

**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 Foundation**Date:** 07-27-07**Prime Contractor:** Kiewit/FCI/Manson-KFM-JV**NCR #184****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:** E2E foundation footing  
**Procedural:**  **Procedural:**

**Description of Non-Conformance:**

The KFM Quality Control Inspector, Heydar Alakborov, missed one 5mm linear magnetic particle testing (MT) indication in the root weld pass of weld 6A-2. The indication was located 360mm from the top of the weld. It should be noted that this is not the first indication overlooked by this inspector.

**Applicable reference:** AWS 6.26.2.3 & 6.26.2.1**Who discovered the problem:** Quality Assurance Inspector, Rick Bettencourt**Name of individual from Contractor notified:** KFM Quality Control Manager, Terry Hipes**Time and method of notification:** 07/27/07 at approximately 0900 in person**Name of Caltrans Engineer notified:** Doug Wright, Caltrans Assistant Structure Representative**Time and method of notification:** 0900 hours July 27, 2007 in person**QC Inspector's Name:** Heydar Alakborov**Was the QC Inspector aware of problem:** No**Contractor's proposal to correct the problem:** Unknown

**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: Richard Dennis Bettencourt

Quality Assurance Inspector

Reviewed By: Albert Carreon

Lead QA Reviewer

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**Inspected By:** Richard Dennis Bettencourt

Quality Assurance Inspector

**Reviewed By:** Albert Carreon

Lead QA Reviewer

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RECEIVED

**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