

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-000348**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Dated:** 15-Oct-2007**Location:** Changxing Island, Shanghai, China**Submittals(New / Total):****CWR's:** 0 / 21**HSR's:** 0 / 6**NCR's:** 0 / 11

Item	Title	Detail
1	Nonconformance Reports (NCRs)	NCR-011 Welding of HPS Shear Link (for mock-ups) with incorrect electrode (70ksi instead of 90ksi).
2	Major component movement	<p>77m Tower Mock-up: Welding Shear Links (see NCR above)</p> <p>89m Tower Mock-up: Heat Straightening Interior Corner Plate Welding Shear Links (see NCR above)</p> <p>114m Tower Mock-up: No welding observed.</p> <p>Closed-rib Weld Trials: QA performed dimensional verification of Closed-rib joint geometry for the 5 closed-ribs. Tack welding to begin tomorrow morning, October 15, 2007.</p>
3	Meetings attended	<p>QA met with ABF and ZPMC at 1400 to discuss the schedule for the next two days:</p> <p>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).</p> <p>89m Tower Mock-up: Weld Skin Plate Butt Joints, Beveling Skin Plates.</p> <p>114m Tower Mock-up: Work pending resolution of stiffener to skin plate repair rate.</p>
4	Key conversations	<p>Caltrans met with ABF and ZPMC at 1300 to discuss issues related to fabrication:</p> <p>QA informed ABF and ZPMC of the NCR on the Shear Links for welding with the incorrect electrode. ZPMC was using an E7018 electrode to weld a</p>

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joint from HPS485W to Shear Link Grade 345W instead of the required E9018 electrode. QA also stated that the welding of the Shear Links began over the weekend and was not on the schedule. QA stated that if the schedule had indicated this welding, the appropriate personnel from ABF and ZPMC could have been involved in the welding to ensure mistakes like this were not made.

ABF confirmed the requirements regarding the length and spacing of the tack welds for the Closed-rib Weld Trial. The longest weld and shortest spacing on the trial will set the minimum weld length and maximum spacing to be used in production.

SMR Patrick Lowry spoke with ABF and ZPMC about the weld detail for the floorbeam to closed-rib connection. Caltrans had previously observed this weld being UT tested. This joint requires MT testing of the root and cover passes.

Mr. Lowry asked ABF and ZPMC if they were aware of certain weld details on the Tower that intentionally had no reinforcing fillet welds detailed. ABF stated they thought all T and Corner joints required the reinforcing fillet welds. Mr. Lowry stated he would identify the welds that did not require reinforcing fillets due to the possible interference with fitting of other members.

ZPMC informed Caltrans that they have begun using a new MT powder by Circle Safe NDT. Caltrans does not have any objection to the change, but did request to documentation of the operating temperature range. This is to ensure there is no issue with using the powder at elevated temperatures during the required MT of the root pass of partial joint penetration welds. ZPMC confirmed that material batches 20 and 22 have been submitted to Caltrans. QA confirmed MTR's were received around 1045 today and review was in process. ZPMC asked if ABF and Caltrans could look into ways to expedite the receiving of this material and other material ZPMC has on site. QA stated that inspectors are available on all shifts to verify MTR's, but that visual verification of material should take place during daylight hours due to safety concerns.

ZPMC stated that MTR's for rolled shapes were pending with ABF and that more material requires scheduling for re-tests of Charpy-V Notch impact tests.

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5	Other important observations	Caltrans met with ABF and ZPMC to discuss the start of OBG Bottom and Side Plate Fabrication. See daily journals of SMR Patrick Lowry and Ady Velasco for further details.
6	Quality Assurance Inspectors per shift	6 Day Shift (Acuna, Brannon, Franco, Viars on island, Dixon and Hernandez at test labs in Shanghai) 3 Swing Shift (Hasler, Smith)
7	Logistics	ZPMC night shift work is currently suspended and is not scheduled to resume until the issues with weld quality on the skin plate to stiffener plate CJP welds is resolved Current work hours are 7am to 7pm.

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**Inspected By:** McClary, David

Quality Assurance Inspector

**Reviewed By:** Lowry, Patrick

QA Reviewer