

EPA-1643

Ben DeAngelo

04/06/2010 04:56 PM

To

cc

bcc

Subject UPGRADE C:\Documents and Settings\owner\My Documents\Endangerment\Response to Public Comments\RTC draft Volume 5 HH and AQ 110609.doc

(b)(5) Deliberative

- RTC draft Volume 5 HH and AQ 110609.doc

EPA-1644

Ben DeAngelo

04/06/2010 04:56 PM

To

cc

bcc

Subject UPGOAD C:\Documents and Settings\owner\My Documents\Endangerment\Response to Public Comments\RTC draft Volume 6 Ag and Forestry 110609.doc

(b)(5) Deliberative

- RTC draft Volume 6 Ag and Forestry 110609.doc

EPA-EF-002745

EPA-1645

Ben DeAngelo

04/06/2010 04:56 PM

To

cc

bcc

Subject UPGRADE C:\Documents and Settings\owner\My Documents\Endangerment\Response to Public Comments\RTC draft Volume 7 Water, Coastal, Eco 110609.doc

(b)(5) Deliberative

- RTC draft Volume 7 Water, Coastal, Eco 110609.doc

EPA-EF-002746

EPA-1646

Ben DeAngelo

04/06/2010 04:56 PM

To

cc

bcc

Subject UPGRADE C:\Documents and Settings\owner\My Documents\Endangerment\Response to Public Comments\RTC draft Volume 8 Other Sectors 102409 + DINA.doc

(b)(5) Deliberative

- RTC draft Volume 8 Other Sectors 102409 + DINA.doc

EPA-1647

Ben DeAngelo

04/06/2010 04:56 PM

To

cc

bcc

Subject UPGOAD C:\Documents and Settings\owner\My Documents\Endangerment\Response to Public Comments\RTC draft Volume 9 Legal 102209.doc

(b)(5) Deliberative

- RTC draft Volume 9 Legal 102209.doc

EPA-EF-002748

EPA-1648

Ben DeAngelo

04/06/2010 04:56 PM

To

cc

bcc

Subject UPGOAD C:\Documents and Settings\owner\My Documents\Endangerment\Response to Public Comments\Cost Benefit 102809.doc

(b)(5) Deliberative

- Cost Benefit 102809.doc

EPA-1649

Ben DeAngelo

04/06/2010 04:56 PM

To

cc

bcc

Subject UPGOAD C:\Documents and Settings\owner\My Documents\Endangerment\Response to Public Comments\RTC draft Volume 11 Cause or Contribute 110609.doc

(b)(5) Deliberative

- RTC draft Volume 11 Cause or Contribute 110609.doc

EPA-EF-002750

EPA-1650

Ben DeAngelo

04/06/2010 04:56 PM

To

cc

bcc

Subject UPGOAD C:\Documents and Settings\owner\My Documents\Endangerment\Response to Public Comments\RTC draft Volume 12 Implications 110609.doc

(b)(5) Deliberative

- RTC draft Volume 12 Implications 110609.doc

EPA-EF-002751

EPA-1651

Ben DeAngelo

04/06/2010 04:56 PM

To

cc

bcc

Subject UPGLOAD C:\Documents and Settings\owner\My Documents\Endangerment\Response to Public Comments\RTC draft Volume 1 General TSD Approach 110609.doc

(b)(5) Deliberative

- RTC draft Volume 1 General TSD Approach 110609.doc

EPA-EF-002752

EPA-1652

Ben DeAngelo

04/06/2010 04:56 PM

To

cc

bcc

Subject UPLoad C:\Documents and Settings\owner\My Documents\Endangerment\Response to Public Comments\RTC draft Volume 2 Validity of Data 110609.doc

(b)(5) Deliberative

- RTC draft Volume 2 Validity of Data 110609.doc

EPA-EF-002753

EPA-1653

Ben DeAngelo

04/06/2010 04:56 PM

To

cc

bcc

Subject UPLOADED C:\Documents and Settings\owner\My Documents\Endangerment\Response to Public Comments\RTC draft Volume 3 Attribution 110309.doc

(b)(5) Deliberative

- RTC draft Volume 3 Attribution 110309.doc

EPA-EF-002754

EPA-1654

"Tracy Parham"
<Tracy.Parham@erg.com>
11/13/2009 01:09 PM

To William Perkins, "Mae Thomas"
cc "Tracy Parham"
bcc
Subject Questions regarding Comments

Hi Bill,

I hope everything is going well. Mae had a personal emergency and had to step away from the office for a bit, so she asked me to forward these files/questions on to you. (Everyone is okay, and she should be back this afternoon.)

1. 2979.1 - This comment is a free-standing graph. I have attached the "base" comment associated with it, 2979, which has been previously parsed on the web into several sections. The second excerpt references the graph in 9.6.2.4.

(b)(5) Deliberative

2. 3768.1 - This is the Declaration of Independence from Fossil Fuels. (b)(5) Deliberative

(b)(5) Deliberative

3. 8321 - This comment contains a handwritten cover page, followed by a personal paper on the legal implications of exploring the interior of the earth (for solutions to combat global warming). (b)(5) Deliberative

(b)(5) Deliberative

Please let me know how you would like these to be processed, and if you have any further questions. Thanks!

Tracy

Tracy DeHaven Parham
Environmental Scientist

Eastern Research Group, Inc.
1600 Perimeter Park Drive
Morrisville, NC 27560
(919)-468-7901 (phone)
(919)-468-7801 (fax)



EPA-HQ-OAR-2009-0171-8321.pdf



EPA-HQ-OAR-2009-0171-3768.1.doc



EPA-HQ-OAR-2009-0171-2979.1.pdf



EPA-HQ-OAR-2009-0171-2979_CP.html

available at
regulations.gov

EPA-EF-002755

EPA-1655

**Rona
Birnbaum/DC/USEPA/US**
11/13/2009 01:25 PM

To Jeremy Martinich, Lesley Jantarasami
cc
bcc

Subject Fw: RTC Volume 1

----- Forwarded by Rona Birnbaum/DC/USEPA/US on 11/13/2009 01:26 PM -----

From: Dina Kruger/DC/USEPA/US
To: Rona Birnbaum/DC/USEPA/US@EPA, Suzanne Kocchi/DC/USEPA/US@EPA
Date: 11/13/2009 01:18 PM
Subject: RTC Volume 1

Here are my comments. (b)(5) Deliberative Also, will there be more things coming this weekend? (I forget what we decided...) I'm going to put in my last comments on Volume 7, and then turn to health.

(b)(5) Deliberative

(b)(5) Deliberative

RTC_draft_Volume_1_110609 + DINA.doc RTC_draft_Volume_1_110609 + DINA+clean.doc

Dina Kruger
Director, Climate Change Division
USEPA

202-343-9039 (phone)
202-343-2290 (fax)

EPA-EF-002756

EPA-1656

Suzanne
Kocchi/DC/USEPA/US
11/13/2009 01:31 PM

To Rona Birnbaum, Dina Kruger
cc
bcc

Subject Re: RTC Volume 1

Thanks.

I thought we discussed Rona giving you 2,3,4 today or Sat. Then either Sun or Mon you get 10 and 11.

I will try to get you my marked up version of Ag this weekend as well.

Rona Birnbaum

----- Original Message -----

From: Rona Birnbaum
Sent: 11/13/2009 01:24 PM EST
To: Dina Kruger
Cc: Suzanne Kocchi
Subject: Re: RTC Volume 1

great. I'll should be able to give to you Vol 2, 3 and possibly 4. Question is, would it be useful for you to see my track changes version or do you want to see all my comments implemented. (b)(5) Deliberative [REDACTED] may not get to implement all my changes on Vol 2 and 3. There certainly are not so many track changes that you couldn't have a good read.

Dina Kruger Here are my comments. (b)(5) Deliberative 11/13/2009 01:18:41 PM

From: Dina Kruger/DC/USEPA/US
To: Rona Birnbaum/DC/USEPA/US@EPA, Suzanne Kocchi/DC/USEPA/US@EPA
Date: 11/13/2009 01:18 PM
Subject: RTC Volume 1

Here are my comments. (b)(5) Deliberative [REDACTED]. Also, will there be more things coming this weekend? (I forget what we decided...) I'm going to put in my last comments on Volume 7, and then turn to health.

[attachment "RTC_draft_Volume_1_110609 + DINA.doc" deleted by Rona Birnbaum/DC/USEPA/US]
[attachment "RTC_draft_Volume_1_110609 + DINA+clean.doc" deleted by Rona Birnbaum/DC/USEPA/US]

Dina Kruger
Director, Climate Change Division
USEPA

202-343-9039 (phone)
202-343-2290 (fax)

EPA-EF-002757

EPA-1657

Jeremy
Martinich/DC/USEPA/US
11/13/2009 01:39 PM

To David Chalmers
cc
bcc
Subject Fw: Addition to 4.5

(b)(5) Deliberative
[Redacted]

Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

----- Forwarded by Jeremy Martinich/DC/USEPA/US on 11/13/2009 01:39 PM -----

From: Jeremy Martinich/DC/USEPA/US
To: David Chalmers/DC/USEPA/US@EPA
Date: 11/13/2009 01:23 PM
Subject: Fw: Addition to 4.5

This too: (b)(5) Deliberative

[Redacted]

Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

----- Forwarded by Jeremy Martinich/DC/USEPA/US on 11/13/2009 01:23 PM -----

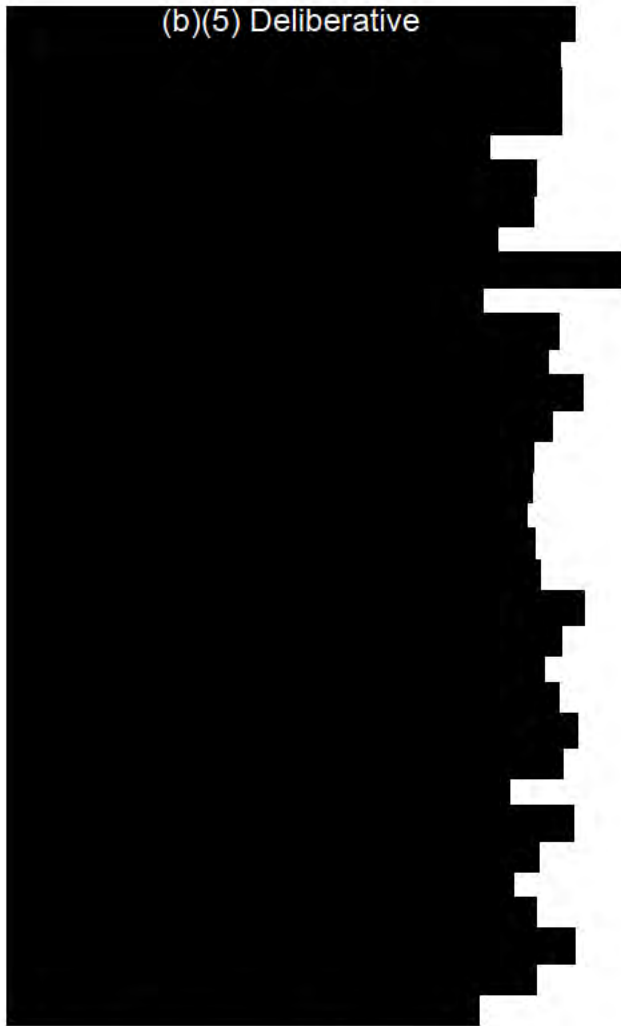
From: Jeremy Martinich/DC/USEPA/US

EPA-EF-002758

To: David Chalmers/DC/USEPA/US@EPA
Date: 11/13/2009 01:03 PM
Subject: Addition to 4.5

Call me when you get this....

(b)(5) Deliberative



Downton, M., and R.A. Pielke (2005) How accurate are disaster loss data? The case of U.S. flood damage. *Natural Hazards* , 35:211–228.

Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

EPA-1658

Ben DeAngelo

04/06/2010 04:57 PM

To

cc

bcc

Subject UPGOAD C:\Documents and Settings\owner\My Documents\Endangerment\Response to Public Comments\RTC_draft_Volume_1_110609 + DINA+clean.doc

(b)(5) Deliberative

- RTC_draft_Volume_1_110609 + DINA+clean.doc

EPA-EF-002760

EPA-1659

Lesley Jantarasami
04/01/2010 03:42 PM

To
cc
bcc

Subject UPGOAD C:\Documents and Settings\ljantara\My Documents\Endangerment\01_Full Doc\03_Dina Review\RTC_draft_Volume_1_110609 + DINA+clean.doc

(b)(5) Deliberative

- RTC_draft_Volume_1_110609 + DINA+clean.doc

EPA-EF-002761

EPA-1660

"Wood, Allison"
<awood@hunton.com>
11/13/2009 02:35 PM

To Jeremy Martinich, Group A-AND-R-DOCKET
cc csunstein, kneyland
bcc
Subject Supplemental Comments for Docket No.
EPA-HQ-OAR-2009-0171

Dear Mr. Martinich,

Attached please find supplemental comments of the Utility Air Regulatory Group on EPA's Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act. Please contact me if you have any questions regarding these comments.

Sincerely,

Allison D. Wood, Esq.
Counsel to the Utility Air Regulatory Group

<<Final Additional Supplemental Comments on Proposed Endangerment Finding.pdf>>



Final Additional Supplemental Comments on Proposed Endangerment Finding.pdf

available at
regulations.gov

EPA-EF-002762

EPA-1661

Jason
Samenow/DC/USEPA/US
11/13/2009 03:06 PM

To Lesley Jantarasami
cc David Chalmers, Jeremy Martinich
bcc
Subject Re: this comment needs a home

Thanks... Got it in there.

Jason

Lesley Jantarasami (b)(5) Deliberative 11/13/2009 02:55:42 PM

From: Lesley Jantarasami/DC/USEPA/US
To: Jason Samenow/DC/USEPA/US@EPA
Cc: David Chalmers/DC/USEPA/US@EPA, Jeremy Martinich/DC/USEPA/US@EPA
Date: 11/13/2009 02:55 PM
Subject: Re: this comment needs a home

(b)(5) Deliberative

Jason Samenow (b)(5) Deliberative 11/13/2009 02:51:22 PM

From: Jason Samenow/DC/USEPA/US
To: Lesley Jantarasami/DC/USEPA/US@EPA
Cc: David Chalmers/DC/USEPA/US@EPA, Jeremy Martinich/DC/USEPA/US@EPA
Date: 11/13/2009 02:51 PM
Subject: Re: this comment needs a home

