

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 **13.4/13.8.**
File # **45.25 B****QUALITY ASSURANCE - NONCONFORMANCE REPORT**Location: **Ingleside, Texas**

Date: 8-26-06

Prime Contractor: **Kiewit/FCI/Manson (KFM) – Joint Venture**

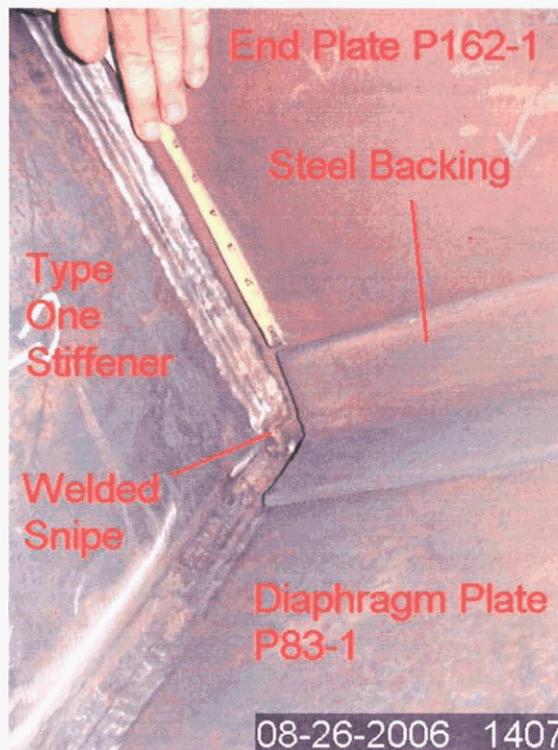
NCR # 115

Submitting Contractor: **Kiewit Offshore Services (KOS)****Type of problem:**

Welding	<input checked="" type="checkbox"/>	Concrete	<input type="checkbox"/>	Other	<input type="checkbox"/>	
Welding:	<input checked="" type="checkbox"/>	Curing:	<input type="checkbox"/>	Procedural:	<input type="checkbox"/>	Bridge No.: #34-0006L/R
Joint fit-up:	<input checked="" type="checkbox"/>	Coating:	<input type="checkbox"/>	Other:	<input type="checkbox"/>	Component: #T1 Foundation Footing
Procedural:	<input type="checkbox"/>	Procedural:	<input type="checkbox"/>			

Description of Non-Conformance:

- (A) KOS Quality Control is allowing the use non-continuous steel backing where end plates P142 and P162 join diaphragm plates P83 with a single bevel complete joint penetration weld. This situation is typical in two areas where these end plates join diaphragm plates P83-1 and P83-2.
- (B) KOS Quality Control has allowed KOS to weld the sniped portion of stiffener plates P264-1 and P264-2 where they join end plates P142 and P162.



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QUALITY ASSURANCE - NONCONFORMANCE REPORT

(Continued, Page 2 of 2)

Applicable reference: AWS D1.5 2002 section 3.13.2 states "Groove welds made with the use of steel backing shall have the weld metal thoroughly fused with the backing. Steel backing shall be continuous for the full length of each weld made with backing. A continuous length of backing may be made by welding shorter sections together under the following conditions.

- (1) All welds shall be CJP groove welds made with the same controls as similar CJP groove welds in the structure.
- (2) RT or UT shall be used to assure weld soundness.
- (3) All welding and testing of the backing shall be complete before the backing is used to make the structural weld.
- (4) KOS's approved shop drawing sheet P264 requires a 50 millimeter sniped corner.

Who discovered the problem: Caltrans Quality Assurance Inspector Gregory Bertlesman

Name of individual from Contractor notified: KOS Quality Control Representative (QC) Mr. George Barnhill

Time and method of notification: Verbal with Mr. Barnhill at approximately 1400 on 8-26-2006

Name of Caltrans Engineer notified: Mark Vilcheck, Structural Representative

Time and method of notification: August 28, 2006, 0945 via telephone conversation

QC Inspector's Name: George Barnhill

Was the QC Inspector aware of problem: Yes

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: Gregory Bertlesman

Quality Assurance Inspector

Reviewed By: Robert Cuellar

Lead QA Inspector

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Contract # : 04-0120E4

Cty SF Rte 80 PM 13.8

File # 45.25A

QUALITY ASSURANCE - NONCONFORMANCE RESOLUTION**Location:** Ingleside, Texas**Date:** December 14, 2006**Prime Contractor:** Kiewit/FCI/Manson (KFM) – Joint Venture**NCR#115****Submitting Contractor:** Kiewit Offshore Services (KOS)**Type of problem:****Welding** **Concrete** **Other** **Welding:** **Curing:** **Procedural:** **Joint fit-up:** **Coating:** **Other:** **Procedural:** **Procedural:** **Bridge No.** 34-0006L/R**Component** T1 Foundation Footing**Date nonconformance report was written:** August 26, 2006**Description of Non-Conformance:** KOS Quality Control (QC) has allowed KOS to use a non-continuous backing bar where end plates P142 and P162 join diaphragm plate P83.**Contractor's proposal to correct the problem:** KOS has performed ultrasonic testing (UT) on the welds listed above and has listed them on the UT reports as individual welds.**Corrective action taken:** None**Did corrective action require Engineer's approval?** Yes No**If so, name of the Engineer providing approval:** Mark Woods, per Caltrans state letter **Date:** 12-14-06
05.003.01-002424**Is Engineer's approval attached:** Yes No**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:** Mary Madere

Quality Assurance Inspector

Reviewed By: Robert Cuellar & Keith Hoffman

QA Reviewer and Branch Senior

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. Lee Zink
Project Director

December 14, 2006

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

Letter No. 05.003.01-002424

Subject: Response to Submittal No. 926, Revision No. 00 (KOS Response to METS NCR #115)

Dear Lee,

The Department has reviewed Kiewit-FCI-Manson (KFM) Submittal No. 926, Revision No. 00, dated September 27, 2006, which responded to the Department's Non-conformance Report (NCR) No. 115. The Department's Letter No. 1791, dated August 31, 2006, notified KFM of the NCR for Kiewit Offshore Services (KOS) dated August 26, 2006. The Department hereby approves Submittal No. 926, Revision No. 00, pursuant to Section 8-3.01, "Welding," of the Special Provisions. The NCR for KOS dated August 26, 2006, is considered to be resolved.

If you have any questions or need additional information, please contact Mark Vilcheck at (510) 286-0526.

Sincerely,

Mark Woods
Senior Bridge Engineer

For: Pedro J. Sanchez
Resident Engineer

cc: P. Sanchez
R. Smith

file: 05.003.01, 09.006.03, 55.0926

Memorandum

*Flex your power!
Be energy efficient!*

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

COMPLETED

Date: November 8, 2006

File: 04-0120E4
E2/T1 Foundations

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

KFM SUBMITTAL 926-00 –KIEWIT OFFSHORE SERVICES (KOS) RESPONSE TO NONCONFORMANCE REPORTS 115

The Office of Structural Materials (OSM) has reviewed the KFM Submittal 926-00, dated September 27, 2006. In this submittal the Contractor is requesting to close the Nonconformance Report (NCR) issued by State Letter 05.003.01-001791, regarding KOS' use of non-continuous backing and welding the weld access areas closed in two locations of the T1 footing box.

The Contractor's response to the NCR 115 states that the welds connecting P142 and P162 to the adjacent web plates were ultrasonically examined as "individual welds and not as continuous". After reviewing the ultrasonic test reports from the Contractor, METS agrees that the welds were examined individually; however the welds (#2 and #5 as shown in the sketch provided in the submittal) were initially deposited as a continuous weld.

In accordance with discussions between the Contractor and METS personnel regarding this issue, METS understands that the backing bar on endplates P142 and P162 (welds #2 and #5) was a continuous backing bar at the time the weld was deposited. However, due to the welding sequence of operations selected by the Contractor, the backing bar was cut in order to allow the installation of the Type 3 stiffener. METS has approved the Contractor to cut the backing bar at this location provided that the Contractor will deposit a concave fillet weld to remove the stress concentration ("notch") created by cutting the backing bar.

Mark Vilcheck
June 14, 2006
Page 2

Additionally, the Contractor's response appears to state that the weld access areas were not welded closed. METS understands that the weld access areas were welded initially; however, the Contractor subsequently repaired these areas and they are currently in the condition shown in the photographs attached in the submittal.

In accordance with the commentary above, METS considers NCR 115 to be closed at this time. If you have any questions, or would like to discuss the issues, please call me at (858) 232-6799.

cc: Rafael Bolon
Tom Shimada
Ptryk Pich
Robert Cuellar