

**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 #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 76.25B


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**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT**


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**Location:** Painesville, OH**Report No:** NCR-000124**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 21-Apr-2008**Submitting Contractor:** Dyson Corp. & Subs**NCR #:** DYSN-0001**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> Dehumidification Platform Headed Anchor Bolts
<b>Procedural</b>	<b>Procedural</b>	<b>Descriptor:</b>	Certificate of Compliance for nonexistent standard

**Reference Description:** Contract Plans, Caltrans Standard Specifications (July 1999), ASTM**Description of Non-Conformance:**

The Dyson Corporation Quality Control Manager (QCM) allowed submission of a Certificate of Compliance (COC) denoting conformance with a nonexistent specification: ASTM A 449, M16 (16 mm diameter); however, no Metric specifications exist for A 449.

Contract Plans (CP) Sheet 963 called for a 16 mm diameter A 449 bolt. Since A 449 does not have a Metric version, per CP notes, sheet 423, a 5/8 inch diameter, A 449 bolt should have been provided.

The bolts were apparently fabricated to A 325M standards, for which they passed Quality Assurance (QA) testing, including mechanical, threading, and dimensions. However, QC tensile tests appear to have been some variation of A 325, reported in pounds and pounds per square inch (psi). The COC certifies galvanizing to ASTM A 123; the galvanizing requirement for A 449, A 325, and A 325M bolts is A 153/153M.

**Applicable reference:**

Contract Plans:

Sheet 423, "General Notes No. 1," "Substitution of Non-Metric HS Fasteners": "Bolts and rods designated as xx Dia...standard specifications."

Sheet 963, "Dehumidification Support Details No. 7"

Special Provisions, 10-1.59, "Steel Structures," para. 1, "Construction...and these Special Provisions."

CALTRANS Standard Specifications, July 1999:

Section 6-1.07, "Certificates of Compliance"

Sections 55-1.03, "Inspection" and 55-2, "Materials," Table p. 411.; 55-3.14, para. 11

ASTM A 449, A 325, A 325M, A 153/153M

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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**Who discovered the problem:** Glen Weldon, Trans Lab Manager

**Name of individual from Contractor notified:** Charles Kanapicki, ABF QCM

**Time and method of notification:** April 23, 2008, 11:43 AM, Venkatesh Iyer email

**Name of Caltrans Engineer notified:** Gil Klebanov

**Time and method of notification:** April 23, 2008, 11:30 AM, personal conversation

**QC Inspector's Name:** Deborah A. Smith, Q.A. Admin Assistant

**Was QC Inspector aware of the problem:** Yes No

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

Dyson is to provide to the Engineer via ABF exact material specifications, as well as explanations of galvanizing and QC testing results.

**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 Venkatesh Iyer, (858) 967-6363 , who represents the Office of Structural Materials for your project.

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**Inspected By:** Petrina,Markian

SMR

**Reviewed By:** Iyer,Venkatesh

SMR

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Painesville, OH**Report No:** NCS-000101**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 25-Apr-2008**Submitting Contractor:** Dyson Corp. & Subs**NCR #:** DYSN-0001**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:** 21-Apr-2008**Description of Non-Conformance:**

The Dyson Corporation Quality Control Manager (QCM) allowed submission of a Certificate of Compliance (COC) denoting conformance with a nonexistent specification: ASTM A 449, M16 (16 mm diameter); no Metric specifications exist for A 449. Contract Plans (CP) Sheet 963 called for a 16 mm diameter A 449 bolt. Since A 449 does not have a Metric version CP notes sheet 423 indicates A 449, 5/8 inch diameter bolts should have been provided.

The bolts were apparently fabricated to A 325M standards, for which they passed Quality Assurance (QA) testing, including mechanical, threading, and dimensions. However, QC tensile tests appear to have been some variation of A 325, reported in pounds and pounds per square inch (psi). The COC certifies galvanizing to ASTM A 123; the galvanizing requirement for A 449, A 325, and A 325M bolts is A 153/153M.

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

Dyson is to provide to the Engineer via ABF exact material specifications, as well as explanations of galvanizing and QC testing results.

**Corrective action taken:**

Dyson provided a satisfactory COC for ASTM A 325M, M16 bolts marked as A 449. QC laboratory testing reports now indicate compliance with A 325M. The galvanizer indicated compliance with the correct specification, A 153, as opposed to either "A 123 or A 153" per the original galvanizing COC.

**Did corrective action require Engineer's approval?** Yes No**If so, name of Engineer providing approval:** Ron Martin for Gil Klebanov**Date:** 25-Apr-2008**Is Engineer's approval attached?** Yes No**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 Venkatesh Iyer, (858) 967-6363, who represents the Office of Structural Materials for your project.

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## QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

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**Inspected By:** Iyer, Venkatesh

Quality Assurance Inspector

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**Reviewed By:** Iyer, Venkatesh

QA Reviewer