

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-028774**Date Inspected:** 20-Nov-2012**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:** Jesse Cayabyab**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 ESW**Summary of Items Observed:**

Quality Assurance Inspector (QAI) Rodney Patterson 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:

Tower ESW "V"

This QA observed ABF/JV welding personnel performing an exploratory excavation of an Electroslag Weld ESW "V" from face B. The exploratory excavation was performed to determine validity a 6db drop technique for the determination of height, on the linear recordable indications present in the electro slag welds. A total of six indications from the ultrasonic test report were excavated in one single excavation at 1~2mm intervals by the use of a grinder from Y=970~1220 for indications that showed the following ultrasonic response on the ABF QC test report;

Y=1030 AWS db Rating +16, Depth 26mm (from face B), 6db drop height of 6mm.

Y=1050 AWS db Rating +14, Depth 75mm (from face B), 6db drop height of 25mm.

Y=1055 AWS db Rating +19, Depth 23mm (from face B), 6db drop height of 6mm.

Y=1090 AWS db Rating +21, Depth 30mm (from face B), 6db drop height of 11mm.

Y=1100 AWS db Rating +4, Depth 55mm (from face B), 6db drop height of 6mm.

Y=1130 AWS db Rating +10, Depth 24mm (from face B), 6db drop height of 6mm.

Magnetic Particle Testing was performed by both QC and QA once the grinding was achieved to the sought depth. The starting depth of excavation on this date was a continuation from the previous shift. The results of the exploratory excavations are as follows;

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

28mm in depth– One longitudinal indication found 2mm in length at Y=1010

29mm in depth– Indication at Y=1010 remains 2mm in length

30mm in depth– Indication at Y=1010 remains 2mm in length

31mm in depth– Indication at Y=1010 remains 2mm in length

32mm in depth– Unable to detect indication at Y=1010

Transverse indications discovered at Y=1040 and 1130 measuring 10mm and 4mm in length respectively.

33mm in depth–Transverse indications at Y=1040 and 1130 remain at 10mm and 4mm in length respectively.

34mm in depth– Transverse indication at Y=1040 and Y=1130 reduce in size to 3mm.

35mm in depth– Unable to detect indication at Y=1040. Transverse indication at Y=1130 remains at 3mm in length.

36mm in depth– Unable to detect indication at Y=1130. Transverse indication discovered at Y=1090 with a length of 2mm.

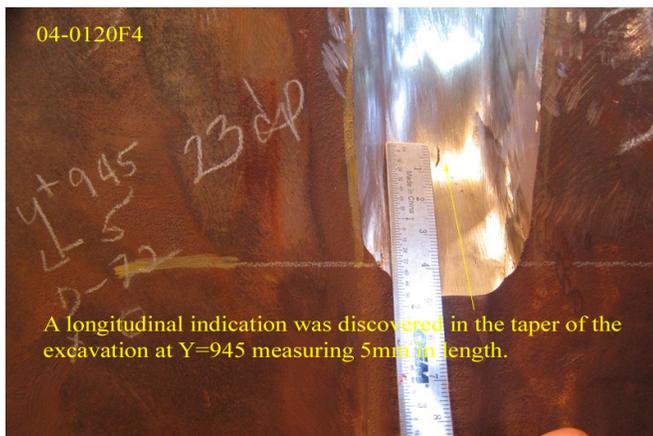
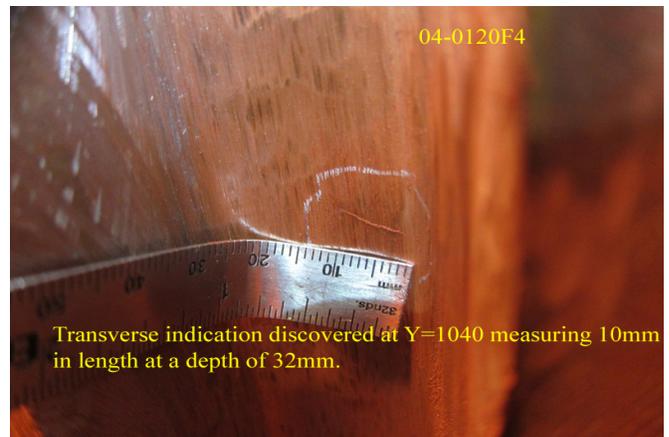
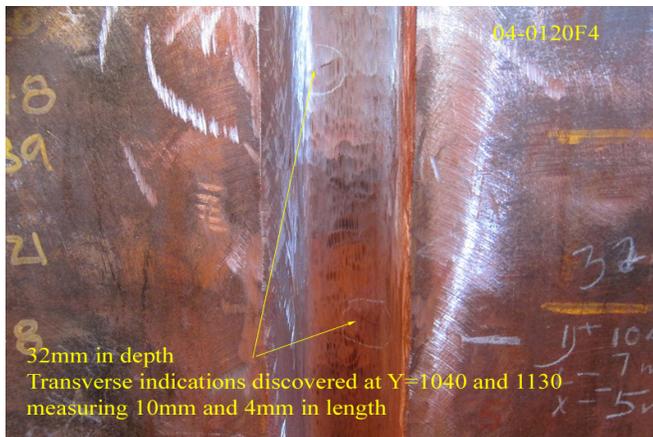
A longitudinal indication was discovered in the taper of the excavation at Y=945 measuring 5mm in length. The indication was ground from a depth of 22mm~26mm until ABF QC was unable to detect with magnetic particle testing.

The exploratory excavations at this location will be continued on the following shift.

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

Summary of Conversations:

Conversations relevant to the work being performed.



WELDING INSPECTION REPORT

(Continued Page 3 of 3)

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:	Patterson,Rodney	Quality Assurance Inspector
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Reviewed By:	Reyes,Danny	QA Reviewer
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