From: "Adkins, Harold E" <Harold.Adkins@pnl.gov>
To: <Kevin.Ezell@garlock.com>, <bill.bracey@transnuclear.com>
Date: Tue, Jul 27, 2004 11:04 AM
Subject: RE: Another inquiry

Kevin,

Attached is the time/temperature history of the seals.

Please feel free to call me if you have any questions.

Harold E. Adkins, Jr.
Senior Research Engineer
Fluid and Computational Engineering Group,
Pacific Northwest National Laboratory
P.O. Box 999, Mail Stop K7-15, Richland, WA 99352
509-372-6629 voice; 509-375-3865 fax; Harold.Adkins@pnl.gov

-----Original Message-----
From: Kevin.Ezell@garlock.com [mailto:Kevin.Ezell@garlock.com]
Sent: Tuesday, July 27, 2004 5:08 AM
To: csb1@nrc.gov; bill.bracey@transnuclear.com
Cc: Adkins, Harold E
Subject: RE: Another inquiry

Thank you for your efforts. In the profile we received, it does not appear the cask was actually in a "cool-down" period because the temperature was actually increasing. Probably a simple problem with the equation.

Thanks,

Kevin Ezell
Applications Engineer
Garlock Helicoflex
2770 The Boulevard
Columbia, SC 29209
Phone: (803) 783-1880
Fax: (803) 783-4279

-----Original Message-----
From: Christopher Bajwa [mailto:csb1@nrc.gov]
Sent: Tuesday, July 27, 2004 1:11 AM
To: Kevin.Ezell@garlock.com
Cc: Harold.Adkins@pnl.gov
Subject: RE: Another inquiry

Kevin,

We will provide a new time temperature profile for you. The temperatures that we are providing are from a cask analysis with the cask offset from the fire. It includes a 7 hour fire exposure followed by a 300 hour cool-down period.

Portions Ex 5 B/16

-Chris Bajwa

>>> <Kevin.Ezell@garlock.com> 07/26/04 08:49AM >>>
Chris,

We are trying to get organized to provide the data that you have requested. We do have some questions as follows:

1). We need to verify the actual temperature you need to have tested and the time period for that test. Below, you mention [redacted]F for a brief time; however, the time temperature profile has a maximum temperature of [redacted]F. Ex5

2). Furthermore, the time/temperature profile is very strange for a fire. The temperature appears to be climb to a maximum of [redacted] F at 10 hours. THEN, it drops to [redacted] after about 20 hours. From there, it continues to gradually rise, even after 300 hours. Please verify the profile and let us know what is correct.

Ex5

Regards,

Kevin Ezell
Applications Engineer
Garlock Helicoflex
2770 The Boulevard
Columbia, SC 29209
Phone: (803) 783-1880
Fax: (803) 783-4279

-----Original Message-----
From: Christopher Bajwa [mailto:CSB1@nrc.gov]
Sent: Friday, July 09, 2004 8:55 AM
To: Kevin.Ezell@garlock.com
Subject: Another inquiry

Kevin,

I must apologize for sort of dropping off the face of the earth for a little while. I have been working on some other high priority work that has taken a lot of time and attention, and I haven't been able to follow up on the seal information.

Ex5

Basically we are seeing a temperature of [redacted]F for the Helicoflex seal (HND type Aluminum jacketed double metallic), and while we have confidence, per our discussions with you, that this seal will continue to perform as designed at that temperature, we are looking for something more "official" to support our conclusions.

You looked into this for us before, and I was wondering if there would be anything from Helicoflex (perhaps from France) that we would be able to reference (a report, or other document, perhaps). We are now at the point where we need to have this type of document to support our conclusions.

Thanks in advance for your help.

Ex 5, portions

-Chris Bajwa

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CC: <csb1@nrc.gov>