

**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, PRC

**Report No:** NCR-000127

**Prime Contractor:** American Bridge/Fluor Enterprises, a JV

**Date:** 30-Apr-2008

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

**NCR #:** ZPMC-0121

### Type of problem:

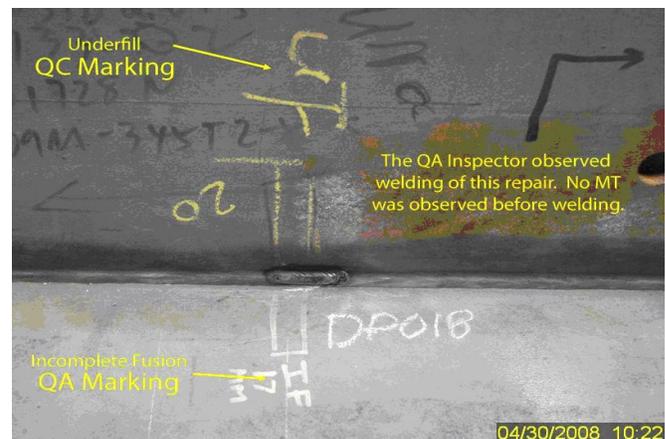
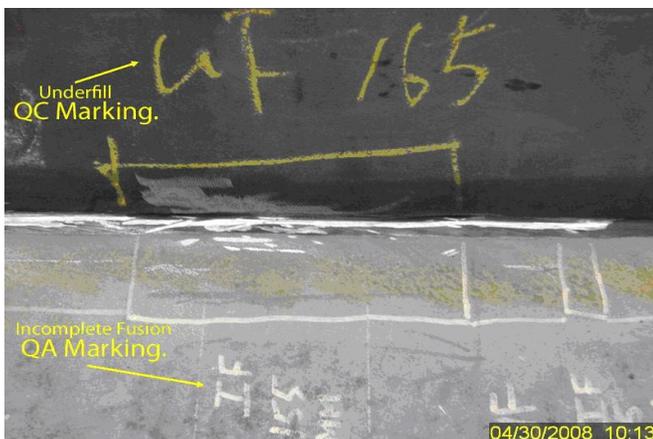
<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b> DP-021-002, DP-018-002
<b>Procedural</b>	<b>Procedural</b>	<b>Descriptor:</b> DP-021-002, DP-018-002	

**Reference Description:** ABF-SUB-000634R01, "Repair Procedure for Closed-Rib Welds"

### Description of Non-Conformance:

The Contractor did not perform weld repairs in accordance with accepted procedures. The Contractor performed repairs to lack of fusion in a closed rib weld without performing MT after grinding to ensure the removal of all defects. When informed of this, the Contractor stated that the repair was being performed for underfill, not for lack of fusion. The accepted closed rib weld repair procedures do not allow grinding prior to welding for underfill repair. This occurred on weld joint #008 of deck panel DP-021-002.

It was also observed that the Contractor has performed grinding in preparation for weld repairs on other defects which the Contractor has classified as underfill. This was observed in weld #007 of deck panel DP-018-002.



### Applicable reference:

ABF-SUB-000634R01, "Repair Procedure for Closed-Rib Welds":

"2.2 Repair for undersize welds, underfill crater or lack of fusion:

2.2.1 Prior to repair, remove all the weld slags, and clear the welds and adjacent base metal surface.

2.2.2 Lack of fusion will be removed by grinding. MT will be performed to ensure the removal of all defects.

2.2.3 Choose either (approved) WPS ... to deposit the additional weld metal. Minimum deposit weld size shall

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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follow the corresponding WPS.

2.2.4 Grind flush with the adjacent base metal or weld surface.

2.2.5 Perform MT to the repaired area."

**Who discovered the problem:** QA Inspector William Clifford

**Name of individual from Contractor notified:** ABFJV QC Inspector Pete Ferguson

**Time and method of notification:** 08:45 in person

**Name of Caltrans Engineer notified:** Ching Chao

**Time and method of notification:** 08:00 on 05-01-2008 in person

**QC Inspector's Name:** NA

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

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**Inspected By:** Lowry,Patrick

SMR

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**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 Enterprises, a JV  
375 BURMA ROAD  
OAKLAND CA 95607

**Date:** 07-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:** 05.03.06-000102

**Subject:** NCR No. ZPMC-0121

**Reference Description:** ABF-SUB-000634R01, "Repair Procedure for Closed-Rib Welds"

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 - No Response Required.

