

**DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES  
MATERIALS ENGINEERING AND TESTING SERVICESOffice 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) 649-5493Contract # : 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:** 10-31-2007**Prime Contractor:** Kiewit/FCI/Manson (KFM)**NCR #215****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 pile sleeve 1 plate D weld 1 and pile sleeve 5 plate H weld 1.**Procedural:**  **Procedural:** **Description of Non-Conformance:**

The Contractor failed to maintain the pre-heat temperature during the welding of T1 pile head connection plates (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 at PHCP pile sleeve 1, plate D, weld 1, at 0830 hrs., and at PHCP pile sleeve 5, plate H, weld 1, at 1530 hrs. The loss of preheat occurred at the bottom weld termination and into the weld for a distance of approximately 50mm on plate H and 80mm on plate D. Temperature measurements were taken utilizing Tempilstik heat indicators and were noted to be less than 200 degrees Fahrenheit (93 degrees Celsius). The loss of heat on Pile 1 appears to be caused by an electrical wire becoming disconnected from the heater that is attached to the bottom of the weld joint and the loss of heat on pile 5 appears to be the result of water in the annulus (between the pile and pile sleeve).

**Applicable reference:** Caltrans Special Provisions, Section 10-1.31, Field Welding of Pile/Sleeve Connection Plates, Line F**Who discovered the problem:** Caltrans Quality Assurance Inspector, Mr. Paul Dawson**Name of individual from Contractor notified:** KFM General Welding Foreman, Scott McCoy**Time and method of notification:** 1500 hrs. 10-31-2007– Verbal**Name of Caltrans Engineer notified:** Assistant Structure Representative, Aaron Prchlik**Time and method of notification:** 1530 hrs. 10-31-2007 – Verbal**QC Inspector's Name:** Mark Bartholomew and Jo Jo Lizardo**Was the QC Inspector aware of problem:** No**Contractor's proposal to correct the problem:** KFM intends to perform magnetic particle inspection of the lower portion of the weld after the preheat is re-established.

**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: Paul Dawson

Quality Assurance Inspector

Reviewed By: Albert Carreon

Lead QA Reviewer

TL-0015, Nonconformance Report (06/20/07)

Page 1 of 2

Hardcopy Routing Instructions:

1. Resident Engineer

2. Inspecting Branch Contract File

3. Responsible Branch Contract File (with supporting documentation)

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Cty SF Rte 80 PM 13.4/13.80
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QUALITY ASSURANCE - NONCONFORMANCE REPORT

Location: SFOBB Jobsite JOBSITE NCR [X] Date: 10-31-2007

Prime Contractor: Kiewit/FCI/Manson (KFM) NCR #215

Submitting Contractor: KFM

Type of problem:

Welding [X] Concrete [ ] Other [ ]

Welding: [X] Curing: [ ] Procedural: [ ] Bridge No. 34-0006 L/R

Joint fit-up: [ ] Coating: [ ] Other: [ ] Component: T1 Foundation pile sleeve 1 plate D weld 1 and pile sleeve 5 plate H weld 1.

Procedural: [X] Procedural: [ ]

Description of Non-Conformance:

The Contractor failed to maintain the pre-heat temperature during the welding of T1 pile head connection plates (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 at PHCP pile sleeve 1, plate D, weld 1, at 0830 hrs., and at PHCP pile sleeve 5, plate H, weld 1, at 1530 hrs. The loss of preheat occurred at the bottom weld termination and into the weld for a distance of approximately 50mm on plate H and 80mm on plate D. Temperature measurements were taken utilizing Tempilstik heat indicators and were noted to be less than 200 degrees Fahrenheit (93 degrees Celsius). The loss of heat on Pile 1 appears to be caused by an electrical wire becoming disconnected from the heater that is attached to the bottom of the weld joint and the loss of heat on pile 5 appears to be the result of water in the annulus (between the pile and pile sleeve).

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

Who discovered the problem: Caltrans Quality Assurance Inspector, Mr. Paul Dawson

Name of individual from Contractor notified: KFM General Welding Foreman, Scott McCoy

Time and method of notification: 1500 hrs. 10-31-2007- Verbal

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

Time and method of notification: 1530 hrs. 10-31-2007 - Verbal

QC Inspector's Name: Mark Bartholomew and Jo Jo Lizardo

Was the QC Inspector aware of problem: No

Contractor's proposal to correct the problem: KFM intends to perform magnetic particle inspection of the lower portion of the weld after the preheat is re-established.

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: Paul Dawson Quality Assurance Inspector

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TL-0015, Nonconformance Report (06/20/07)

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**QUALITY ASSURANCE - NONCONFORMANCE REPORT**

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*Hardcopy Routing Instructions:*

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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

November 6, 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. 05.003.01-003629

Subject: NCR - Kiewit-FCI-Manson, 10/31/07 (Failure to Maintain Preheat)

Dear Rich,

The Department issued a Non-conformance Report (NCR) at the SAS T1/E2 Foundations project site on October 31, 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 D1, and at pile 5, weld H1. QA verbally notified Mr. Scott McCoy, KFM General Welding Foreman, of this non-conformance on October 31, 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