

DEPARTMENT OF TRANSPORTATIONDIVISION 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:** 11/7/2007**Prime Contractor:** Kiewit/FCI/Manson (KFM)**NCR #216****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 5, plate F, weld 1 and 2, beginning at the bottom weld radius and extending approximately 25 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. This issue occurred twice at the same location; once at the start of the shift and another at approximately 2200 hrs.

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: 1830 and 2200hrs-11/7/07 – Verbal

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

Time and method of notification: 1830 and 2200hrs-11/7/2007 – Verbal

QC Inspector's Name: QC Inspector Dan Smith

Was the QC Inspector aware of problem: Yes

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

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JOBSITE NCR

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NCR #216

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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

Attn: Mr. Rich Bienek
Welding Quality Control Manager

November 12, 2007

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

Letter No. 05.003.01-003642

Subject: NCR - Kiewit-FCI-Manson, 11/07/07 (Failure to Maintain Preheat)

Dear Rich,

The Department issued a Non-conformance Report (NCR) at the SAS T1/E2 Foundations project site on November 7, 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 F1 and F2. QA verbally notified Mr. Jim Belcher, KFM General Welding Foreman, of this non-conformance on November 7, 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