in-process observations of the fabrication of Lift 12 Suspender Brackets SB104E, SB104W, SB106E, and SB106W, this Caltrans QA inspector discovered the following issues:

- Complete Joint Penetration (CJP) Welding was being performed without using run-off tabs.
- The members are identified as Suspender Brackets for Lift 12.
- The welds are CJP, T joints identified as; SB022-104-003, SB022-106-003, SB023-106-003, and SB023-106-003.
- The welds are joining the Suspender Bracket center web plate to bottom plate.
- OBG Suspender brackets are located in the Bay 19.

Contractor's proposal to correct the problem:

Contractor will perform NDT of the welds without run off tabs to show the welds are not adversely affected. Contractor will remind QC to look for this specifically during fit-up inspections to ensure that run off tabs in place before welding.

Corrective action taken:

Contractor provided the NDT report to prove the welds are acceptable. QCs' were reminded tht specific check on runoff tabs have to be carried out during fit-up inspections.

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 Wahbeh, Mazen 818-292-0659, who represents the Office of Structural Materials for your project.

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Inspected By: Ng,Michael

Quality Assurance Inspector

Reviewed By: Wahbeh,Mazen

QA Reviewer