(b)(5) Deliberative

Thanks,
Jason

Lesley Jantarasami Hi guys, This comment from Carol'... 11/13/2009 02:45:03 PM

From: Lesley Jantarasami/DC/USEPA/US
To: Jason Samenow/DC/USEPA/US@EPA, Jeremy Martinich/DC/USEPA/US@EPA, David Chalmers/DC/USEPA/US@EPA
Date: 11/13/2009 02:45 PM
Subject: this comment needs a home

Hi guys,

This comment from Carol's document was originally placed in (b)(5) Deliberative

(b)(5) Deliberative

thanks, Lesley

Comment: Addressed in preamble

(b)(5) Deliberative



Response: Addressed in preamble

EPA-1662

**Rona
Birnbaum/DC/USEPA/US**
11/13/2009 03:10 PM

To Dina Kruger, Carol Holmes, John Hannon
cc Ben DeAngelo, Jason Samenow
bcc
Subject additional comment from Hunton and Williams

FYI. OMB was cc'd on this.

----- Forwarded by Rona Birnbaum/DC/USEPA/US on 11/13/2009 03:07 PM -----

----- Forwarded by Jeremy Martinich/DC/USEPA/US on 11/13/2009 02:44 PM -----

From: "Wood, Allison" <awood@hunton.com>
To: Jeremy Martinich/DC/USEPA/US@EPA, Group A-AND-R-DOCKET@EPA
Cc: (b)(6), (b)(6)
Date: 11/13/2009 02:35 PM
Subject: Supplemental Comments for Docket No. EPA-HQ-OAR-2009-0171

Dear Mr. Martinich,

Attached please find supplemental comments of the Utility Air Regulatory Group on EPA's Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act. Please contact me if you have any questions regarding these comments.

Sincerely,

Allison D. Wood, Esq.
Counsel to the Utility Air Regulatory Group

<<Final Additional Supplemental Comments on Proposed Endangerment Finding.pdf>>



Final Additional Supplemental Comments on Proposed Endangerment Finding.pdf

available at
regulations.gov

EPA-EF-002765

EPA-1663

Dina Kruger/DC/USEPA/US

11/13/2009 03:22 PM

To Rona Birnbaum

cc

bcc

Subject Re: RTC Volume 1

probably send with your track changes.

Dina Kruger
Director, Climate Change Division
USEPA

202-343-9039 (phone)
202-343-2290 (fax)

Rona Birnbaum great. I'll should be able to give to you... 11/13/2009 01:24:41 PM

From: Rona Birnbaum/DC/USEPA/US
To: Dina Kruger/DC/USEPA/US@EPA
Cc: Suzanne Kocchi/DC/USEPA/US@EPA
Date: 11/13/2009 01:24 PM
Subject: Re: RTC Volume 1

great. I'll should be able to give to you Vol 2, 3 and possibly 4. Question is, would it be useful for you to see my track changes version or do you want to see all my comments implemented. (b)(5) Deliberative [REDACTED] may not get to implement all my changes on Vol 2 and 3. There certainly are not so many track changes that you couldn't have a good read.

Dina Kruger Here are my comments. You might rev... 11/13/2009 01:18:41 PM

From: Dina Kruger/DC/USEPA/US
To: Rona Birnbaum/DC/USEPA/US@EPA, Suzanne Kocchi/DC/USEPA/US@EPA
Date: 11/13/2009 01:18 PM
Subject: RTC Volume 1

Here are my comments. You might review it in the clean version, as I made a lot of comments. Also, will there be more things coming this weekend? (I forget what we decided...) I'm going to put in my last comments on Volume 7, and then turn to health.

[attachment "RTC_draft_Volume_1_110609 + DINA.doc" deleted by Rona Birnbaum/DC/USEPA/US]
[attachment "RTC_draft_Volume_1_110609 + DINA+clean.doc" deleted by Rona Birnbaum/DC/USEPA/US]

Dina Kruger
Director, Climate Change Division
USEPA

202-343-9039 (phone)
202-343-2290 (fax)

EPA-EF-002766

EPA-1664

**Rona
Birnbaum/DC/USEPA/US**
11/13/2009 04:00 PM

To: Jeremy Martinich, Lesley Jantarasami
cc
bcc
Subject: Fw: Volume 7 (Water)

----- Forwarded by Rona Birnbaum/DC/USEPA/US on 11/13/2009 04:02 PM -----

From: Dina Kruger/DC/USEPA/US
To: Rona Birnbaum/DC/USEPA/US@EPA, Suzanne Kocchi/DC/USEPA/US@EPA
Date: 11/13/2009 03:26 PM
Subject: Volume 7 (Water)

Here's this one - clean and track changes. (b)(5) Deliberative
[Redacted]

Dina

(b)(5) Deliberative (b)(5) Deliberative (b)(5) Deliberative

RTC_draft_Volume_7_10609 + DINA.doc Notes & Model responses.doc RTC_draft_Volume_7_10609 + DINA+clean.doc
(b)(5) Deliberative
STOCK LANGUAGE.doc

Dina Kruger
Director, Climate Change Division
USEPA

202-343-9039 (phone)
202-343-2290 (fax)

EPA-1665

**Rona
Birnbau/DC/USEPA/US**
11/13/2009 04:08 PM

To Lesley Jantarasami
cc Jeremy Martinich
bcc
Subject Re: Fw: Volume 7 (Water)

yes, it would! thanks for suggesting that.

