

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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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-028187**Date Inspected:** 15-Aug-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** jobsite

CWI Name: Fred Michaels
Inspected CWI report: Yes No N/A
Electrode to specification: Yes No N/A
Qualified Welders: Yes No N/A
Approved Drawings: Yes No N/A

CWI Present: Yes No
Rod Oven in Use: Yes No N/A
Weld Procedures Followed: Yes No N/A
Verified Joint Fit-up: Yes No N/A
Approved WPS: Yes No N/A
Delayed / Cancelled: Yes No N/A
Component: OBG

Bridge No: 34-0006**Summary of Items Observed:**

Quality Assurance inspector (QA) Matthew Daggett was at the American Bridge/Fluor (ABF) job site at the San Francisco/Oakland Bay Bridge 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:

1. Welding of 13W/14W Plate G
2. Back gouging 12E-PP116.5-E5 Deck Access Hole Face B
3. Welding 12W-PP116.5-W5 Deck Access Hole Face B
4. Deck Access Hole Tracking Sheet Verification

13W/14W Plate G

Due to the contractor choosing to weld prior to getting engineer approval for the poor fit up an Incident Report was issued on the above-mentioned welded splice. At the time of this report the joint exhibited a 3mm to 5mm offset with a maximum root opening of 20mm.

The QA inspector from observed the in process Shield Metal Arc Welding being performed by ABF welding personnel Jim Quan Huang (9340) on 13W/14W Plate G vertical splice. The welder spent the shift depositing the fill passes with approximately 100% being completed at the end of the shift. QC inspector Fred Michels was noted

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to be present in order to monitor the progress and ensure the welding was within the established Welding Procedure Specification (WPS) noted as ABF-WPS-D15-1040-C and supporting Procedure Qualification Records (PQR). Prior to initiating the welding at this location the QC inspector observed the preheat temperature, using a Raytek non-contact Thermometer, was sufficient and compliant to the above-mentioned WPS. Using a Tempil Stick, (temperature indicating crayon)the preheat and interpass temperature was then verified by this QA inspector to be greater than 150F and the parameters, using a Fluke brand Tong style meter, was verified to be 160 amps. See digital photo included in the body of this report for general information.

Back gouging 12E-PP116.5-E5 Deck Access Hole Face B

The QA inspector intermittently observed the in process Shield Metal Arc Welding being performed by ABF welding personnel Roby Smith on Face B of Deck Access Hole 12E-116.5-E5. The welder spent the shift depositing the root passes and fill passes with approximately 80% being completed at the end of the shift. QC inspector Chris Concha was noted to be present in order to monitor the progress and ensure the welding was within the established Welding Procedure Specification (WPS) noted as ABF-WPS-D15-1110-A and supporting Procedure Qualification Records (PQR). Prior to initiating the welding at this location the QC inspector observed the preheat temperature, using a Raytek non-contact Thermometer, was sufficient and compliant to the above-mentioned WPS. Using a Tempil Stick, (temperature indicating crayon)the preheat and interpass temperature was then verified by this QA inspector to be greater than 150F and the parameters, using a Fluke brand Tong style meter, was verified to be 150 amps. See digital photo included in the body of this report for general information.

Welding 12W-PP116.5-W5 Deck Access Hole Face B

The QA inspector intermittently observed the in process Shield Metal Arc Welding being performed by ABF welding personnel Roby Smith on Face B of Deck Access Hole 12W-116.5-W5. The welder spent the shift depositing the root passes and fill passes with approximately 80% being completed at the end of the shift. QC inspector Chris Concha was noted to be present in order to monitor the progress and ensure the welding was within the established Welding Procedure Specification (WPS) noted as ABF-WPS-D15-1110-A and supporting Procedure Qualification Records (PQR). Prior to initiating the welding at this location the QC inspector observed the preheat temperature, using a Raytek non-contact Thermometer, was sufficient and compliant to the above-mentioned WPS. Using a Tempil Stick, (temperature indicating crayon)the preheat and interpass temperature was then verified by this QA inspector to be greater than 150F and the parameters, using a Fluke brand Tong style meter, was verified to be 160 amps. See digital photo included in the body of this report for general information.

Deck Access Hole Tracking Sheet Verification

This QAI at the request of Danny Reyes verified the status of all Deck Access Holes and corresponding stiffeners. Status was recorded on a spreadsheet for later reference. As stated in this report two access holes are in progress.

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Summary of Conversations:

There were general conversations with Quality Control Inspector Fred Michaels, at the start of the shift regarding the location of welding, inspection personnel scheduled for this shift. All observations were relayed to Danny Reyes and Bill Levell.

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.

Inspected By: Daggett, Matt

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer