

**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 13.4/13.80  
 File # 01 .25 B

**QUALITY ASSURANCE - NONCONFORMANCE REPORT**

Location: SFOBB Jobsite

JOBSITE NCR 

Date: 07/17/2007

Prime Contractor: Kiewit/FCI/Manson (KFM)

NCR #177

Submitting Contractor: KFM

**Type of problem:**

**Welding**  **Concrete**  **Other**   
**Welding:**  **Curing:**  **Procedural:**  **Bridge No.** 34-0006 L/R  
**Joint fit-up:**  **Coating:**  **Other:**  **Component:** T1 Foundation  
**Procedural:**  **Procedural:**

**Description of Non-Conformance:** The Contractor failed to maintain the preheat temperature during the welding of T1 pile head connection plate (PHCP) as required by Caltrans Special Provisions, Section 10-1.31, Field Welding of Pile/Sleeve Connection Plates, Line F. The loss in preheat occurred on PHCP pile 6, plate H, weld 4. There were several subsequent weld passes which were deposited prior to the loss of heat. The Contractor elected to leave the weld passes in place and perform magnetic particle testing, bring the weld up to the required minimum preheat, and commence welding. The QA Inspector verified the loss of pre-heat along the top 20 inches of the weld groove that was below the minimum specified temperature of 250 degrees Fahrenheit. The QA Inspector also verified the pre-heat temperature with a 225 degree Fahrenheit and a 200 degree Fahrenheit temperature indicating crayon. The QA Inspector determined that the pre-heat temperature was below 225 degrees Fahrenheit but above 200 degree Fahrenheit adjacent to the weld on the base metal material as well as inside the bevel face within the weld zone.

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

**Who discovered the problem:** Quality Assurance Inspector Edward Leach

**Name of individual from Contractor notified:** KFM General Welding Foreman Jim Belcher

**Time and method of notification:** 2215hrs-07/17/2007 – Verbal

**Name of Caltrans Engineer notified:** Caltrans Structures Representative; Saman Soheilifard

**Time and method of notification:** 0900hrs-07/18/2007 – Verbal by phone

**QC Inspector's Name:** QC Inspector Mark Bartholomew

**Was the QC Inspector aware of problem:** No

**Contractor's proposal to correct the problem:** None at this time.

**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: Edward Leach  Quality Assurance Inspector

Reviewed By: Albert Carreon  Lead QA Reviewer

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Reviewed By: Albert Carreon

Lead QA Reviewer

**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

Attn: Mr. Rich Bienek  
Welding Quality Control Manager

February 19, 2008

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

Letter No. 05.003.01-003870

Subject: NCRs - Kiewit-FCI-Manson, 7/14/07 and 07/17/0 (Failure to Maintain Preheat Temperature)

Dear Rich,

The Department notified the Contractor of the Non-conformance Reports (NCRs) of the loss of preheat at the SAS T1/E2 Foundations project site on July 14 and July 17 of 2007, in the Department's Letter Nos. 3359 and 3363. The Department understands that the Contractor returned the welds to the minimum preheat temperature and that MT was performed on the in-place welds prior to resuming welding. The Department considers the above NCRs closed.

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