**Material Location:** OBG **Lift:**

### Remarks:

The Contractor did not perform weld repairs in accordance with accepted procedures. The Contractor performed repairs to lack of fusion in a closed rib weld without performing MT after grinding to ensure the removal of all defects. When informed of this, the Contractor stated that the repair was being performed for underfill, not for lack of fusion. The accepted closed rib weld repair procedures do not allow grinding prior to welding for underfill repair. This occurred on weld joint #008 of deck panel DP-021-002. It was also observed that the Contractor has performed grinding in preparation for weld repairs on other defects which the Contractor has classified as underfill. This was observed in weld #007 of deck panel DP-018-002.

### 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-0121

**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:** 05.03.06-000102

**Subject:** NCR No. ZPMC-0121

**Dated:** 09-Jul-2008

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000042 Rev: 00

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**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC will check surface condition and mark defect by specification code and will consider the view of ABF and CT when correcting defects.

Please see attached response from ZPMC. ABFJV has reviewed and concurs with this response and considers this issue resolved.

**Submitted by:** Kanapicki, Charles

**Attachment(s):** ABF-NPR-000042R00;

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**Caltrans' comments:**

**Status:** CLO

**Date:** 22-Aug-2008

The Contractor's response is acceptable. The Department concurs that Non-Conformance ZPMC-0121 is closed.

**Submitted by:** Wright, Doug

**Date:** 22-Aug-2008

**Attachment(s):**

## DEPARTMENT OF TRANSPORTATION

CHINA FABRICATION TEAM

506 Shangcheng Rd., Pudong New District  
Shanghai 200120, PRC

## REVIEW OF CONTRACTOR'S TRANSMITTAL

To: Dave Williams, American Bridge – Fluor, a Joint Venture  
Gary Pursell, Resident Engineer

Review Date: 07-03-2008From: Ady Velasco, Structural Materials RepresentativeContract No.: 04-0120F4Date/Time Submittal Received: 06-05-2008/
 China Standard Time  
(GMT+08:00)
Contractor's Transmittal #: TL-08-1345 Rev. # 0

<input checked="" type="checkbox"/>	substantially <b>complies</b> with contract requirements and is approved		
<input type="checkbox"/>	substantially <b>complies</b> with contract requirements and is approved as noted.		
<input type="checkbox"/>	Lacks sufficient information and/or contains unacceptable items that must be corrected or prior to resubmital		
Verbal Notification		<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
		Date:	Time:
Name of individual from Contractor Notified:			
This submittal is a:	<input type="checkbox"/> Welding Report	<input type="checkbox"/> Critical Weld Repair	
	<input type="checkbox"/> Request for Information	<input type="checkbox"/> Heat Straightening Request	
	<input type="checkbox"/> Fabrication Procedures	<input checked="" type="checkbox"/> Other: <u>NCR close out documents</u>	
Submitting Contractor: <u>ABF</u>			
ITEMS REVIEWED	COMPLIES		COMMENTS
1.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	NCR No. ZPMC-0127 was labeled on transmittal cover sheet was actually NCR. No. ZPMC-0121. ZPMC-0127 was not reviewed in this transmittal.
2.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
3.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
4.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
5.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
6.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
7.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
8.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Add more items here.....# - Item - Complies (Yes or No)-Comments			

Remarks:

Reviewer: Ady Velasco *AV*Date: 07-03-2008
 Construction Concurrence: *AV* Initial 7/4/08 Date

Received by (ABFJV): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_



Page 1 of 1

Date: 5 June 2008

To: Gary Pursell

From: Steve Lawton

Contract No. 04-0120F4

Dear Gary Pursell

This letter is issued to provide formal response addressing the proposed resolution to NCR ZPMC-0127 for Engineer's review and approval.

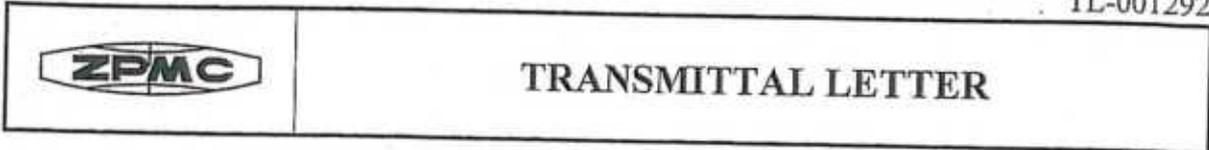
ZPMC has summarized the above listed NCR's and has generated an internal NCR for each occurrence.

ABFJV considers the NCR's mentioned as closed.

If further clarifications are needed, please contact me.



Steve Lawton  
Foreign Quality Assurance Manager  
American Bridge Fluor Joint Venture



PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 06/04/2008

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: NCR-000127 FOR CLOSURE

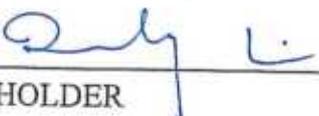
SUBMITTED FOR YOUR APPROVAL.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE WITH NO.B-264 FOR CLOSURE.
- (2) COPY OF NCR WITH NUMBER NCR-000127 (ZPMC-0121) .
- (3) COPY OF ZPMC INTERNAL NCR NCR-B-060

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:

  
 \_\_\_\_\_  
 PLAN HOLDER

RECEIVED 04 JUN 2008  
 1548  
 \_\_\_\_\_  
 DATE

  
 \_\_\_\_\_  
 COMPANY

\_\_\_\_\_  
 PHONE NO.

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



No. B-264

## LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2008-6-4

REGARDING: NCR-000127 (ZPMC-0121)

With this letter of response, ZPMC requests closure for Caltrans NCR-000127 (ZPMC-0121). Because ZPMC QC on site consider that defect described in the nonconformance report is a underfill but not incomplete fusion which mark "IF" by caltrans inspector .ZPMC will first check the surface condition and mark the defects by specification code, during the course of checking we will take view of the ABF/CTs' reference, If find some mark false, he can change the sign to correct in accordance with the AWS requirement immediately.

So ZPMC considers NCR-000127 can be closed.

Please reference attached documentation for acceptance and closure the NCR-000127 (ZPMC-0121).

ATTACHMENT:

NCR-000127 (ZPMC-0121)

Zhao Shuangbao

6.4

This document is: APPROVED  
State of California  
DEPARTMENT OF TRANSPORTATION  
Pursuant Section 5-1.02 of the  
Standard Specifications  
Initial *JL* Date: 7/4/08

REVIEWED  
*Thomas Lark*  
ABF QCM  
5 JUNE 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 Enterprises, a JV  
375 BURMA ROAD  
OAKLAND CA 95607

Date: 07-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-0121

Document No: 05.03.06-000102

Reference Description: ABF-SUB-000634R01, "Repair Procedure for Closed-Rib Welds"

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 - No Response Required.

Material Location: OBG

Lift:

### Remarks:

The Contractor did not perform weld repairs in accordance with accepted procedures. The Contractor performed repairs to lack of fusion in a closed rib weld without performing MT after grinding to ensure the removal of all defects. When informed of this, the Contractor stated that the repair was being performed for underfill, not for lack of fusion. The accepted closed rib weld repair procedures do not allow grinding prior to welding for underfill repair. This occurred on weld joint #008 of deck panel DP-021-002. It was also observed that the Contractor has performed grinding in preparation for weld repairs on other defects which the Contractor has classified as underfill. This was observed in weld #007 of deck panel DP-018-002.

### 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-0121

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

File: 05.03.06

**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF ENGINEERING SERVICES**  
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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-000127

