

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 #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026695**Date Inspected:** 12-Nov-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**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 Segments**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Art Peterson arrived on 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 the welding operations performed by American Bridge Fluor (ABF) welding personnel. The following observations on this date were:

OBG Deck Plate "A" Lifting Lug Hole (LLH) Repair Welding on OBG Segment 14E:

This QA Inspector randomly observed ABF welder Mr. Salvador Sandoval (Welder ID 2202) performing the repair weld operation at (2) locations on LLH insert plate #3 per the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position on the interior side of OBG 14 East Deck Plate "A" at Panel Point (PP) 128 - (14EPP128E4-LLH-3). The reason for the repair weld operation was that (2) ultrasonic rejectable indications were detected. The thickness of the LLH insert plate #3 was 20 mm. This QA Inspector observed QC Inspector Mr. Fred Von Hoff verify prior to the start of the repair weld operation that the welding parameters (Amps, Volts and Travel Speed) and the preheat temperature of 225 degrees F were established and in accordance with WPS-D1. 5-1004 Repair for Seismic Performance Critical Member (SPCM) of Deck Plate "A" on OBG Segment 14 East. This QA Inspector observed that ABF welder Mr. Sandoval completed the repair weld operation of (2) groove weld excavations on the interior side of LLH insert plate ##3. Afterwards, the ABF personnel placed the heat induction blanket on the exterior side of Deck Plate "A" and the temperature was being ramped up between 315 and 600 degrees F to start the post heat treatment (PHT) operation on LLH insert plate #3. The required time of the PHT operation was for one (1) hour.

OBG Deck Plate "A" Vent Hole Welding on OBG Segment 14E:

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This QA Inspector randomly observed ABF welder Mr. Kevin Kananen (Welder ID 6521) performing the in-process (fill and cover pass) welding per the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position on a Vent Hole insert plate. The Vent Hole insert plate was located on Deck Plate "A" of OBG 14 East at Panel Point (PP) 126.7 Grid line E3.2. The thickness of the Vent Hole insert plate was 20 mm. Afterwards, this QA Inspector observed ABF QC Inspector Mr. Fred Von Hoff verify prior to the start of the (fill and cover pass) weld operation that the welding parameters (Amps, Volts and Travel Speed) and the preheat temperature of 125 degrees F was in accordance with WPS-1050A-CU for Seismic Performance Critical Member (SPCM) of Deck Plate "A" on OBG Segment 14 East.

This QA Inspector observed that ABF welder Mr. Kananen completed the (fill and cover pass) weld operation on the exterior side only of the Vent Hole. After QC Inspector Mr. Fred Von Hoff performed the preliminary visual inspection on the exterior side of Deck Plate A Vent Hole insert plate weld located at PP126.7 and the visual inspection appeared to be in general compliance with the contract specifications, Afterwards, Mr. Kananen prepared to weld the interior side - (2nd Side) of the Vent Hole at the aforementioned panel point and grid line at the end of this QA Inspectors' shift.

OBG Deck Plate "A" Vent Hole Welding on OBG Segment 14E:

This QA Inspector randomly observed ABF welder Mr. Todd Jackson (Welder ID 4639) performing the in-process (root,fill and cover pass) welding per the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position on a Vent Hole insert plate. The Vent Hole insert plate was located on Deck Plate "A" of OBG 14 East at Panel Point (PP) 126.7 Grid line 4.2. The thickness of the Vent Hole insert plate was 20 mm. Afterwards, this QA Inspector observed ABF QC Inspector Mr. Fred Von Hoff verify prior to the start of the (root, fill and cover pass) weld operation that the welding parameters (Amps, Volts and Travel Speed) and the preheat temperature of 125 degrees F was in accordance with WPS-1050A-CU for Seismic Performance Critical Member (SPCM) of Deck Plate "A" on OBG Segment 14 East.

This QA Inspector observed that ABF welder Mr. Todd Jackson completed the (root and fill pass) weld operation and was in-process on the (cover pass) weld operation on the exterior side only of the Vent Hole at PP126.7 at Grid line 4.2 at the end of this QA Inspectors' shift.

OBG Deck Plate "A" Vent Hole Welding on OBG Segment 14E:

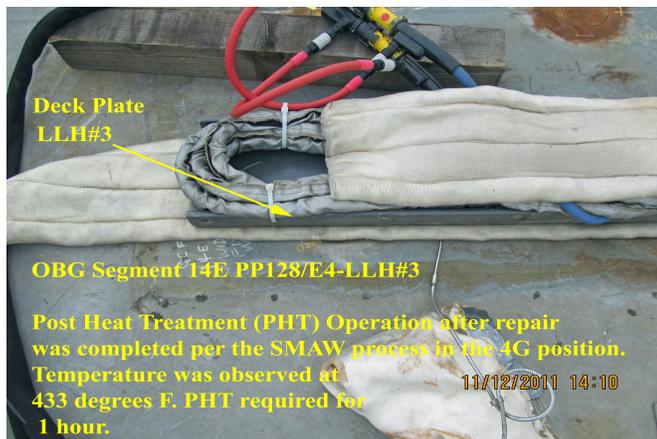
This QA Inspector randomly observed ABF welder Mr. Salvador Sandoval (Welder ID 2202) performing the in-process (root pass) welding per the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position on a Vent Hole insert plate. The Vent Hole insert plate was located on Deck Plate "A" of OBG 14 East at Panel Point (PP) 126.2 Grid line 3.7. The thickness of the Vent Hole insert plate was 20 mm. Afterwards, this QA Inspector observed ABF QC Inspector Mr. Fred Von Hoff verify prior to the start of the (root pass) weld operation that the welding parameters (Amps, Volts and Travel Speed) and the preheat temperature of 125 degrees F was in accordance with WPS-1050A-CU for Seismic Performance Critical Member of Deck Plate "A" on OBG Segment 14 East.

This QA Inspector observed that ABF welder Mr. Salvador Sandoval completed the (root pass) weld operation on the exterior side only of the Vent Hole at PP126.2 at Grid line 3.7 at the end of this QA Inspectors' shift.

The welding operations observed on this date appeared to be in general compliance with WPS-1050A-CU and the contract specifications.

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Summary of Conversations:

This QA Inspector met with QC Inspector Mr. Fred Von Hoff to discuss the depths of the (2) groove weld excavations on the interior side of Deck Plate "A" from the ultrasonic rejectable indications that were detected on OBG Segment 14 East at PP128 Grid line E4 of LLH insert plate weld #3. The Deck Plate "A" on OBG Segment 14 East is designated as an SPCM member. Mr. Fred Von Hoff informed this QA Inspector that the depths of the groove weld excavations on the interior side of Lifting Lug Insert Plate weld #3 were three (3) mm and eleven (11) mm. This QA Inspector needed to verify the depths of the groove weld excavations to ensure that the depths of the groove weld excavations did not exceed 65% of the weld size. The thickness of Deck Plate "A" was 20 mm and 65 percent of the Deck Plate thickness is 13 mm therefore the two (2) groove weld excavations were classified as a non-critical weld repair.

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: Peterson, Art

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer