

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:** 10/13/2007**Prime Contractor:** Kiewit/FCI/Manson (KFM)**NCR #****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 2, beginning 11 centimeters above the bottom weld radius and extending approximately 72 centimeters upwards. The pre-heat temperature within this zone was between 200 and 225 degrees Fahrenheit. Within this same area, beginning at 25 centimeters above the bottom weld radius and extending upwards to 60 centimeters above the bottom radius, the pre-heat temperature was measured between 175 and 200 degrees Fahrenheit. There were several subsequent filler passes deposited over the weld root prior to the loss of heat. 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.

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

Who discovered the problem: Office Of Structural Materials (OSM) Quality Assurance Inspector Edward Leach

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

Time and method of notification: 0400hrs-10/13/2007 – Verbal

Name of Caltrans Engineer notified: Assistant Caltrans Structures Representative Jason Wilcox

Time and method of notification: 0430hrs-10/09/2007 – Verbal

QC Inspector's Name: Inspection Services, Inc. Quality Control Inspector Heydar Alakbarov

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

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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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:** 10/13/2007**Prime Contractor:** Kiewit/FCI/Manson (KFM)**NCR #208****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 2, beginning 11 centimeters above the bottom weld radius and extending approximately 72 centimeters upwards. The pre-heat temperature within this zone was between 200 and 225 degrees Fahrenheit. Within this same area, beginning at 25 centimeters above the bottom weld radius and extending upwards to 60 centimeters above the bottom radius, the pre-heat temperature was measured between 175 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: Office Of Structural Materials (OSM) Quality Assurance Inspector, Edward Leach

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

Time and method of notification: 0400hrs-10/13/2007 – Verbal

Name of Caltrans Engineer notified: Assistant Structure Representative, Jason Wilcox

Time and method of notification: 0430hrs-10/09/2007 – Verbal

QC Inspector's Name: KFM Quality Control Inspector, Heydar Alakbarov

Was the QC Inspector aware of problem: No

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: Edward Leach

Quality Assurance Inspector

Reviewed By: Albert Carreon

Lead QA Reviewer

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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

October 18, 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. 05.003.01-003581

Subject: NCR - Kiewit-FCI-Manson, 10/13/07 (Failure to Maintain Preheat)

Dear Rich,

The Department issued a Non-conformance Report (NCR) at the SAS T1/E2 Foundations project site on October 13, 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, weld A2. QA verbally notified Mr. Jim Belcher, KFM General Welding Foreman, of this non-conformance on October 13, 2007.

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 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