

From: Barela, Maximo [mailto:Maximo.Barela@nnsa.doe.gov]
Sent: Monday, October 17, 2016 2:18 PM
To: Garcia Santos, Norma <Norma.Garcia-Santos@nrc.gov>
Subject: [External_Sender] RE: Heads Up---435-B RAI
Importance: High

Norma,

The draft RAI requesting Structural and Materials Evaluation information for the 435-B, Docket Number 71-9355, CAC No. L25126, CoC No. 9355 Revision 1 you provided via October 12, 2016, e-mail indicates your Review Team's structural reviewer may have missed information on Aluminum 6061-T6 contained in the 435-B SAR and *ASTM Designation B209*.

Please confirm that the 435-B Package Review Team's structural reviewer read the response we provided in my October 13, 2016, 6:16 PM e-mail to you, and has rechecked the SAR and *ASTM Designation B209* for this information.

If after your structural reviewer completes the review of the response I provided in October 13, 2016, e-mail to you and rechecks the SAR and *ASTM Designation B209*, you still needs NNSA to provide the information specified in the third paragraph of draft RAI in your draft October 11, 2016, letter's enclosure, please let me know.

Thank you.

R/Max
505-845-5902

From: Garcia Santos, Norma [mailto:Norma.Garcia-Santos@nrc.gov]
Sent: Friday, October 14, 2016 4:13 AM
To: Barela, Maximo <Maximo.Barela@nnsa.doe.gov>
Cc: mccollum@lanl.gov; Chavez, David Michael <d_chavez@lanl.gov>; NOSS Philip (AREVA) <phil.noss@areva.com>; Adkins, Harold E <harold.adkins@pnnl.gov>
Subject: RE: RE: Heads Up---435-B RAI

Good morning Maximo,

Thanks for providing a response to the staff's question. The purpose of the RAI was to obtain the information that the staff needed in order to made its finding. I think that a teleconference should be beneficial in order to discuss your proposed response to the RAI and reach prompt resolution.

I will forward your e-mail to the staff for a teleconference...probably either on next Wednesday or Thursday.

Have a nice rest of the day,
Norma

From: Barela, Maximo [mailto:Maximo.Barela@nnsa.doe.gov]
Sent: Thursday, October 13, 2016 6:15 PM
To: Garcia Santos, Norma <Norma.Garcia-Santos@nrc.gov>

Cc: mccollum@lanl.gov; Chavez, David Michael <d_chavez@lanl.gov>; NOSS Philip (AREVA) <phil.noss@areva.com>; Adkins, Harold E <harold.adkins@pnnl.gov>
Subject: [External_Sender] RE: Heads Up---435-B RAI
Importance: High

Norma,

We reviewed your draft RAI letter, and noted with interested the statement contained in the third subparagraph of paragraph 1 of the *Structural and Material Evaluation* section.

The structural/materials question appears to be based on the misunderstanding that we are using a ASTM B209, 6061-T6 material that is unlisted in B209, and therefore of unknown properties. This is not the case. The principle is that each thickness range of B209, 6061 alloy in the T6 temper family has a unique temper designation, tensile strength, yield strength, and elongation. For example, the 0.500 to 1.000 thickness range has the designation T651, tensile strength of 42 ksi, yield strength of 35 ksi, and elongation of 9%. So when the fabricator goes to buy the 0.500 thick plate (item 30 on the SAR drawing), only the T651 temper will be available, and he will get the mechanical properties listed above.

Our technique used on the SAR drawing has been to call out 'T6' for all thicknesses, which is to be interpreted in cognizance of general note (GN) 54. GN 54 states, "Aluminum alloy 6061 tempers T651, T6510, or T6511 may be substituted for T6, when available". Thus, when the fabricator sees the specification for item 30 to be B209, 6061-T6, he will order the material in the T651 temper, because T6 is not available in that thickness, and GN 54 permits him to go to the one that is available, namely, T651. This material will be the same, no matter who orders it, and it is the same material that we tested in the certification test. The same technique is used in the SAR text, and Note 5 to Table 2.2-4 reads the same as the drawing note 54.

This is akin to specifying the tempers as "T6xxx", which gives the T6 temper family, but does not specify the other numbers (x51, x510, x511) since they are specific to a thickness, and specifying the thickness automatically determines these secondary values. The purpose of this approach was to reduce the chance for errors of the type which caused the drawing revision in the first place, namely specifying the wrong temper designation. All one needs to get the correct material is to go to B209, alloy 6061, T6 temper family, and then buy what is available based on GN 54, i.e., T651 in that thickness.