Lesley Jantarasami I'm also available to help out with th... 11/13/2009 04:06:09 PM

From: Lesley Jantarasami/DC/USEPA/US
To: Rona Birnbau/DC/USEPA/US@EPA
Cc: Jeremy Martinich/DC/USEPA/US@EPA
Date: 11/13/2009 04:06 PM
Subject: Re: Fw: Volume 7 (Water)

I'm also available to help out with this, if you guys think an extra set of eyes would be helpful.

Lesley

Rona Birnbau jeremy, there will have to be much that... 11/13/2009 04:02:29 PM

From: Rona Birnbau/DC/USEPA/US
To: Jeremy Martinich/DC/USEPA/US@EPA
Cc: Lesley Jantarasami/DC/USEPA/US@EPA
Date: 11/13/2009 04:02 PM
Subject: Fw: Volume 7 (Water)

jeremy, there will have to be much that (b)(5) Deliberative

thanks!!

----- Forwarded by Rona Birnbau/DC/USEPA/US on 11/13/2009 04:02 PM -----

From: Dina Kruger/DC/USEPA/US
To: Rona Birnbau/DC/USEPA/US@EPA, Suzanne Kocchi/DC/USEPA/US@EPA
Date: 11/13/2009 03:26 PM
Subject: Volume 7 (Water)

Here's this one - clean and track changes. (b)(5) Deliberative

Dina

[attachment "RTC_draft_Volume_7_10609 + DINA.doc" deleted by Rona Birnbau/DC/USEPA/US]
[attachment "Notes & Model responses.doc" deleted by Rona Birnbau/DC/USEPA/US] [attachment
"RTC_draft_Volume_7_10609 + DINA+clean.doc" deleted by Rona Birnbau/DC/USEPA/US]
[attachment "STOCK LANGUAGE.doc" deleted by Rona Birnbau/DC/USEPA/US]

EPA-EF-002768

Dina Kruger
Director, Climate Change Division
USEPA

202-343-9039 (phone)
202-343-2290 (fax)

EPA-1666

David
Chalmers/DC/USEPA/US
11/13/2009 04:10 PM

To Jeremy Martinich
cc
bcc
Subject Re: Flood damage response

I think this looks really good. I have only two suggestions: (b)(5) Deliberative

[Redacted]

Cheers,

David Chalmers
ORISE Fellow
U.S. EPA, Climate Change Division
202.343.9814

-----Jeremy Martinich/DC/USEPA/US wrote: -----

To: David Chalmers/DC/USEPA/US@EPA
From: Jeremy Martinich/DC/USEPA/US
Date: 11/13/2009 03:37PM
Subject: Flood damage response

Hey dude,

(b)(5) Deliberative

Comment:

(b)(5) Deliberative

Response:

(b)(5) Deliberative

(b)(5) Deliberative



Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

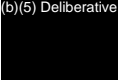
EPA-1667

Lesley Jantarasami
04/01/2010 03:42 PM

To
cc
bcc

Subject UPGOAD C:\Documents and Settings\ljantara\My Documents\Endangerment\01_Full Doc\03_Dina Review\RTC_draft_Volume_7_10609 + DINA.doc

(b)(5) Deliberative

 - RTC_draft_Volume_7_10609 + DINA.doc

EPA-EF-002772

EPA-1668

Lesley Jantarasami
04/01/2010 03:42 PM

To
cc
bcc

Subject UPLOAD C:\Documents and Settings\ljantara\My
Documents\Endangerment\01_Full Doc\03_Dina
Review\RTC_draft_Volume_7_10609 + DINA+clean.doc

(b)(5) Deliberative

- RTC_draft_Volume_7_10609 + DINA+clean.doc

EPA-EF-002773

EPA-1669

Lesley Jantarasami
04/01/2010 03:42 PM

To
cc
bcc

Subject UPGLOAD C:\Documents and Settings\ljantara\My Documents\Endangerment\01_Full Doc\03_Dina Review\STOCK LANGUAGE.doc

(b)(5) Deliberative

- STOCK LANGUAGE.doc

EPA-EF-002774

EPA-1670

Suzanne
Kocchi/DC/USEPA/US
11/13/2009 04:31 PM

To Dina Kruger, Rona Birnbaum
cc
bcc
Subject Re: additional comment from Hunton and Williams

Dina is correct - (b)(5) Deliberative
[Redacted]

[Redacted]

Dina Kruger

----- Original Message -----

From: Dina Kruger
Sent: 11/13/2009 04:16 PM EST
To: Rona Birnbaum; Suzanne Kocchi
Subject: Fw: additional comment from Hunton and Williams

He raises a good question. (b)(5) Deliberative
[Redacted]

Sent by EPA Wireless E-Mail Services
John Hannon

----- Original Message -----

From: John Hannon
Sent: 11/13/2009 04:09 PM EST
To: Rona Birnbaum
Cc: Ben DeAngelo; Carol Holmes; Dina Kruger; Jason Samenow
Subject: Re: additional comment from Hunton and Williams

Rona,

(b)(5) Deliberative
[Redacted]
Just let me know what the plans are. Thanks.

