

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING 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  
(707) 649-5493

Contract #: 04-0120L4Cty: SF/ALA Rte: 80 PM: 1.6/2.7File #: 1.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Job site**Report No:** NCR-000094**Prime Contractor:** MCM Construction, Inc.**Date:** 05-Jun-2008**Submitting Contractor:** MCM Construction, Inc.**NCR #:** NCR-000094**Type of problem:**

<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b> Shear rings E-21L-2 weld #4 E-21L-8 weld #1
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Reference Description:****Description of Non-Conformance:**

The QA Inspector noted the complete joint penetration vertical groove welds, attaching the shear rings to the piles did not maintain the minimum required preheat of 225 degrees F continuously. The QA Inspector determined the preheat temperature had dropped to ambient temperature. E21L-2 weld #4 and E-21L-8 weld #1 loss heat totally due to a pump failure and minor flooding of the coffer dam.

**Applicable reference:**

Caltrans special provisions field welding note J

**Who discovered the problem:** Caltrans QA Inspector Rick Bettencourt**Name of individual from Contractor notified:** MCM Welding Superintendent Chris Smith**Time and method of notification:** 0700 in person**Name of Caltrans Engineer notified:** Caltrans Assistant Structures Representative Ibrahim Qawasmi**Time and method of notification:** 1000 via phone conversation**QC Inspector's Name:** Kevin Scrivner**Was QC Inspector aware of the problem:** Yes No**Contractor's proposal to correct the problem:**

Perform magnetic particle testing after the minimum required preheat is restored.

**Comments:**

This report is for the purpose of determining 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 Mohammad Fatemi, who represents the Office of Structural Materials for your project.

**Inspected By:** Bettencourt, Rick**Reviewed By:** Levell, Bill

QA

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Contract #: 04-0120L4Cty: SF/ALA Rte: 80 PM: 1.6/2.7File #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Job site**Report No:** NCS-000088**Prime Contractor:** MCM Construction, Inc.**Date:** 16-Jun-2008**Submitting Contractor:** MCM Construction, Inc.**NCR #:** NCR-000094**Type of problem:**

<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b>
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Date the Non-Conformance Report was written:** 05-Jun-2008**Description of Non-Conformance:**

The QA Inspector noted the complete joint penetration vertical groove welds, attaching the shear rings to the piles did not maintain the minimum required preheat of 225 degrees F continuously. The QA Inspector determined the preheat temperature had dropped to ambient temperature. E21L-2 weld #4 and E-21L-8 weld #1 loss heat totally due to a pump failure and minor flooding of the coffer dam.

**Contractor's proposal to correct the problem:**

Perform magnetic particle testing after the minimum required preheat is restored and prior to production welding.

**Corrective action taken:**

The welds were brought up to the minimum required preheat up to 225 degrees, magnetic particle testing was performed prior to the commencement of production welding. In addition MCM has installed a back up pump in the event of a pump failure. (Reference-MCM-SUB-00612R0)

**Did corrective action require Engineer's approval?** Yes No**If so, name of Engineer providing approval:****Date:****Is Engineer's approval attached?** Yes No**Comments:**

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**Inspected By:** Levell,Bill

Quality Assurance Inspector

**Reviewed By:** Fatemi,Mohammad

QA Reviewer