

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 #: xx.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029386**Date Inspected:** 05-Apr-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:****Location:** On Site

CWI Name:	N/A	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 Electroslag Welds	

Summary of Items Observed:

The Caltrans OSM Quality Assurance (QA) Inspector Art Peterson was present during the times noted above to perform ultrasonic inspection verification on Electroslag welds inside of the Tower. The purpose of the ultrasonic inspection was for the detection of planar indications utilizing both the pulse echo (PE) technique and the pitch and catch (PC) technique for further discontinuity evaluation in the middle half of the material thickness on electroslag welds where previous discontinuities were detected by the single pulse echo search unit. The data collected from utilizing the pitch and catch technique is for information only and the ultrasonic test (UT) inspection was performed as a joint inspection with ABF/JV Quality Control (QC) Smith Emery NDT personnel. The summary of the joint ultrasonic inspection performed on this date was as follows:

Tower Electroslag Weld Identification: E-045 90° Tee

Electroslag Weld: Weld #F - Shear Plate – “A” side only of weld.

Type of Joint: T (60) mm thick weld.

From Y Location: (6960) mm.

Results: (1) planar Indication with no planar height characteristics – “A” side PE Decibel rating (+12) / PC Decibel rating (+18).

Tower Electroslag Weld Identification: E-045 90° Tee

Electroslag Weld: Weld #F - Shear Plate – “A” side only of weld.

Type of Joint: T (60) mm thick weld.

From Y Location: (7210) mm.

Results: (1) planar Indication with planar height characteristics – “A” side PE Decibel rating (+4) / PC Decibel

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rating (-3).

Tower Electroslag Weld Identification: E-045 90° Tee

Electroslag Weld: Weld #F - Shear Plate – “B” side only of weld.

Type of Joint: T (60) mm thick weld.

From Y Location: (6910) mm.

Results: (1) planar Indication with no planar height characteristics – “B” side PE Decibel rating (+10) / PC Decibel rating (+9).

ABF Standard Reference Block: Top Quarter Notch – Opposite Side of Block to augment Pitch and Catch Distance requirement.

ABF Quality Control NDT Inspector Jesse Cayabyab: Initial calibration off of IIW Block with (2) two transducer cables plugged in the machine.

Transducer: Stresstel; 2.25 MHz

Top Quarter Notch: PE Decibel rating (+6) / PC Decibel rating (-13).

ABF Standard Reference Block: Top Quarter Notch – Opposite Side of Block to augment Pitch and Catch Distance requirement.

ABF Quality Control NDT Inspector Jesse Cayabyab: Initial calibration off of IIW Block with (1) one transducer cable plugged in the machine.

Transducer: Stresstel; 2.25 MHz

Top Quarter Notch: PE Decibel rating (-0) / PC Decibel rating (-13).

ABF Standard Reference Block: Top Quarter Notch – Opposite Side of Block to augment Pitch and Catch Distance requirement.

Caltrans Quality Assurance NDT Inspector Art Peterson: Initial calibration off of IIW Block with (2) two transducer cables plugged in the machine.

Transducer: Benchmark; 2.25 MHz

Top Quarter Notch: PE Decibel rating (+5) / PC Decibel rating (-20).

ABF Standard Reference Block: Top Quarter Notch – Opposite Side of Block to augment Pitch and Catch Distance requirement.

Caltrans Quality Assurance NDT Inspector Art Peterson: Initial calibration off of IIW Block with (1) one transducer cable plugged in the machine.

Transducer: Benchmark; 2.25 MHz

Top Quarter Notch: PE Decibel rating (+6) / PC Decibel rating (-19).

Summary of Conversations:

Only general conversations with ABF/JV QC NDT personnel regarding the ultrasonic inspection utilizing the pulse echo and pitch and catch technique on Electroslag welds inside of the Tower on this date.

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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 Gary Thomas, 916-764-6027, who represents the Office of Structural Materials for your project.

Inspected By:	Peterson, Art	Quality Assurance Inspector
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Reviewed By:	Mertz, Robert	QA Reviewer
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