

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, China**Report No:** NCR-000815**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 26-Jul-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0777**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: OBG Suspender Bracket SB78E
Procedural	Procedural	Description: Missed MT transverse cracks by QC	

Reference Description: 15 Transverse Cracks discovered with MT testing after ZPMC had tested and accepted these welds

Description of Non-Conformance:

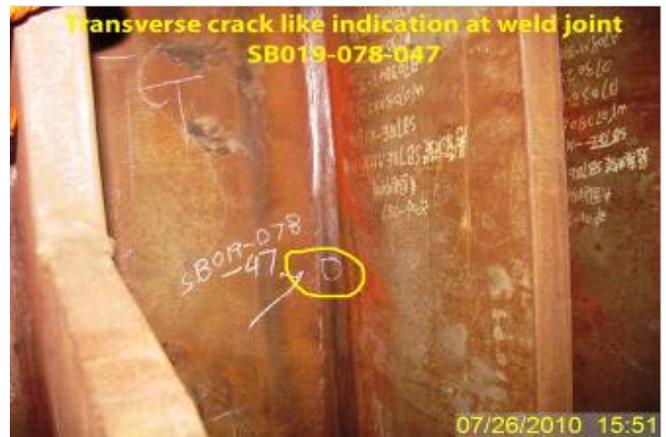
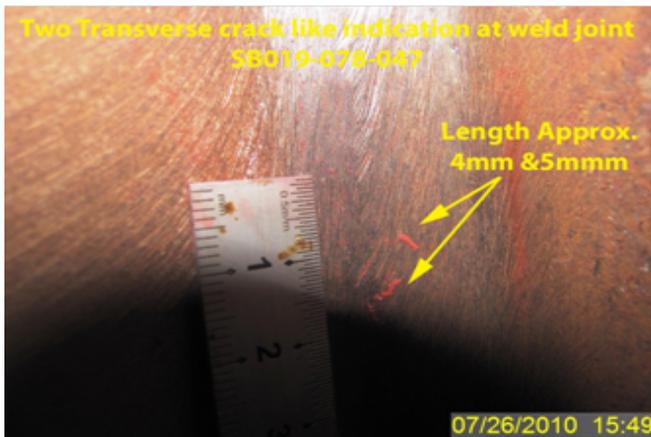
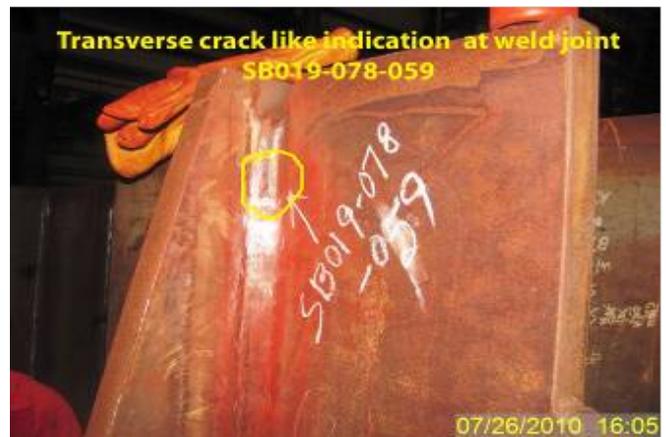
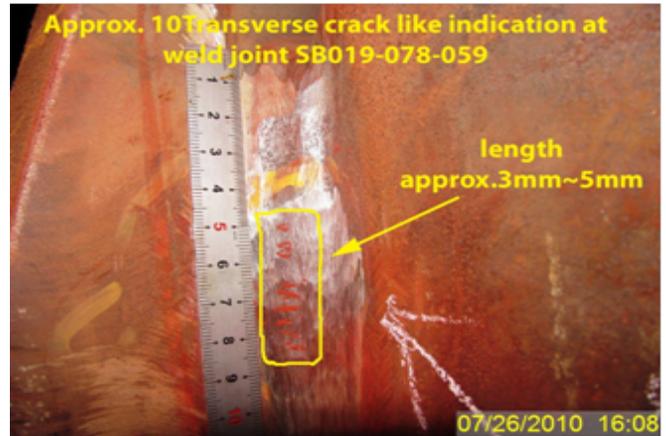
During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on Suspender Bracket SB78E for Segment 9CE, this QA Inspector discovered fifteen (15) Transverse linear cracks on the following welds:

- Weld # SB019-078-047: Two (2) Transverse linear cracks measuring approximately 4mm to 5mm in length.
- Weld # SB019-078-059: Ten (10) Transverse linear cracks measuring approximately 3mm to 5mm in length.
- Weld # SB019-078-065: Three (3) Transverse linear cracks measuring approximately 3mm to 7mm in length.
- All indications are clearly marked on the material near the weld.
- All welds are designated as Non-Seismic Performance Critical Members (Non-SPCM).
- All welds are fillet welds that join the Middle Web plate (X56CC) to Stiffeners (X55).
- OBG Suspender Bracket SB78E is located in Bay # 19.

The Notice of Witness Inspection Number (NWIT) is 06286. The indications are located inside an area that has been previously tested by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% MT inspection of this weld.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

Special Provisions Section 8.3 – “Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents.”

AWS D1.5 (02) Section 6.26.2 – “Welds that are subject to MT in addition to visual inspection shall have no cracks.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Who discovered the problem: Subhasis, Bera
Name of individual from Contractor notified: Peng We Jun
Time and method of notification: 1600 hours, 07-26-10, Verbal
Name of Caltrans Engineer notified: Laraine Woo
Time and method of notification: 1000 hours, 07-27-10, Verbal
QC Inspector's Name: Li Ming Yang
Was QC Inspector aware of the problem: Yes No
Contractor's proposal to correct the problem:

N/A

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

Inspected By:	Carreon,Albert	Lead Reviewer/Task Leader
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: 28-Jul-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: 05.03.06-000772

Subject: NCR No. ZPMC-0777

Reference Description: 15 Transverse Cracks discovered with MT testing after ZPMC had tested and accepted these 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.

Material Location: OBG **Lift:** 09

Remarks:

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on Suspender Bracket SB78E for Segment 9CE, this QA Inspector discovered fifteen (15) Transverse linear cracks on the following welds:

- Weld # SB019-078-047: Two (2) Transverse linear cracks measuring approximately 4mm to 5mm in length.
- Weld # SB019-078-059: Ten (10) Transverse linear cracks measuring approximately 3mm to 5mm in length.
- Weld # SB019-078-065: Three (3) Transverse linear cracks measuring approximately 3mm to 7mm in length.

-All indications are clearly marked on the material near the weld.
 -All welds are designated as Non-Seismic Performance Critical Members (Non-SPCM).
 -All welds are fillet welds that join the Middle Web plate (X56CC) to Stiffeners (X55).
 -OBG Suspender Bracket SB78E is located in Bay # 19.

The Notice of Witness Inspection Number (NWIT) is 06286. The indications are located inside an area that has been previously tested by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% MT inspection of this weld.

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-0777

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: 05.03.06-000772

Subject: NCR No. ZPMC-0777

Dated: 21-Sep-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000782 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has repaired the areas noted in the NCR and is submitting the MT documents to show that the repair was successful.

ZPMC has repaired the areas noted in the NCR and is submitting the MT documents to show that the repair was successful. The CWR for repair was not submitted to the Department prior to work commencing, but this issues has be clarified to the work site personnel to ensure that they clearly understand that the Department's approval for onsite CWRs is still required prior to work beginning. To prevent future occurrences of this ZPMC has reprimanded the inspector who accepted these welds and he is being held accountable for his actions. Future occurrences will decrease based on these actions. ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000782R00;

Caltrans' comments:

Status: CLO
Date: 26-Sep-2010

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

Submitted by: Woo, Laraine

Attachment(s):

Date: 26-Sep-2010



No. B-882

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-9-18

REGARDING: NCR-000815(ZPMC-0777)

These indications have been removed, repaired and retested to be acceptable. ZPMC is providing both the NDT records to show the soundness of these welds. The indications were repaired prior to the related templete CWR be confirmed by department's representative, due to the misunderstanding from ZPMC site personnel. ZPMC QA personnel have instruct the site personnel to follow the procedure of templete CWR which requirs all the templete CWR shall be confirmed by department's representative prior to using. And the unverified CWR has been submitted to department's engineer to review. Based on this, ZPMC is request closure of this NCR.

ATTACHMENT:

NCR-000815(ZPMC-0777)

B787-MT-25503 R1

B787-MT-26474 R1

Leq *W*

9/18/10



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: 28-Jul-2010

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-0777

Job Name: SAS Superstructure
Document No: 05.03.06-000772

Reference Description: 15 Transverse Cracks discovered with MT testing after ZPMC had tested and accepted these 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.

Material Location: OBG

Lift: 09

Remarks:

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on Suspender Bracket SB78E for Segment 9CE, this QA Inspector discovered fifteen (15) Transverse linear cracks on the following welds:

- Weld # SB019-078-047: Two (2) Transverse linear cracks measuring approximately 4mm to 5mm in length.
- Weld # SB019-078-059: Ten (10) Transverse linear cracks measuring approximately 3mm to 5mm in length.
- Weld # SB019-078-065: Three (3) Transverse linear cracks measuring approximately 3mm to 7mm in length.
- All indications are clearly marked on the material near the weld.

- All welds are designated as Non-Seismic Performance Critical Members (Non-SPCM).
- All welds are fillet welds that join the Middle Web plate (X56CC) to Stiffeners (X55).
- OBG Suspender Bracket SB78E is located in Bay # 19.

The Notice of Witness Inspection Number (NWIT) is 06286. The indications are located inside an area that has been previously tested by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% MT inspection of this weld.

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-0777

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao, Bill Casey
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 #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, China**Report No:** NCR-000815**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 26-Jul-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0777**Type of problem:**Welding Concrete Other Welding Curing Procedural Bridge No: 34-0006Joint fit-up Coating Other Component: OBG Suspender Bracket SB78EProcedural Procedural Description: Missed MT transverse cracks by QC**Reference Description:** 15 Transverse Cracks discovered with MT testing after ZPMC had tested and accepted these welds**Description of Non-Conformance:**

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on Suspender Bracket SB78E for Segment 9CE, this QA Inspector discovered fifteen (15) Transverse linear cracks on the following welds:

-Weld # SB019-078-047: Two (2) Transverse linear cracks measuring approximately 4mm to 5mm in length.

-Weld # SB019-078-059: Ten (10) Transverse linear cracks measuring approximately 3mm to 5mm in length.

-Weld # SB019-078-065: Three (3) Transverse linear cracks measuring approximately 3mm to 7mm in length.

-All indications are clearly marked on the material near the weld.

-All welds are designated as Non-Seismic Performance Critical Members (Non-SPCM).

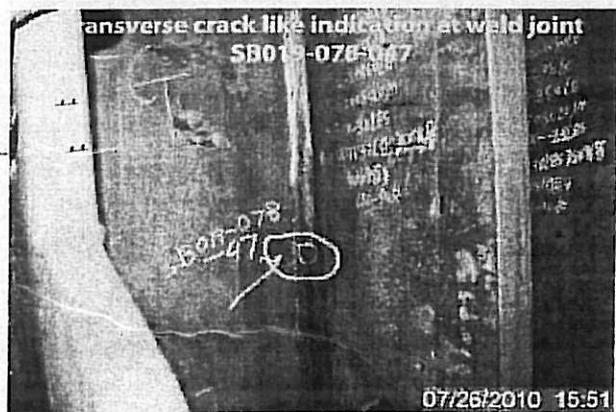
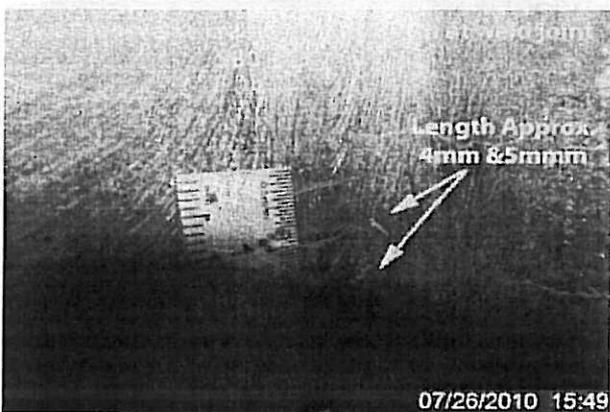
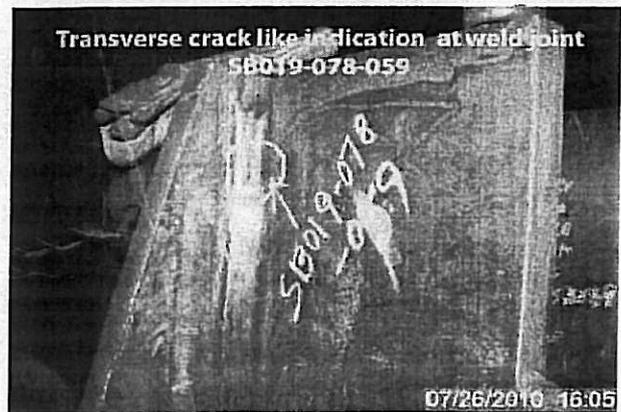
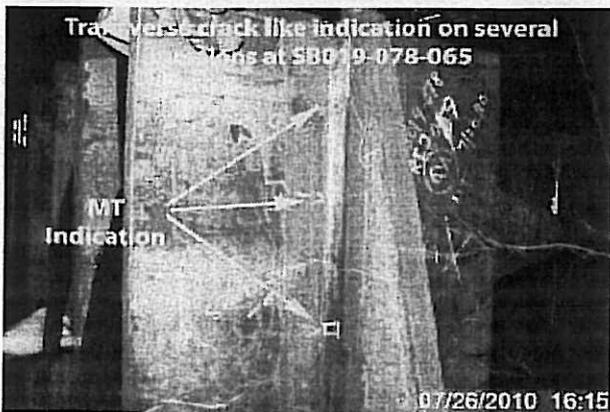
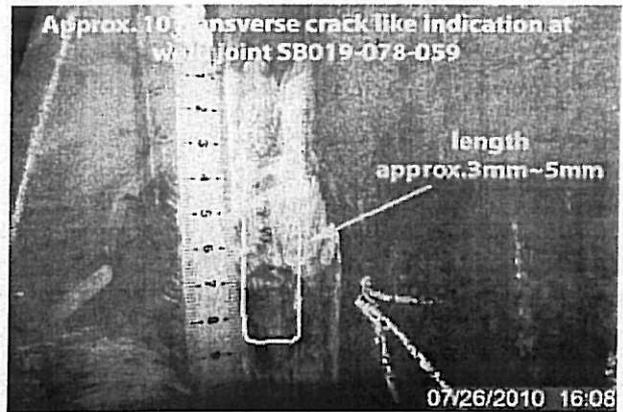
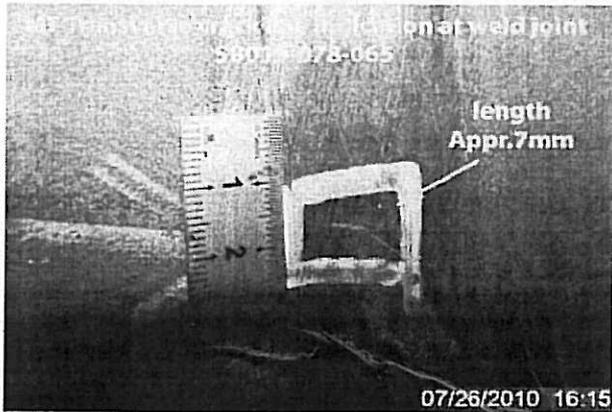
-All welds are fillet welds that join the Middle Web plate (X56CC) to Stiffeners (X55).

