

**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-026676**Date Inspected:** 09-Nov-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Fred Von Hoff**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:** OBG Sections**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

**Orthotropic Bridge Girder (OBG) Sections:**

14E-PP128-E3 – Lifting Lug Hole (LLH) LLH #3 and #4: According to the documents being used by QC personnel these welds are designated as being a Seismographic Performance Critical Member (SPCM). This QA Inspector was informed by QC Inspector Fred Von Hoff these welds had been welded the previous day by ABF welding personnel Richard Garcia (#5892). This QA Inspector observed QC Inspector Fred Von Hoff perform a visual inspection on the bottom side of these welds and was informed cleaning, additional grinding and possibly welding to correct undercut may need to be performed. This QA Inspector performed a random visual verification and concurred. This QA Inspector observed that no further work appeared to occur at this location this date.

14E-PP128-E4- Lifting Lug Hole (LLH) LLH #1 and #2: According to the documents being used by QC personnel these welds are designated as being a Seismographic Performance Critical Member (SPCM). QC Inspector Fred Von Hoff informed this QA Inspector had performed and accepted the VT and MT on the bottom side of these welds. This QA Inspector performed a visual verification and the work appeared to comply with the contract requirements.

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14E-PP128-E4 – Lifting Lug Hole (LLH) LLH #3 and #4: According to the documents being used by QC personnel these welds are designated as being a Seismographic Performance Critical Member (SPCM). This QA Inspector observed ABF welding personnel Salvador Sandoval (#2202) setting up to perform Shielded Metal Arc Welding (SMAW) at this location this date inside the OBG section. This QA Inspector performed a verification of the preheat temperature prior to welding and observed the temperature was greater than 150°F. This QA Inspector observed the following welding parameters were verified by QC Inspector Fred Von Hoff; 135 amperes. This QA Inspector observed a 3.2 mm diameter E7018H4R electrode was being used in the overhead (4G) position. The welding observed by this QA Inspector appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1050-CU being used by the QC Inspector. See photo below. This QA Inspector confirmed with QC Inspector Fred Von Hoff a visual and Magnetic Particle Testing (MT) had been performed and accepted on the back gouged section of the weld joint. This QA Inspector observed welding appeared to have been completed at this location this shift.

14E-PP126.7-E3.7 – Ventilation Hole: According to the documents being used by QC personnel these welds are designated as being a Seismographic Performance Critical Member (SPCM). This QA Inspector observed ABF welding personnel Salvador Sandoval (#2202) setting up to use the SMAW process at this location outside the OBG section. This QA Inspector observed a hand held gas torch was used for preheating the base metal and performed a verification of the preheat temperature prior to welding and observed the temperature was greater than 150°F. This QA Inspector observed the following welding parameters were verified by QC Inspector Fred Von Hoff; 182 amperes. This QA Inspector observed a 4.0 mm diameter E7018H4R electrode was being used in the flat (1G) position. The welding observed by this QA Inspector appeared to comply with ABF-WPS-D15-1050-CU being used by the QC Inspector. This QA Inspector observed welding had been previously performed at this location and was informed by QC Inspector Fred Von Hoff ABF welding personnel Salvador Sandoval (#2202) had started welding at this location the previous date. This QA Inspector observed that welding was not completed this date.

This QA Inspector verbally informed QA SPCM Lead Inspector, Daniel Reyes, of the issues noted in this report for compliance therefore for further details of issues of significance see QA SPCM Lead Inspector, Daniel Reyes, Daily Inspection Report (6031) for this date.

### **Summary of Conversations:**

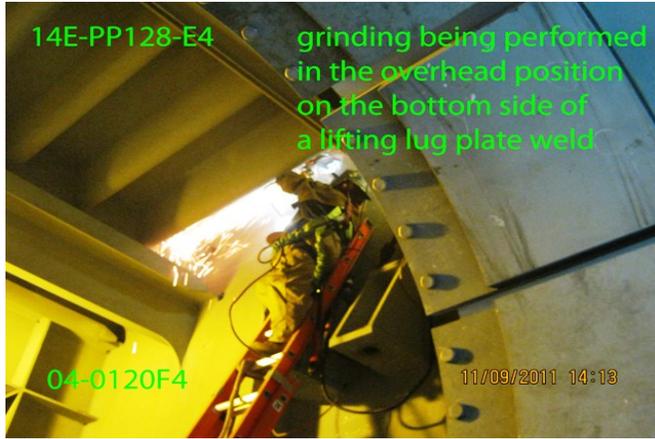
This QA Inspector had general conversations with American Bridge/Fluor (ABF) and Caltrans personnel during this shift. Except as described above and noted above there were no notable conversations.

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

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<b>Inspected By:</b>	Hager,Craig	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell,Bill	QA Reviewer

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