Of note, this is the same technique used on the lodgment drawing, 1916-01-02-SAR.

Therefore, in my opinion no RAI or teleconference are needed.

If you disagree, we offer the following teleconference date/time options:

Day of Week	One Hour Window MST	One Hour Window MST
Monday 10/17/16	10:00 AM – 11:00 AM	11:00 AM -12:00 PM
Wednesday 10/19/16	1:00 PM - 2:00 PM	2:00 PM – 3:00 PM
Thursday 10/20/16	10:00 AM – 11:00 AM	11:00 AM – 12:00 PM

If you choose a Monday teleconference time please schedule a telephone bridge that accommodates at least 6 NNSA representatives, and provide us call-in information via return e-mail.

Thank you.

R/Max

From: Garcia Santos, Norma [<mailto:Norma.Garcia-Santos@nrc.gov>]
Sent: Wednesday, October 12, 2016 11:55 AM
To: Barela, Maximo <Maximo.Barela@nnsa.doe.gov>
Subject: Heads Up---435-B RAI

Good afternoon Max,

You should be receiving the RAI for the 435-B, Rev. 1, in the next few days. Attached is an electronic copy of the letter you will be receiving. Also, I would like to know if you and your staff would be available for a teleconference call to discuss this RAI. Please let me know at your earliest convenience when you can support this phone call.

Feel free to contact me if any questions.

Have a nice rest of the day,

Norma Garcia Santos

Project Manager
Division of Spent Fuel Management
Office of Nuclear Material
Safety and Safeguards
U.S. Nuclear Regulatory Commission

Telephone No.: 301-415-6999

Email: Norma.Garcia-Santos@nrc.gov

E-mail properties:

Received: from HQPWMSMRS01.nrc.gov (172.17.48.10) by HQPWMSMRS01.nrc.gov (172.17.48.10) with Microsoft SMTP Server (TLS) id 15.0.1044.25 via Mailbox Transport; Mon, 17 Oct 2016 14:18:20 -0400

Received: from HQPWMSMRS02.nrc.gov (172.17.48.11) by HQPWMSMRS01.nrc.gov (172.17.48.10) with Microsoft SMTP Server (TLS) id 15.0.1044.25; Mon, 17 Oct 2016 14:18:20 -0400

Received: from mail1.nrc.gov (148.184.176.41) by HQPWMSMRS02.nrc.gov (172.17.48.11) with Microsoft SMTP Server id 15.0.1044.25 via Frontend Transport; Mon, 17 Oct 2016 14:18:20 -0400

Received-SPF: Pass (mail1.nrc.gov: domain of Maximo.Barela@nnsa.doe.gov designates 205.254.128.11 as permitted sender) identity=mailfrom; client-ip=205.254.128.11; receiver=mail1.nrc.gov; envelope-from="Maximo.Barela@nnsa.doe.gov"; x-sender="Maximo.Barela@nnsa.doe.gov"; x-conformance=spf_only; x-record-type="v=spf1"

Received-SPF: None (mail1.nrc.gov: no sender authenticity information available from domain of

postmaster@mailgate.doe.gov) identity=helo;

client-ip=205.254.128.11; receiver=mail1.nrc.gov;

envelope-from="Maximo.Barela@nnsa.doe.gov";

x-sender="postmaster@mailgate.doe.gov";

x-conformance=spf_only

X-Ironport-ID: mail1

X-SBRS: 3.5

X-MID: 233604251

X-IronPort-Anti-Spam-Filtered: true

X-IronPort-Anti-Spam-Result:

A0AYAAAwFQVYhwuA/s1YAxwBAQQBAQoBAYMHNQEBAQEBZg5OBCoHAY0slwSUOIEpBVqGlgKBazgUA
QIBAQEBAQEBEwEBAQgNCQkZL4RhAQEBAQMSARYEEwEBHRsRAQIGEQQBASEHORQJCQEEwgaiBYDF6c
aAYEpARxhBSgCinWFMAEBBYQxGINKAQEBAQEBAQMBAQEBAQEBGAmGPoRUhBgBEQEZBQwTCwoCD4I
FZIIvIDCFVQYBiS2IRIRngzeFaYx7gkmBNx6DdyCBXnlBhmCBIAF/AQEB

X-IPAS-Result:

