

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 MATERIALS ENGINEERING AND TESTING SERVICES
 Office of Structural Materials
 Quality Assurance and Source Inspection

Bay Area Branch

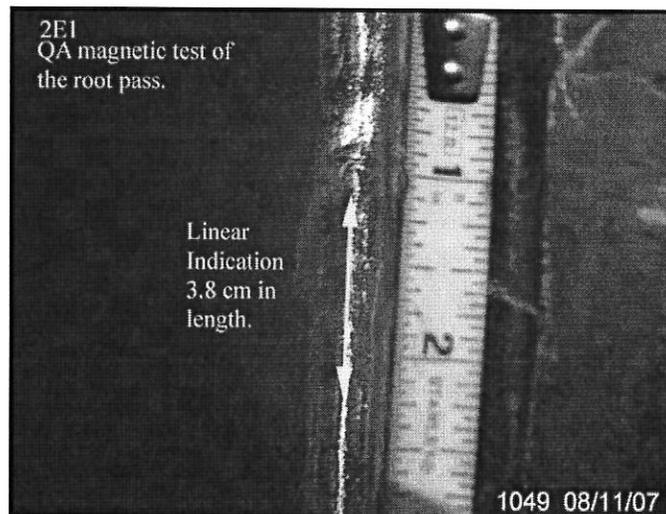
690 Walnut Ave., St. 150
 Vallejo, CA 94592-1133
 (707) 649-5453
 FAX: (707) 649-5493



Contract # : 04-0120E4
 Cty SF Rte 80 PM 13.4/13.8
 File # 1.25 B

QUALITY ASSURANCE - NONCONFORMANCE REPORT**Location:** T1 Pile Head Connection Plates (PHCP) 2E-1**Date:** 08-11-2007**Prime Contractor:** Kiewit/FCI/Manson-KFM-JV**NCR #190****Submitting Contractor:** Kiewit/FCI/Manson-KFM-JV**Type of problem:****Welding** **Concrete** **Other** **Welding:** **Curing:** **Procedural:** **Bridge No.** 34-0006 L / R**Joint fit-up:** **Coating:** **Other:** **Component:** T1 foundation footing**Procedural:** **Procedural:**

Description of Non-Conformance: KFM Quality Control Inspector, Gary Ehram, has overlooked multiple relevant Magnetic Particle (MT) indications while working on the E2/T1 project. Most recently this inspector overlooked a centerline linear indication in the root pass (3.8cm in length) of Pile Head Connection Weld 2E1. The indication was shown to the Quality Control Inspector and Mr. Ehram agreed the relevant indication was overlooked. The following digital photograph is an illustration of the indication discussed above.

**Applicable reference:** AWS D1.5 2002 Section 6.26.2.1 and 6.26.2.3**Who discovered the problem:** Quality Assurance Inspector Raymond Lara**Name of individual from Contractor notified:** ISI, QC Inspector Gary Ehram and QC Andrew Coffman**Time and method of notification:** 08/11/07 at approximately 1130 via verbal notification.**Name of Caltrans Engineer notified:** Caltrans Assistant Structures Representative, Thanh Le**Time and method of notification:** Verbal notification on 8-11-07**QC Inspector's Name:** ISI QC Inspector, Gary Ehram

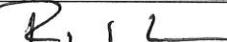
QUALITY ASSURANCE - NONCONFORMANCE REPORT

(Continued, Page 2 of 2)

Was the QC Inspector aware of problem: No

Contractor's proposal to correct the problem: Removed indications by grinding before welding commenced.

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: Raymond Lara 

Quality Assurance Inspector

Reviewed By: Albert Carreon/ Bill Levell 

Lead QA Reviewer

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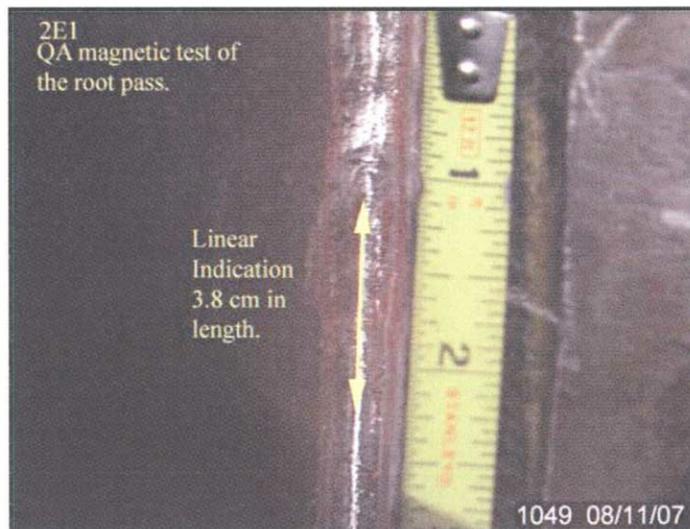
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Quality Assurance Inspector

Reviewed By: Albert Carreon/ Bill Levell

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

Attn: Mr. Dan Proctor
Construction Manager

November 12, 2007

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

Letter No. 05.003.01-003641

Subject: Response to KFM Letter No. 325 (Response to Inspection NCR's- SL 3351, 3352, 3376, and 3388)

Dear Dan,

The Department has reviewed Kiewit-FCI-Manson (KFM) Letter No. 325, dated October 22, 2007, which responded to the Department's Letter Nos. 3351, 3352, 3376, and 3388. These Department's letters notified KFM of the Department's Non-conformance Reports (NCRs) issued on July 26, July 21, August 7, and August 11, 2007, regarding KFM QC inspectors' failure to record rejectable MT indications at the SAS T1/E2 Foundations project site. The Department understands that the Contractor has taken steps to resolve the issue. The Department considers the above NCRs to be resolved.

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

Memorandum

*Flex your power!
Be energy efficient!*

To: MARK VILCHECK
Structure Representative
333 Burma Road
Oakland, CA 94607

Date: November 12, 2007

File: 04-0120E4
E2/T1 Foundations

From: RYAN T. SMITH
Structural Materials Representative
Quality Assurance and Source Inspection Branch
Office of Structural Materials

KFM LETTER 325 – RESPONSE TO METS NCR’S 183, 184, 187, AND 190

The Materials Engineering and Testing Service (METS) has reviewed KFM Letter 325 dated October 22, 2007. This letter is requesting to close METS NCR’s 183, 184, 187, AND 190 which were issued to the Contractor by State Letters 05.03.01-0003051, 05.03.01-0003052, 05.03.01-0003076 and 05.03.001-0003088.

In July and August 2007, METS documented that several of the Contractor’s Quality Control Inspectors failed to record multiple rejectable indications while performing Magnetic Particle Testing (MT) of the Pile/Sleeve Connector Plates (PSCP). In KFM-LET-325, the Contractor indicates that the missed indications were primarily located in the root passes except for the one missed while performing a Critical Weld Repair (CWR); METS records confirm this information.

As stated in the Contractor’s response letter, additional training was conducted by a third party NDT company. The training focused on common causes for overlooking relevant indications when performing MT. Through discussion with the inspectors, the following items were noted for change to aide in future inspections:

1. Providing adequate levels of light for inspections.
2. Checking magnetic field strength more frequently
3. Keeping the MT procedure in the field for quicker reference
4. Using the continuous method of inspection in lieu of the residual method

Mark Vilcheck
November 12, 2007
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Furthermore, the Contractor's letter states that additional instruction was performed for the inspectors related to NCR's 187 and 190 regarding the determination of relevant indications as the inspectors noted in the NCR's failed to investigate relevant indications.

As a result of the additional measures being conducted by the Contractor, METS considers NCR's 183, 184, 187, AND 190 to resolved be resolved at this time. However, METS reminds the Contractor that this issue may be brought up in the future should the problems reoccur in the future.

If you have any questions, or would like to discuss the issues, please call me at (858) 232-6799.

cc: Rafael Bolon
Tom Shimada
Albert Carreon