

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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018980**Date Inspected:** 23-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

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 & OBG Components	

Summary of Items Observed:

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

BAY#10

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 007898

Magnetic Particle Testing (MT)

This QA inspector performed MT of the area previously tested and accepted by ZPMC Quality Control personnel.

This QA Inspector generated an MT report for this date. The member is identified as OBG and Tower Components. The weld designation reviewed as follows:

BIKE PATH

BK004A3-030-073; 084

BK004A1-030-030~037; 010; 006; 008

BK004A-030-MEP-031~035

BK004A-030-MEP-025~028; 001; 010; 016

TOWER LIFT-6, TOWER HEAD COMPONENT

NSD1 – FESA6 – 3 – 8; 11 – Green Tag#13927

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

SSD1 – FESA6 – 1 – 8; 15 – Green Tag#13929

This QA Inspector observed the following work not in compliance:

Description of Incident:

During the Caltrans Quality Assurance (QA) in-process observation on West tower lift-5, this QA Inspector discovered the following issue:

- ZPMC personnel performing base metal repair welding without removing the paint on west shaft skin 'B'.
- Location observed to be approximately 1700 mm from the top of the shaft.
- This member is Non-Seismic Performance Critical Member (SPCM).
- This component located at fabrication Bay#10.

Applicable reference:

AWS D1.5-2002, Section 3.2.1: "...Surfaces to be welded and surfaces adjacent to a weld shall also be free from loose or thick scale, slag, rust moisture, grease, and other foreign material that would prevent proper welding or produce objectionable fumes."

Standard Specifications-1999, Section 55-3.16: "... Surfaces of metal in contact shall be thoroughly cleaned of rust, mill scale, dirt, grease, paint or other material foreign to the metal before assembly."

For further information, please see the attached pictures below.

BAY#11

BLAST SHOP#1

This QA Inspector observed the following work in progress

During the External & Internal post-blast visual inspection on South tower Lift-5, this Quality Assurance Inspector's (QA) discovered the defects required welding and Magnetic particle testing on weld and base material at the following locations:

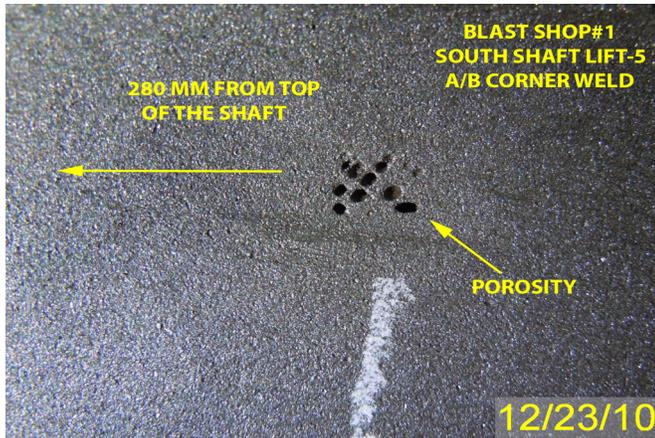
- 1) External: A/E corner weld– Porosity – 200 mm from top of the shaft.
- 2) External: A/E corner weld– Porosity – 1600 mm from top of the shaft.
- 3) External: Skin 'E' (Longitudinal stiffener) – Base material arc gouge– close to the weld of 2nd stiffener and 1100 mm from bottom of the shaft.
- 4) Internal: Under fill – between 2nd longitudinal and 2nd transverse stiffeners from skin 'E', 800 mm from top of the shaft.
- 5) External: A/B corner weld – Porosity – 280 mm from top of the shaft.

For further information, please see the attached pictures below.

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

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



Summary of Conversations:

No Relevant Conversations.

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 Thomas Ho- 15002048250, who represents the Office of Structural Materials for your project.

Inspected By: Kumar,Sandeep

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer