

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-029492**Date Inspected:** 27-Apr-2013**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:** Andrew Keech, Bernie Docena**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:** SAS Tower**Summary of Items Observed:**

Caltrans Quality Assurance Inspector (QA) Joe Adame was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island 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:

Ultrasonic Testing of Tower Electroslag Welds (ESW)

RWR-201304-009

ESW N-041, Location N- Face A, B:

QA performed Ultrasonic Testing (UT) on Tower Electroslag Complete Joint Penetration (CJP) shear plate weld designated as "ESW N" face A, B. Location (Original Y=2080, & Y=1800~2400) of this weld was inspected using this testing method.

No recordable indications were observed in repair or HAZ areas at the time of testing.

The findings have been joint verified by Quality Control inspection personnel at this time. QA performed UT of weld designated as ESW "N" in accordance with the approved supplemental procedure for confirmation and evaluation of planar type defects. Tandem report for work performed on this date will be completed by QC technician and signed by both QA/QC parties. Items listed on tandem report reflect indications agreed upon by QA/QC. Mr. Docena and the QA Inspector also performed MT testing of the weld repair surfaces prior to UT inspection. Please see TL-6027 & TL-6028 for additional details on items inspected.

In Process Visual Inspection

RWR201304-017

ESW S-043, "T"-Face B:

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This QA observed, at random intervals, ABF/JV welder Chris Bruce (WID-8901) performing Shielded Metal Arc Welding (SMAW) with 4.0mm diameter E7018-MH4-R electrode and in accordance with ABF Welding Procedure Specification (WPS) ABF-WPS-D1.5-1000R-03. Prior to welding preheat was being maintained to over 300° degrees Fahrenheit using a Miller ProHeat 35 unit with heat induction blankets. Welding was performed on tower Electroslag Weld "ESW" designated as T- Face B, Original Y=2100mm. ABF Quality Control Inspector (QC) Bernie Docena was observed monitoring the welding parameters throughout the shift. The repair area will be inspected with UT/MT after the required cooling time of 48 hrs as described in section 12 AWS D1.5-02.

In Process Visual Inspection

RWR 201304-14

ESW N-041, ESW N-Face A:

QA observed at random intervals, ABF/JV welder Mike Jimenez (WID-4671) performing carbon arc air gouging of ESW welds for defect removal on ESW weld designated as V. Location of excavation was noted as:

Face A

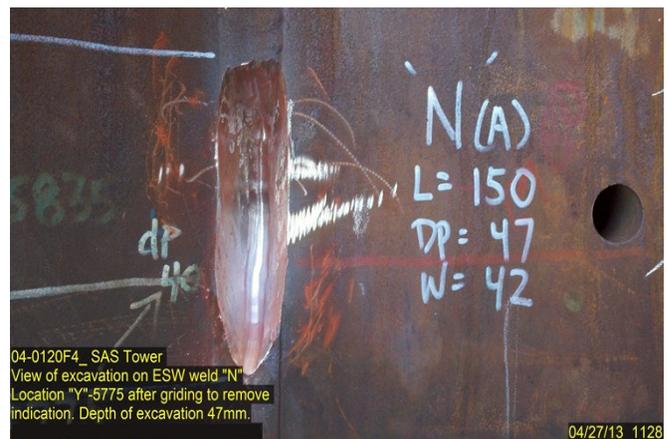
Y= (Original) 5775mm. Excavated 5700~5850.

L= 150mm

W= 42mm

D= 42mm initially, 47mm after acceptance

The QA Inspector and ABF Quality Control Inspector (QC) Bernie Docena were informed by WID-4671 that he had observed a planar type indication at approx 42mm deep during excavation. QA measured the indication at 40mm long. The QC Inspector stated that the indication appeared to be non-fusion type indication. WID-4671 performed additional excavating until the indication appeared to be removed at 47 mm deep. After grinding to bright the QC Inspector performed MT testing of the excavation to ensure all discontinuities were removed prior to welding. The QA Inspector also performed MT inspection of the excavation and did not observe any weld defects. Welding commenced on the repair at approx. 1300 and is in-process. The repair area will be reinspected with UT/MT after welding and the required cooling time of 48 hrs as detailed in section 12. Please see TL-6028 for additional details on items inspected.



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Summary of Conversations:

Only general conversations with ABF/JV QC NDT personnel relevant to testing and work performed during this shift.

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.

Inspected By:	Adame,Joe	Quality Assurance Inspector
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Reviewed By:	Mertz,Robert	QA Reviewer
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