John Hannon
Office of General Counsel
U.S. Environmental Protection Agency
1200 Pennsylvania Ave. NW (MC 2344A)
Washington, D.C. 20460
Phone (202) 564-5563
Fax (202) 564-5603

Rona Birnbaum FYI. OMB was cc'd on this. ----- Forw... 11/13/2009 03:10:43 PM

From: Rona Birnbaum/DC/USEPA/US

EPA-EF-002775

To: Dina Kruger/DC/USEPA/US@EPA, Carol Holmes/DC/USEPA/US@EPA, John Hannon/DC/USEPA/US@EPA
Cc: Ben DeAngelo/DC/USEPA/US@EPA, Jason Samenow/DC/USEPA/US@EPA
Date: 11/13/2009 03:10 PM
Subject: additional comment from Hunton and Williams

FYI. OMB was cc'd on this.

----- Forwarded by Rona Birnbaum/DC/USEPA/US on 11/13/2009 03:07 PM -----

----- Forwarded by Jeremy Martinich/DC/USEPA/US on 11/13/2009 02:44 PM -----

From: "Wood, Allison" <awood@hunton.com>
To: Jeremy Martinich/DC/USEPA/US@EPA, Group A-AND-R-DOCKET@EPA
Cc: (b)(6), (b)(6)
Date: 11/13/2009 02:35 PM
Subject: Supplemental Comments for Docket No. EPA-HQ-OAR-2009-0171

Dear Mr. Martinich,

Attached please find supplemental comments of the Utility Air Regulatory Group on EPA's Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act. Please contact me if you have any questions regarding these comments.

Sincerely,

Allison D. Wood, Esq.
Counsel to the Utility Air Regulatory Group

<<Final Additional Supplemental Comments on Proposed Endangerment Finding.pdf>> [attachment "Final Additional Supplemental Comments on Proposed Endangerment Finding.pdf" deleted by John Hannon/DC/USEPA/US]

EPA-1671

Carol Holmes/DC/USEPA/US To Lesley Jantarasami
11/13/2009 04:32 PM cc
bcc
Subject Re: comments for vol 9

Hi -- I think they are both covered already by responses in preamble. Thanks

Confidential communication for internal deliberations only; Attorney-client, attorney work product and/or enforcement privilege; Do not distribute outside EPA or DOJ

Carol S. Holmes
Office of General Counsel
U.S. Environmental Protection Agency
1200 Pennsylvania Ave, NW (MC 2344A)
Washington, DC 20460
Phone (202) 564-8709
Fax (202) 564-5603

Lesley Jantarasami Hi Carol, I'm just double-checking... 11/13/2009 04:13:06 PM

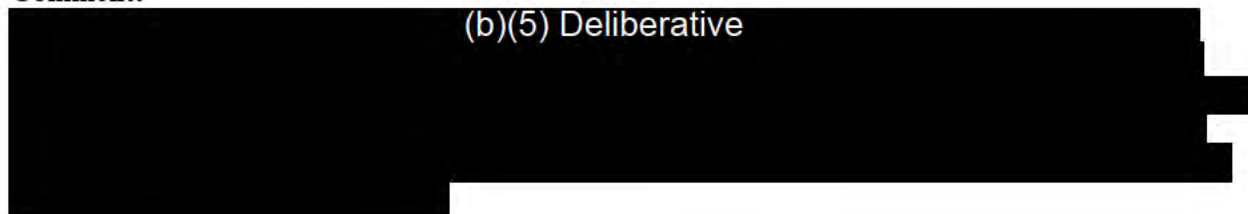
From: Lesley Jantarasami/DC/USEPA/US
To: Carol Holmes/DC/USEPA/US@EPA
Date: 11/13/2009 04:13 PM
Subject: comments for vol 9

Hi Carol,

I'm just double-checking with you that the comment summaries below have already been captured by existing summaries from the preamble and will be responded to somewhere in Vol 9. I found them in excerpts for Vol 12, but it seems like they belong in 9.