-OBG Suspender Bracket SB78E is located in Bay # 19.

The Notice of Witness Inspection Number (NWIT) is 06286. The indications are located inside an area that has been previously tested by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% MT inspection of this weld.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

Special Provisions Section 8.3 – “Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents.”

AWS D1.5 (02) Section 6.26.2 – “Welds that are subject to MT in addition to visual inspection shall have no cracks.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Who discovered the problem: Subhasis, Bera
Name of individual from Contractor notified: Peng We Jun
Time and method of notification: 1600 hours, 07-26-10, Verbal
Name of Caltrans Engineer notified: Laraine Woo
Time and method of notification: 1000 hours, 07-27-10, Verbal
QC Inspector's Name: Li Ming Yang
Was QC Inspector aware of the problem: Yes No
Contractor's proposal to correct the problem:

N/A

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

Inspected By: Carreon, Albert

Lead Reviewer/Task Leader

Reviewed By: Wahbeh, Mazen

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, China**Report No:** NCS-000808**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 21-Sep-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0777**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: 26-Jul-2010**Description of Non-Conformance:**

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on Suspender Bracket SB78E for Segment 9CE, this QA Inspector discovered fifteen (15) Transverse linear cracks on the following welds:

- Weld # SB019-078-047: Two (2) Transverse linear cracks measuring approximately 4mm to 5mm in length.
- Weld # SB019-078-059: Ten (10) Transverse linear cracks measuring approximately 3mm to 5mm in length.
- Weld # SB019-078-065: Three (3) Transverse linear cracks measuring approximately 3mm to 7mm in length.
- All indications are clearly marked on the material near the weld.
- All welds are designated as Non-Seismic Performance Critical Members (Non-SPCM).
- All welds are fillet welds that join the Middle Web plate (X56CC) to Stiffeners (X55).
- OBG Suspender Bracket SB78E is located in Bay # 19.

The Notice of Witness Inspection Number (NWIT) is 06286. The indications are located inside an area that has been previously tested by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% MT inspection of this weld.

Contractor's proposal to correct the problem:

Contractor proposes to repair the areas noted in NCR, and submits the MT report to show the repair work is acceptable. Contractor will discuss with inspectors at the work site to ensure that inspectors are aware of the procedure of critical welding repair prior to the repairing work. Contractor will identify and educate the inspector who accepts these welds. Contractor will monitor his working performance.

Corrective action taken:

Contractor repaired the weld areas that were noted in NCR, and provided the MT report. The MT report shows the weld area is acceptable. Contractor discussed with inspectors at the work site to ensure that inspectors are aware of the procedure of critical welding repair prior to the repairing work. Contractor identified and educated the inspector who accepted these welds. Contractor is monitoring his performance.

