

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 #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028384**Date Inspected:** 11-Sep-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** As noted below.**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 / OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) William Clifford was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

In Process Visual Inspection

This QA randomly observed ABF/JV qualified welder Alex Blanco #9650 performing Shielded Metal Arc Welding (SMAW) with 3.2mm" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification's (WPS) ABF-WPS-D15-1040A. The joint being welded was designated as 12E-113.5-E2.1-BW1.

During welding, ABF Quality Control (QC) Salvador Moreno was noted monitoring the welding parameters.

This QA randomly observed ABF/JV qualified welder Deli Zhang #4735 performing Shielded Metal Arc Welding (SMAW) with 3.2mm" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification's (WPS) ABF-WPS-D15-1040A. The joint being welded was designated as 12E-111.5-PS3.

During welding, ABF Quality Control (QC) Salvador Moreno was noted monitoring the welding parameters.

Incident Report

In-process welding of Orthotropic Box Girder (OBG) Bottom Web component was observed to be welded using

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ceramic backing:

-ABF/JV welding personnel performed Shielded Metal Arc Welding (SMAW) without a Welding Procedure Specification (WPS) approved for the use of ceramic backing.

-The member affected is identified as 12E-pp112-E2.1-BW1.

Applicable reference:

AWS D1.5-2002 section 1.9; All production welding shall be performed in conformance with the provisions of an approved Welding Procedure Specification (WPS), which is based upon successful test results as recorded in a Procedure Qualification Record (PQR) unless qualified in conformance with 1.3.1.

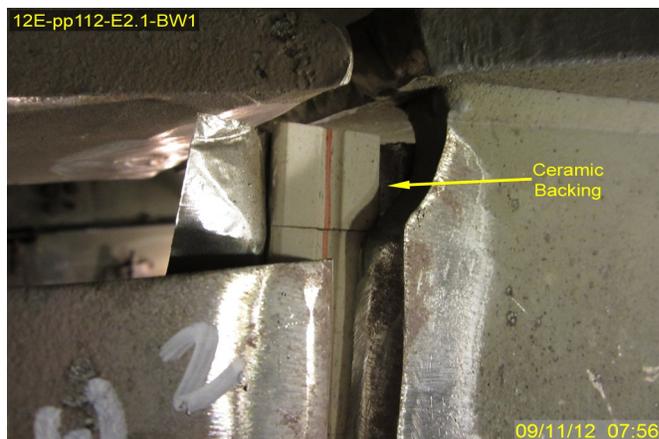
AWS D1.5-2002 section 3.13.6; Welds made against backing other than base metal or approved low-hydrogen weld metal shall be subject to WPS qualification testing under the provisions of 5.13 and approval by the Engineer.

ESW RWR Tracking

This QA was instructed by Task Leader Bill Levell to generate a spread sheet for the tracking of Request for Weld Repair (RWR) forms submitted by ABF for the repair of Electroslag Welds located at the base of the Tower.

This assigned task requires review of all submitted RWR's as well as review of approved QA TL-6031 report forms applicable to this welding, testing, and repair. This QA used the balance of time not allocated for in-process inspection and testing to work on this task.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

Conversations were relevant to work performed.

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 Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

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Inspected By: Clifford, William

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer