

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 #: 70.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-008790**Date Inspected:** 28-Aug-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1630**Contractor:** Japan Steel Works**Location:** Muroran, Japan**CWI Name:** Chung Fu Kuan**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower, Jacking, and Deviation Saddles**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. Art Peterson was present during the times noted above for observations relative to the work being performed in Fabrication shop #4 and the Foundry at Japan Steel Works.

Fabrication Shop #4:

Grinding Operation in-process on Saddle: Tower Saddle Segment T1-3

The QA Inspector observed JSW personnel performing the grinding operation on the excess material located on the edge of the rib plates where the temporary attachments were welded to the edge of the rib plate. The QA Inspector observed that the grinding operation was in-process on the edge of the ribs at the end of the QA Inspectors' shift.

NDT Operation completed on Saddle: West Deviation Saddle Segment W2-W3

The QA Inspector observed that Nikko Inspection Services (NIS) Quality Control (QC) NDT Inspector Mr. R. Kumagai (#132) completed the magnetic particle test (MPT) inspection (dry method) on the partial-joint penetration (PJP) groove welds on the rib plate (built-up section) to rib (cast section) and the stem plate (built-up section) to stem (cast section) prior to the final post weld heat treatment (PWHT) stress relief operation of west deviation saddle segment W2-W3. The next operation to be performed on west deviation saddle segment W2-W3 is the final PWHT stress relief operation.

Fillet Weld Operation in-process on Pipe Sleeves for the West Deviation and West Jacking Saddles

The QA Inspector observed the fillet weld operation on the ASTM A709M Grade 345 steel flange fit-up to the

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ASTM A106 (2") schedule 80 pipe to the lengths of (1008.7), (1019.0), and (1020.7) mm (+ 0 / - 3) for the pipe sleeves on the west deviation and the west jacking saddles. The QA Inspector observed Quality Control (QC) Inspector Mr. Chung Fu Kuan verify prior to and during the fillet weld operation that the minimum preheat temperature of 110 degrees Celsius was maintained and the welding parameters of JSW welding personnel Mr. K. Nakasato (91-2247) were in compliance with WPS SJ-3177-5 per the SMAW process in the (2F and 3F) horizontal and vertical positions using (4.0) mm diameter LB52 electrode. The QA Inspector observed that the fillet weld operation was in-process on the pipe sleeves at the end of the QA Inspectors' shift.

Foundry:

NDT Operation pending on Saddle: East Saddle E2-E1 (cast saddle)

The QA Inspector observed that the JSW personnel were in preparation in performing the blast cleaning operation on east saddle E2-E1 prior to performing the non-destructive testing (NDT) operation magnetic particle test (MPT) inspection by the (wet method) on 100% of the interior and exterior of the east saddle on areas designated in JSW's Manufacturers Procedure Plan (MPP) as Level 1 areas and on the design drawings as Level 1 areas and the NDT operation ultrasonic test (UT) inspection only on the classified major excavation repair welds and classified minor excavation repair welds.

NDT Operation in-process on Cast Saddle: West Jacking Saddle

The QA Inspector observed Nikko Inspection Services (NIS) Quality Control (QC) Non-Destructive Testing (NDT) Inspector Mr. A. Seino (#82) performing the liquid penetrant test (PT) re-inspection on the ground out excavated areas- (4th time) to ensure the complete removal of defects at various locations on the outside of the trough section, stem section and rib sections of the west jacking saddle. The PT inspection is being performed first on the excavated areas prior to the magnetic particle test (MPT) inspection by the (wet method) as per JSW's manufacturers procedure plan (MPP) for the west jacking saddle. The QA Inspector observed that the PT inspection was in-process on the excavated areas at the end of the QA Inspectors' shift.

Unless otherwise noted, all observations reported on this date appeared to be in general compliance with the applicable contract specifications.

Summary of Conversations:

No significant conversations were reported on this date.

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 Nina Choy at (510) 385-5910, who represents the Office of Structural Materials for your project.

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| Inspected By: | Peterson, Art | Quality Assurance Inspector |
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| Reviewed By: | Guest, Kittric | QA Reviewer |
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