

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**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	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: E2 Shear Key Bearing Anchor Rod Assemblies
Procedural	Procedural	Description:	Release of 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 had a two-sample average of 13.45%, with one sample at 14.4% and another at 12.5%; Lot MJF 30 had an average of 13.45%, one each at 13.6% and 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 C18.5. Of note, the hardness test averages four readings per test face; one nut had hardness readings varying between 16 and 37.

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

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

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

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

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000170

Subject: NCR No. DYSN-0005

Dated: 15-Oct-2008

Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000169 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ABFJV requests that rods and nuts in question be accepted "as-is."

Please see RFI 1524 (attached). Based on the response to this RFI, ABFJV requests that rods and nuts in question be accepted "as-is."

Submitted by: Kanapicki, Charles

Attachment(s): ; ABF-NPR-000169R00

Caltrans' comments:

Status: CLO

Date: 16-Oct-2008

The Department accepts the Dyson rod assemblies as 'Fit for Purpose'.

The Contractor is advised that any future non-conforming material furnished by Dyson will be subject to rejection.

Submitted by: Matin, Ron

Attachment(s):

Date: 16-Oct-2008

REQUEST FOR INFORMATION (RFI)

RFI No.: ABF-RFI-001524R00 Submitted By: Kanapicki, Charles Pages: 3
 RFI Date: 06-October-2008 Contact Name: Kanapicki, Charles Phone No. (510) 808-4600
 Pages Attached: 2

Subject: E2 Shear Key A 354 BD Anchor Rods and A 563 DH Nuts	
References:	
Sub/Sup: DYS	Sub RFI #:
Response Required by: 13-October-2008	Response affects critical path activity? No

Description:

The referenced NCR (attached) identifies of anchor rods spherical nuts with noncompliant elongations and hardness respectively. ABFJV understands from the NCR that "Design approved incorporation of rods with noncompliant elongation; nuts pass tensile test, which overrides the hardness test."

Based on the above, ABFJV respectfully requests the Engineer's approval to accept the rods and nuts in question "as-is."

Contractor Disposition:

This RFI is being submitted for:

The Cost and Time Impact from this RFI is: Not selected

Response:

Agreed Ext. Due Date:

Pages: 1
 Pages Attached: 0

The Contractor's request for approval of the non-compliant rods and nuts in this RFI is granted "as-is."

The Contractor shall ensure that this recurring problem with Dyson non-conformant materials will not arise in the future. Any such noncompliant product furnished is subject to rejection by the Department. The Contractor is encouraged to specify methods, encompassing fabrication and testing, to prevent recurrence of this problem.

In addition, the Contractor is required to submit an NPR to close NCR # DYSN-0005.

Administrative Action:

This response resolves the RFI.

Date: 14-October-2008	Respondent: Matin, Ron	Phone No.: 510-808-4611
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Dyson Corporation, Painesville, OH**Report No:** NCS-000104**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 15-Oct-2008**Submitting Contractor:** Dyson Corp. & Subs**NCR #:** DYSN-0005**Type of problem:**

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

Date the Non-Conformance Report was written: 16-Sep-2008**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.

Contractor's proposal to correct the problem:

Submit RFI to accept rods and nuts "as is."

Corrective action taken:

ABF responded in writing, requesting Department approval of non-conforming material. Design approved incorporation of rods with noncompliant elongation; METS was able to perform tensile test, which the nuts passed, overriding the hardness test per ASTM.

Did corrective action require Engineer's approval? Yes No**If so, name of Engineer providing approval:** Brian Boal**Date:** 16-Sep-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 Ryan Smith, (858) 232-6799, who represents the Office of Structural Materials for your project.

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Inspected By: Petrina,Markian

Quality Assurance Inspector

Reviewed By: Iyer,Venkatesh

QA Reviewer