

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 MATERIALS ENGINEERING AND TESTING SERVICES
 Office of Structural Materials
 Quality Assurance and Source Inspection

Bay Area Branch

690 Walnut Ave., St. 150
 Vallejo, CA 94592-1133
 (707) 649-5453
 FAX: (707) 649-5493



Contract #: 04-0120E4
 Cty SF Rte 80 PM 13.4/13.8
 File # 1.25 B

QUALITY ASSURANCE - NONCONFORMANCE REPORT

Location: SFOBB E2/T1 Foundations

JOBSITE NCR

Date: 10-15-2007

Prime Contractor: Keiwit/FCI/Mason (KFM)-Joint Venture

NCR #210

Submitting Contractor: KFM

Type of problem: Loss of preheat/interpass temperature

Welding Concrete Other Welding: Curing: Procedural: Bridge No. 34-0006 L/RJoint fit-up: Coating: Other: Component: T1 FoundationProcedural: Procedural: Loss of Preheat/interpass Temperature at Piles 5-F3-4 and 7D1-2

Description of Non-Conformance: The Contractor (KFM) at 2100 failed to maintain preheat/interpass temperature at pile head connector plates 5-F3-4 and 7-D1-2. During the observation of the non-conformance, production welding was being performed. The interpass temperature of 250°F was not maintained on the piles starting from the top radius to a measured cumulative length of 2 meters (full length) within the weld zone. Random measurements were taken to verify the extent of the interpass temperature loss utilizing an infrared thermometer and temperature indicating markers and noted a temperature range between 210°F to 215°F for the length noted above for piles 5-F3-4 and 7-D1-2

Applicable reference: Caltrans Special Provisions, Section 10-1-1.31, Field Welding of the Pile/Sleeve Connection Plates, Line F

Who discovered the problem: Quality Assurance Inspectors Mike Garcia and Ken Bailey

Name of individual from Contractor notified: KFM Welding Supervisor Jim Belcher

Name of Caltrans Engineer notified: Aaron Prchlik, Assistant Structure Representative

Time and method of notification: Oct 15, 2007 verbal notification

QC Inspector's Name: KFM Quality Control Inspectors, Dan Smith, and Heydar Alakbarov

Was the QC Inspector aware of problem: no

Contractor's proposal to correct the problem: The Contractor, at the request of Caltrans Structure Representative Art Pannu, were to bring the base material back up the required minimum preheat/interpass temperature of 250° F utilizing a rosebud (torch) and prior to production welding commencing perform a magnetic particle testing.

Comments: This report is for the purpose of determining general 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 Ryan Smith, (858) 232-6799,, who represents the Office of Structural Materials for your project.

Inspected By: Mike Garcia

Quality Assurance Inspector

Reviewed By: Albert Carreon

Lead QA Reviewer

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DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program

333 Burma Rd.
Oakland, CA 94607
(510) 286-0538, (510) 286-0550 fax



Kiewit-FCI-Manson, JV
220 Burma Rd.
Oakland, CA 94607

October 22, 2007

Attn: Mr. Rich Bienek
Welding Quality Control Manager

Contract No. 04-0120E4
04-SF-80-13.4, 13.8
SAS T1 & E2 Foundations
SFOBB-ESSSP

Letter No. 05.003.01-003594

Subject: NCR - Kiewit-FCI-Manson, 10/15/07 (Failure to Maintain Preheat)

Dear Rich,

The Department issued a Non-conformance Report (NCR) at the SAS T1/E2 Foundations project site on October 15, 2007. The NCR was generated when the Contractor failed to maintain the preheat temperature as required by the Special Provisions, Section 10-1.31, Subsection "Field Welding of Pile/Sleeve Connector Plates," Line F, during welding of Pier T1 Pile Head Connection Plate (PHCP) at pile 5, welds F3 & 4, and pile 7, welds D1 & 2. QA verbally notified Mr. Jim Belcher, KFM General Welding Foreman, of this non-conformance on October 15, 2007.

The Department understands that the Contractor returned the weld to the minimum preheat temperature and that MT was performed on the in-place welds prior to resuming welding at these locations. The Department considers this NCR to be closed. However future instances of loss of preheat will be documented as necessary.

If you have any questions or need additional information, please contact Mark Vilcheck at (510) 286-0526.

Sincerely,

Mark Vilcheck
Structure Representative

For: Pedro J. Sanchez
Resident Engineer

cc: P. Sanchez
M. Woods
R. Smith

file: 05.003.01, 09.006.03

