#### 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 #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 76.25B

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

**Location:** Dyson Corporation, Painesville, OH Report No: NCR-000199

Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 16-Sep-2008 **Submitting Contractor:** Dyson Corp. & Subs **NCR #:** DYSN-0005

### Type of problem:

Welding Other Concrete

Welding Curing **Procedural Bridge No:** 34-0006

Joint fit-up **Coating** Other **Component:** E2 Shear Key Bearing Anchor Rod Assemblies

**Procedural Procedural Descripton:** Nonconforming Material

Reference Description: E2 Shear Key A 354 BD Bearing Anchor Rods, A 563 DH Nuts

**Description of Non-Conformance:** 

Trans Lab QA testing determined that Dyson Corporation provided nonconforming material:

- 1) Anchor rods: 2 heats (of 7 total) did not meet ASTM A 354 Grade BD requirements for elongation, 14% in
- 2 inches required. Heat Treatment Lot MJF 26 two-sample average: 13.45% (one 14.4%, one 12.5%); Lot MJF
- 30 two-sample average: 13.45% (one 13.6%, one 13.3%).
- 2) Nuts: Spherical nuts fabricated to ASTM A 563 material standards had insufficient hardness. A 563 Grade DH nuts require hardness between 24 and 38 on the Rockwell C hardness scale (C24 to C38). The three-nut average hardness was approximately C20, with one as low as C18.07.

This is the third such instance with Dyson since November, 2007.

#### **Applicable reference:**

**ASTM A 354** 

**ASTM A 563** 

Who discovered the problem: Trans Lab

Name of individual from Contractor notified: Robert (Bob) Kick **Time and method of notification:** 0910, 9/17/2008, telepohne call

Name of Caltrans Engineer notified: **Brian Boal** 

**Time and method of notification:** 1500, 9/17/2008, face-to-face meeting

**QC Inspector's Name:** Unknown

Was QC Inspector aware of the problem: Yes No

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

Submit RFI to accept rods and nuts "as is." Design approved incorporation of rods with noncompliant elongation; nuts pass tensile test, which overrides the hardness test.

#### **Comments:**

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

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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, (510) 808-4542, who represents the Office of Structural Materials for your project.

Inspected By:	Petrina,Markian	SMR
Reviewed By:	Iyer, Venkatesh	SMR