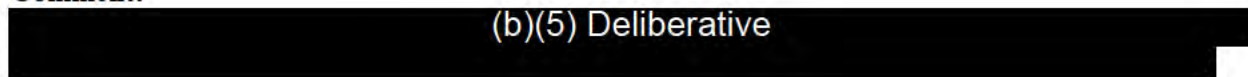
Comment:

(b)(5) Deliberative



Comment:

(b)(5) Deliberative



Thanks, and have a great and hopefully not too rainy weekend!

Lesley

EPA-EF-002777

EPA-1672

**William
Perkins/DC/USEPA/US**
11/13/2009 04:53 PM

To Lesley Jantarasami
cc
bcc
Subject Where should these excerpts go?

Lesley,

As discussed. Thanks.

Cheers,

Bill

(b)(5) Deliberative

(b)(5) Deliberative

9_3_Adherence to the Data Quality Act to LJ.doc 9_2_1_Use of non-EPA assessments to LJ.doc

Bill Perkins
Climate Change Adaptation Analyst
Climate Science and Impacts Branch
Climate Change Division
U.S. Environmental Protection Agency
perkins.william@epa.gov
(O) 202.343.9460
(F) 202.343.2202
(C) (b)(6)

EPA-EF-002778

EPA-1673

**Rona
Birnbaum/DC/USEPA/US**

11/13/2009 05:10 PM

To John Hannon

cc Ben DeAngelo, Carol Holmes, Dina Kruger, Jason Samenow
bcc

Subject Re: additional comment from Hunton and Williams

hi John, glad you asked. Yes, we are planning on breaking up the document into manageable segments so that an individual can hold the pen on one section and not create any confusion with regard to another section. Will follow up on that early next week.
have a good weekend.

Rona

John Hannon

Rona, There will likely be various editin...

11/13/2009 04:09:57 PM

From: John Hannon/DC/USEPA/US
To: Rona Birnbaum/DC/USEPA/US@EPA
Cc: Ben DeAngelo/DC/USEPA/US@EPA, Carol Holmes/DC/USEPA/US@EPA, Dina Kruger/DC/USEPA/US@EPA, Jason Samenow/DC/USEPA/US@EPA
Date: 11/13/2009 04:09 PM
Subject: Re: additional comment from Hunton and Williams

Rona,

There will likely be various editing throughout the preamble as we move to the final. E.g., I will be updating the response on section II to add a reference to this, and there will be revisions base don interagency, etc. etc. Is there a specific version we should work from? For example, should we be working from a document that is the entire preamble, or will the document be broken into 5 separate working documents, one for each section? Just let me know what the plans are. Thanks.

John Hannon
Office of General Counsel
U.S. Environmental Protection Agency
1200 Pennsylvania Ave. NW (MC 2344A)
Washington, D.C. 20460
Phone (202) 564-5563
Fax (202) 564-5603

Rona Birnbaum

FYI. OMB was cc'd on this. ----- Forw...

11/13/2009 03:10:43 PM

From: Rona Birnbaum/DC/USEPA/US
To: Dina Kruger/DC/USEPA/US@EPA, Carol Holmes/DC/USEPA/US@EPA, John Hannon/DC/USEPA/US@EPA
Cc: Ben DeAngelo/DC/USEPA/US@EPA, Jason Samenow/DC/USEPA/US@EPA
Date: 11/13/2009 03:10 PM
Subject: additional comment from Hunton and Williams

FYI. OMB was cc'd on this.

----- Forwarded by Rona Birnbaum/DC/USEPA/US on 11/13/2009 03:07 PM -----

----- Forwarded by Jeremy Martinich/DC/USEPA/US on 11/13/2009 02:44 PM -----

EPA-EF-002779

From: "Wood, Allison" <awood@hunton.com>
To: Jeremy Martinich/DC/USEPA/US@EPA, Group A-AND-R-DOCKET@EPA
Cc: (b)(6), (b)(6)
Date: 11/13/2009 02:35 PM
Subject: Supplemental Comments for Docket No. EPA-HQ-OAR-2009-0171

Dear Mr. Martinich,

Attached please find supplemental comments of the Utility Air Regulatory Group on EPA's Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act. Please contact me if you have any questions regarding these comments.

Sincerely,

Allison D. Wood, Esq.
Counsel to the Utility Air Regulatory Group

<<Final Additional Supplemental Comments on Proposed Endangerment Finding.pdf>> [attachment "Final Additional Supplemental Comments on Proposed Endangerment Finding.pdf" deleted by John Hannon/DC/USEPA/US]

EPA-1674

Marcus
Sarofim/DC/USEPA/US
11/13/2009 05:13 PM

To Rona Birnbaum
cc
bcc
Subject volume 11

Hi Rona,

Lesley said you wanted Volume 11 by COB: here it is. there are a number of places where I think (b)(5) Deliberative

[REDACTED]

(b)(5) Deliberative

RTC draft Volume 11 Cause or Contribute 111309.doc

-Marcus

Marcus C. Sarofim, PhD
phone: 202-343-9993
fax: 202-343-2202
1310 L Street 256C
AAAS Science & Technology Policy Fellow
with the EPA Climate Division

EPA-EF-002781

EPA-1675

Jeremy Martinich
04/01/2010 01:30 PM

To
cc
bcc

Subject UPGLOAD
G:\CCD\CSIB\Martinich\Endangerment\Endangerment\Com
ment Sections\Final versions\Volumes\Old versions\RTC
draft Volume 7 Water, Coastal, Eco 11-13-09.doc

(b)(5) Deliberative

- RTC draft Volume 7 Water, Coastal, Eco 11-13-09.doc

EPA-EF-002782

EPA-1676

Lesley
Jantarasami/DC/USEPA/US
11/13/2009 05:17 PM

To William Perkins
cc
bcc

Subject Re: Where should these excerpts go?

