

**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  
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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:** 10/15/2007**Prime Contractor:** Kiewit/FCI/Manson (KFM)**NCR #211****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 pre-heat 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 of preheat occurred on PHCP pile sleeve 7, plate A, weld 1 and 2, at the bottom weld radius and extended approximately 20 centimeters upwards. The pre-heat temperature within this zone was between 150 and 200 degrees Fahrenheit. There were several subsequent filler passes deposited over the weld root prior to the loss of heat.

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

**Who discovered the problem:** Quality Control Inspector, Dan Smith**Name of individual from Contractor notified:** KFM General Welding Foreman, Jim Belcher**Time and method of notification:** 1930hrs-10/15/07 – Verbal**Name of Caltrans Engineer notified:** Assistant Structure Representative, Mark Baker**Time and method of notification:** 1930hrs-10/15/2007 – Verbal**QC Inspector's Name:** QC Inspector Dan Smith**Was the QC Inspector aware of problem:** Yes

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**Contractor's proposal to correct the problem:** The contractor elected to leave the weld passes in place, bring the weld back up to the required minimum preheat temperature and perform magnetic particle testing before welding.

**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: Kenneth Riley

Quality Assurance Inspector

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

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. 05.003.01-003597

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 7, welds A1 & 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