A0AYAAAwFQVYhwuA/s1YAxwBAQQBAQoBAYMHNQEBAQEBZg5OBCoHAY0slwSUOIEpBVqGlgKBazgUA
QIBAQEBAQEBEwEBAQgNCQkZL4RhAQEBAQMSARYEEwEBHRsRAQIGEQQBASEHORQJCQEEwgaiBYDF6c
aAYEpARxhBSgCinWFMAEBBYQxGINKAQEBAQEBAQMBAQEBAQEBGAmGPoRUhBgBEQEZBQwTCwoCD4I
FZIIvIDCFVQYBiS2IRIRngzeFaYx7gkmBNx6DdyCBXnlBhmCBIAF/AQEB

X-IronPort-AV: E=Sophos;i="5.31,358,1473134400";

d="scan'208,217";a="233604251"

Thread-Topic: RE: Heads Up---435-B RAI

Subject: [External_Sender] RE: Heads Up---435-B RAI

Received: from mailgate.doe.gov ([205.254.128.11])

by mail1.nrc.gov with ESMTP/TLS/AES256-SHA; 17 Oct 2016 14:18:20 -0400

X-Outbound: DOEHQ-Passed

X-M-MSG:

X-WSS-ID: 00F7EUH-01-6CH-02

Received: from gcc01-dm2-obe.outbound.protection.outlook.com (

mail-dm2gcc01lp0056.outbound.protection.outlook.com [23.103.198.56]) (using TLSv1.2 with cipher
ECDHE-RSA-AES256-SHA384 (256/256 bits)) (No client certificate requested) by mailgate.doe.gov (

Postfix) with ESMTPS id 22326AF7C96 for <Norma.Garcia-Santos@nrc.gov>; Mon, 17 Oct 2016 14:18:16

-0400 (EDT)

DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed; d=USDOE.onmicrosoft.com;

s=selector1-nnsa-doe-gov; h=From:Date:Subject:Message-ID:Content-Type:MIME-Version;

bh=ov8gfaupK4zqv7+YstNecANPnAOMw0N++Nazsu9eXKQ=;

b=Yx1dxPtOj0mp5CInd2QyEUEgfTkulKUSLIR4Wp+NsEM5Qx0tpwRFZnrgeXnh8uDYL/szbMryHCzM0cbUJr
l22WqxHFR+ab20k7i8Fv8+FeQTz4Bf+AaoiYAI4Chl8cm6OEqls9QExltV9tVKHW9REBJNKF1WeAB/pUBVp9
F1GM=

Received: from BN1PR09MB0259.namprd09.prod.outlook.com (10.160.80.20) by

BN1PR09MB0257.namprd09.prod.outlook.com (10.160.80.18) with Microsoft SMTP Server

(version=TLS1_2,

cipher=TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384_P384) id 15.1.659.11; Mon, 17 Oct 2016

18:18:15 +0000

Received: from BN1PR09MB0259.namprd09.prod.outlook.com ([10.160.80.20]) by

BN1PR09MB0259.namprd09.prod.outlook.com ([10.160.80.20]) with mapi id 15.01.0669.018; Mon, 17 Oct

2016 18:18:15 +0000

From: "Barela, Maximo" <Maximo.Barela@nnsa.doe.gov>

To: "Garcia Santos, Norma" <Norma.Garcia-Santos@nrc.gov>

Thread-Topic: Heads Up---435-B RAI

Thread-Index: AdloosmWClgGTHkvTj2UFa3Elhnzcg==

Importance: high

X-Priority: 1

Disposition-Notification-To: "Barela, Maximo" <Maximo.Barela@nnsa.doe.gov>

Date: Mon, 17 Oct 2016 18:18:14 +0000

Message-ID:

<BN1PR09MB0259ADCEB29F314FF045F15FD0D00@BN1PR09MB0259.namprd09.prod.outlook.com>

Accept-Language: en-US

Content-Language: en-US

X-MS-Has-Attach:

X-MS-TNEF-Correlator:

authentication-results: spf=none (sender IP is) smtp.mailfrom=Maximo.Barela@nnsa.doe.gov;

x-originating-ip: [206.197.198.20]

x-ms-office365-filtering-correlation-id: 26223d4f-e6dc-4b24-5fe8-08d3f6b9f655

x-microsoft-exchange-diagnostics:

1;BN1PR09MB0257;7:KGSdoBMbi1vSjnqEvTW9tEIQYDcdDSfHjw+aCPM0iijpTyJYJgZsonkl9u0qvhVCH6rV
7N2YXdC4nOYSfGH9wmjzwCrlyPvpIXW0XPmPjVFCY2PpElS7GXJMdcIM3+T+MnrN2O3FPG0irtPHYINkn8R
9l+r2rIAfE+iqVUA3qh3m52JTPuy/bnUaVb/d6KZQFi0sBA7YbGIG0qgRgQ4niDatcxilsCRBJK2QhOac1Oj5lru
aA4TwptruXTL+sfGfy6seZ8Sn8y59l1dDkZ6G7GyNudNIw9x8z55h8UI0peLcYFuZxZ/InfVR9YE0kM8IMlpW
910ErJxdiquZ5EVESb+b2FRAAhYg4LC4R08iE=;20:uV05nHU3RPSIWmTfQmnMf+5u0KnBbF3Ag0iY3G2qb5
uclQ6Z+TUEOKWGWQZOzzO8ldkGz3zuCAEWBZdiQrxtGzy0E6JdktuaV23Pad43RcKP5OD2R/7KmfAU+BZ8q
GXGuji3LGG4UnOqS6hkb4kEjWGeWFIgh0Vr7cDUgM1s7Sdinko84jiBYVdyVYZYAik4IXyzZLRvrbDogimyQ9
+UoJ6izIBLAY8Znd3F8RbYpOhrVGs+T7dpSbPCzHopWSJyK

x-microsoft-antispam: UriScan;;BCL:0;PCL:0;RULEID;;SRVR:BN1PR09MB0257;

x-microsoft-antispam-prvs:

<BN1PR09MB02573737DE756B0D18C2B176D0D00@BN1PR09MB0257.namprd09.prod.outlook.com>

x-exchange-antispam-report-test: UriScan:(21748063052155);

x-exchange-antispam-report-cfa-test:

BCL:0;PCL:0;RULEID:(6040176)(601004)(2401047)(5005006)(8121501046)(10201501046)(3002001)(605
5026);SRVR:BN1PR09MB0257;BCL:0;PCL:0;RULEID;;SRVR:BN1PR09MB0257;

x-forefront-prvs: 0098BA6C6C

x-forefront-antispam-report:

SFV:NSPM;SFS:(10009020)(7916002)(199003)(252514010)(377454003)(43234003)(189002)(51444003)(
66066001)(74316002)(7696004)(99286002)(105586002)(106356001)(7846002)(5890100001)(81156014
) (76576001)(8936002)(92566002)(102836003)(3846002)(6116002)(2906002)(790700001)(97736004)(3
3656002)(11100500001)(586003)(3660700001)(19580395003)(19580405001)(9686002)(8676002)(6873
6007)(19300405004)(15975445007)(450100001)(77096005)(81686999)(81166006)(7736002)(18999800
1)(50986999)(86362001)(16236675004)(42882006)(6916009)(2900100001)(5660300001)(10400500002
) (54356999)(107886002)(3280700002)(5002640100001)(101416001)(87936001)(110136003)(19625215
002)(122556002);DIR:OUT;SFP:1101;SCL:1;SRVR:BN1PR09MB0257;H:BN1PR09MB0259.namprd09.prod.
outlook.com;FPR;;SPF:None;PTR:InfoNoRecords;A:0;MX:1;LANG:en;

spamdagnosticoutput: 1:99

spamdiagnosticmetadata: NSPM
Content-Type: multipart/alternative;
boundary=_000_BN1PR09MB0259ADCEB29F314FF045F15FD0D00BN1PR09MB0259namp_
MIME-Version: 1.0
X-MS-Exchange-CrossTenant-originalarrivaltime: 17 Oct 2016 18:18:14.8932 (UTC)
X-MS-Exchange-CrossTenant-fromentityheader: Hosted
X-MS-Exchange-CrossTenant-id: 6b183ecc-4b55-4ed5-b3f8-7f64be1c4138
X-MS-Exchange-Transport-CrossTenantHeadersStamped: BN1PR09MB0257
Return-Path: Maximo.Barela@nnsa.doe.gov
X-MS-Exchange-Organization-Network-Message-Id: 6c43d779-311e-42d3-a574-08d3f6b9f992
X-MS-Exchange-Organization-AVStamp-Mailbox: SYMANTEC;1;0;info
X-MS-Exchange-Organization-AuthSource: HQPWMSMRS02.nrc.gov
X-MS-Exchange-Organization-AuthAs: Anonymous