**Prime Contractor:** American Bridge/Fluor Enterprises, a JV

**Date:** 30-Apr-2008

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

**NCR #:** ZPMC-0121

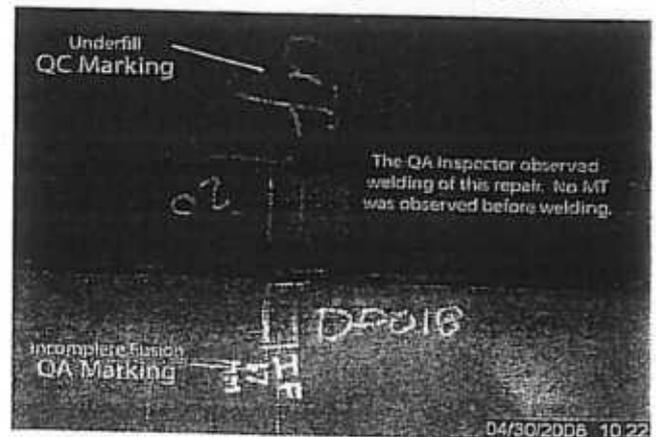
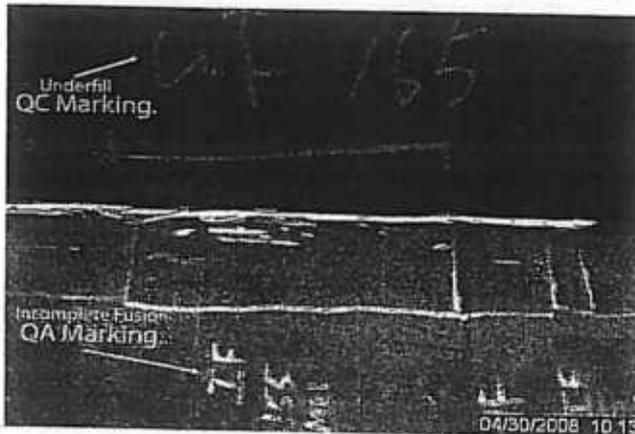
**Type of problem:**

Welding  Concrete  Other   
 Welding  Curing  Procedural  **Bridge No:** 34-0006  
 Joint fit-up  Coating  Other  **Component:** DP-021-002, DP-018-002  
 Procedural  Procedural  **Descriptor:** DP-021-002, DP-018-002

**Reference Description:** ABF-SUB-000634R01, "Repair Procedure for Closed-Rib Welds"

**Description of Non-Conformance:**

The Contractor did not perform weld repairs in accordance with accepted procedures. The Contractor performed repairs to lack of fusion in a closed rib weld without performing MT after grinding to ensure the removal of all defects. When informed of this, the Contractor stated that the repair was being performed for underfill, not for lack of fusion. The accepted closed rib weld repair procedures do not allow grinding prior to welding for underfill repair. This occurred on weld joint #008 of deck panel DP-021-002. It was also observed that the Contractor has performed grinding in preparation for weld repairs on other defects which the Contractor has classified as underfill. This was observed in weld #007 of deck panel DP-018-002.



**Applicable reference:**

ABF-SUB-000634R01, "Repair Procedure for Closed-Rib Welds":

"2.2 Repair for undersize welds, underfill crater or lack of fusion:

2.2.1 Prior to repair, remove all the weld slags, and clear the welds and adjacent base metal surface.

2.2.2 Lack of fusion will be removed by grinding. MT will be performed to ensure the removal of all defects.

2.2.3 Choose either (approved) WPS ... to deposit the additional weld metal. Minimum deposit weld size shall

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

follow the corresponding WPS.

2.2.4 Grind flush with the adjacent base metal or weld surface.

2.2.5 Perform MT to the repaired area."

**Who discovered the problem:** QA Inspector William Clifford

**Name of individual from Contractor notified:** ABFJV QC Inspector Pete Ferguson

**Time and method of notification:** 08:45 in person

**Name of Caltrans Engineer notified:** Ching Chao

**Time and method of notification:** 08:00 on 05-01-2008 in person

**QC Inspector's Name:** NA

**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 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**

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, PRC**Report No:** NCS-000191**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 13-Feb-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0121**Type of problem:**

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

**Date the Non-Conformance Report was written:** 30-Apr-2008**Description of Non-Conformance:**

The Contractor did not perform weld repairs in accordance with accepted procedures. The Contractor performed repairs to lack of fusion in a closed rib weld without performing MT after grinding to ensure the removal of all defects. When informed of this, the Contractor stated that the repair was being performed for underfill, not for lack of fusion. The accepted closed rib weld repair procedures do not allow grinding prior to welding for underfill repair. This occurred on weld joint #008 of deck panel DP-021-002.

It was also observed that the Contractor has performed grinding in preparation for weld repairs on other defects which the Contractor has classified as underfill. This was observed in weld #007 of deck panel DP-018-002.

**Contractor's proposal to correct the problem:**

ZPMC will check surface condition and mark defect by specification code and will consider the view of ABF and CT when correcting defects.

**Corrective action taken:**

DP-018-002 was repaired and inspected by gate to gate UT and PAUT. The repair was accepted as indicated by NDT. The panel is accepted with an ABF Green Tag.

**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 Eric Tsang, +(86) 150.0042.2372, who represents the Office of Structural Materials for your project.

**Inspected By:** Tsang, Eric

Quality Assurance Inspector

**Reviewed By:** Wahbeh, Mazen

QA Reviewer