

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 13.4/13.80File # 01.25 B**QUALITY ASSURANCE - NONCONFORMANCE REPORT****Location:** SFOBB Jobsite**JOBSITE NCR** **Date:** 10/30/2007**Prime Contractor:** Kiewit/FCI/Manson (KFM)**NCR #214****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. The loss of preheat occurred on PHCP pile sleeve 1, plate D, weld 2, beginning at the bottom weld radius and extending approximately 104 centimeters upwards. The pre-heat temperature within this zone was between 150 and 200 degrees Fahrenheit as verified with temperature indicating crayons. 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: 2330hrs-10/30/07 – Verbal

Name of Caltrans Engineer notified: Assistant Structure Representative, Mark Baker

Time and method of notification: 2330hrs-10/30/2007 – 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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QUALITY ASSURANCE - NONCONFORMANCE REPORT

Location: SFOBB Jobsite **JOBSITE NCR** **Date:** 10/30/2007

Prime Contractor: Kiewit/FCI/Manson (KFM) **NCR #214**

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. The loss of preheat occurred on PHCP pile sleeve 1, plate D, weld 2, beginning at the bottom weld radius and extending approximately 104 centimeters upwards. The pre-heat temperature within this zone was between 150 and 200 degrees Fahrenheit as verified with temperature indicating crayons. 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: 2330hrs-10/30/07 – Verbal

Name of Caltrans Engineer notified: Assistant Structure Representative, Mark Baker

Time and method of notification: 2330hrs-10/30/2007 – 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

November 6, 2007

Attn: Mr. Dan Proctor
Construction Manager

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

Letter No. 05.003.01-003628

Subject: NCR - Kiewit-FCI-Manson, 10/30/07 (Failure to Maintain Preheat Temperature)
Response to Submittal No. 1655, Revision No. 00 (KFM NCR 56 Preheat T1 1 D2)

Dear Dan,

The Department issued a Non-conformance Report (NCR) at the SAS T1/E2 Foundations project site on October 30, 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 1 weld D2. Mr. Dan Smith, KFM QC Inspector, discovered the problem on October 30, 2007, and verbally notified the Department and Mr. Jim Belcher, KFM General Welding Foreman.

The Department has reviewed Kiewit-FCI-Manson (KFM) Submittal No. 1655, Revision No. 00, dated November 2, 2007, which contained KFM NCR No. 56, which documents the above noted issue. The Department understands that the Contractor returned the weld to the minimum preheat temperature and that MT was performed on the in-place weld prior to resuming welding. The Department considers the NCR dated October 30, 2007, and Submittal No. 1655, Revision No. 00, 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, 55.1655