

**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 #: 69.12**DAILY PROJECT JOURNAL**

**Prime Contractor:** American Bridge/Fluor Enterprises, a JV **Report No:** DPJ-000354  
**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Dated:** 16-Oct-2007  
**Location:** Changxing Island, Shanghai, China

**Submittals(New / Total):**      **CWR's:** 0 / 21      **HSR's:** 0 / 6      **NCR's:** 1 / 12

Item	Title	Detail
1	Nonconformance Reports (NCRs)	NCR-012 UT testing with improper technique.
2	Major component movement	77m Tower Mock-up: No welding observed.  89m Tower Mock-up: Performing repairs to interior corner plate.  114m Tower Mock-up: QC performed UT testing of Skin Plate PJP Butt welds.  Closed-rib Weld Trials: QA observed tack welding of 5 closed-ribs to deck plate for the Closed-rib Weld Trials.
3	Meetings attended	QA met with ABF and ZPMC at 1400 to discuss the schedule for the next two days: 77m Tower Mock-up: Skin A awaiting CWR for 3rd time repair, Begin Welding Diaphragm flange plate butt joints pending 2 additional flange plates from Wuxi Boiler (bending schedule for tomorrow). 89m Tower Mock-up: Weld Skin Plate Butt Joints, Beveling Skin Plates. 114m Tower Mock-up: Work pending resolution of stiffener to skin plate repair rate.
4	Key conversations	QA spoke with ABF representatives Danny McDonald and John Hamer regarding ideas for improving the quality of the CJP T-joints that ZPMC has had difficulty in producing sound welds. Mr. McDonald's approach is to change the weld joint configuration to provide better accessibility and a more balanced weld. Mr. Hamer's approach is to encourage ZPMC to automate the weld using a FCAW gantry system. QA suggested that they

---

## DAILY PROJECT JOURNAL

( Continued Page 2 of 3 )

---

combine their efforts.

Caltrans met with ABF and ZPMC at 1300 to discuss issues related to fabrication:

ZPMC informed ABF and QA that they performed internal verification of their UT procedure last night and determined the procedure was accurate based upon mechanical tests of actual welded test samples. ZPMC scheduled to perform UT on additional closed-ribs tomorrow in Caltrans presence and perform mechanical testing to verify the procedural accuracy. ABF Level III Steve Lawton and SMR Patrick Lowry discussed the number of samples necessary to establish the statistical accuracy of the procedure. Mr. Lawton would like the UT tomorrow to consist of 10 samples to verify if the UT procedure generally provides the accuracy. If the test results appear positive, further testing to produce comparative data to establish statistical accuracy will be performed.

QA discussed the NCR issued for UT Calibration not meeting AWS D1.5 criteria with ABF and ZPMC. ABF Level III Steve Lawton demonstrated the correct procedure for determining the index point and angle verification on an IIW Block. ZPMC stated they are in the process of purchasing IIW Blocks with the required angle marking and that they would borrow ABF's calibration block in the interim.

ABF Fabrication Manager David Williams stated that ZPMC has asked them if they could begin welding stiffener plates on the 89m Tower Mock-up that did not have any CJP portion. Mr. Lowry responded that from a contractual perspective the CJP and PJP joints were different types of welds. ABF will discuss internally.

ZPMC asked about the status of the Channel and Angle material for the Tower Mock-ups. QA confirmed receipt of the MTR's from ZPMC and stated verification could begin whenever ZPMC was ready.

Mr. Lawton discussed an RFI regarding fine grain practice and grain size for A500 grade B material that ABF is considering submitting. Mr. Lowry stated that this requirement related to A709 material and that the decision could be made on site.

Mr. Lawton discussed an RFI regarding changes ZPMC would like to make in some weld details. Mr. Lowry stated that there is a mechanism that allows ABF and Caltrans to agree and document such changes such on-site, and provide the scanned changes to Caltrans at Pier 7.

Mr. Lawton asked Caltrans to comment on ZPMC's resolution to the NCR regarding welding of the Shear Link flanges with the incorrect electrode. The resolution detailed removal of the welds and re-welding correctly. QA stated the resolution appeared to address the issue regarding the actual weld. However, the resolution failed to address the issue of control of welding and implementing process controls to prevent future occurrence.

---

---

---

## DAILY PROJECT JOURNAL

( Continued Page 3 of 3 )

---

---

- |   |  |  |
|---|--|--|
| 5 | Other important observations           | ABF delivered the calibration test blocks for the Closed-rib PJP UT procedure.<br><br>QA Charlie Franco observed bending of the 150 degree bent flange plate for the 77m Tower Mock-up Diaphragm (type 3). |
| 6 | Quality Assurance Inspectors per shift | 6 Day Shift (Acuna, Brannon, Hasler, Hernandez, Viars on island, Franco at Wuxi Boiler)<br>3 Swing Shift (Berger, Dixon, Smith)  |
- 
- 

**Inspected By:** McClary, David

Quality Assurance Inspector

**Reviewed By:** Lowry, Patrick

QA Reviewer

---

---