Hmm, [REDACTED] (b)(5) Deliberative
[REDACTED] Let's wait to make a final decision until next week, maybe get some input from Ben when he gets back.

William Perkins Lesley, As discussed. Thanks. 11/13/2009 04:53:06 PM

From: William Perkins/DC/USEPA/US
To: Lesley Jantarasami/DC/USEPA/US@EPA
Date: 11/13/2009 04:53 PM
Subject: Where should these excerpts go?

Lesley,

As discussed. Thanks.

Cheers,

Bill

[attachment "9_3_Adherence to the Data Quality Act to LJ.doc" deleted by Lesley Jantarasami/DC/USEPA/US] [attachment "9_2_1_Use of non-EPA assessments to LJ.doc" deleted by Lesley Jantarasami/DC/USEPA/US]

Bill Perkins
Climate Change Adaptation Analyst
Climate Science and Impacts Branch
Climate Change Division
U.S. Environmental Protection Agency
perkins.william@epa.gov
(O) 202.343.9460
(F) 202.343.2202
(C) [REDACTED] (b)(6)

EPA-EF-002783

EPA-1677

Jeremy
Martinich/DC/USEPA/US
11/13/2009 05:18 PM

To David Chalmers
cc
bcc
Subject Another addition to 4.4 or 4.5

Lets talk about this one on Monday. (b)(5) Deliberative

Comment:
(b)(5) Deliberative

Response:
(b)(5) Deliberative

(b)(5) Deliberative

Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

EPA-1678

Marcus Sarofim

04/01/2010 08:01 PM

To

cc

bcc

Subject UPGRADE C:\Documents and Settings\msarofim\My Documents\WorkFolder\Tsd_Anpr\ResponseToComments\Volumes\RTC draft Volume 2 Validity of Data.RB comments.110609.mcs.doc

(b)(5) Deliberative

- RTC draft Volume 2 Validity of Data.RB comments.110609.mcs.doc

EPA-EF-002785

EPA-1679

Lesley Jantarasami
04/01/2010 03:52 PM

To
cc
bcc

Subject UPGRADE C:\Documents and Settings\ljantara\My Documents\Endangerment\02_Comments and Responses\Volume 12\Prelim Comment Summaries_Vol12 111209.doc

(b)(5) Deliberative

[REDACTED] - Prelim Comment Summaries_Vol12 111209.doc

EPA-EF-002786

EPA-1680

Doug Grano

03/24/2010 11:34 AM

To

cc

bcc

Subject UPGRADE C:\Documents and Settings\dgrano\My Documents\WP\Climate\Rulemaking\Endangerment\Comment-response\RTC draft Volume 5 HH and AQ 110909 pdd.doc

(b)(5) Deliberative

[REDACTED] - RTC draft Volume 5 HH and AQ 110909 pdd.doc

EPA-EF-002787

EPA-1681

Jason
Samenow/DC/USEPA/US
11/13/2009 05:57 PM

To Rona Birnbaum
cc Ben DeAngelo, David Chalmers, Marcus Sarofim, Michael
Kolian
bcc
Subject Re: important new study accepted: "The relative increase of
record high maximum temperatures compared to record low
minimum temperatures in the U.S."

Here it is--



2009GL040736.pdf

Rona Birnbaum Yes! I heard about this on NPR this (b)(5) Deliberative 11/13/2009 03:14:52 PM

From: Rona Birnbaum/DC/USEPA/US
To: Jason Samenow/DC/USEPA/US@EPA
Cc: Ben DeAngelo/DC/USEPA/US@EPA, David Chalmers/DC/USEPA/US@EPA, Marcus
Sarofim/DC/USEPA/US@EPA
Date: 11/13/2009 03:14 PM
Subject: Re: important new study accepted: "The relative increase of record high maximum temperatures
compared to record low minimum temperatures in the U.S."

Yes! I heard about this on NPR this (b)(5) Deliberative

Jason Samenow (b)(5) Deliberative 11/13/2009 03:00:13 PM

From: Jason Samenow/DC/USEPA/US
To: Rona Birnbaum/DC/USEPA/US@EPA, Marcus Sarofim/DC/USEPA/US@EPA, Ben
DeAngelo/DC/USEPA/US@EPA, David Chalmers/DC/USEPA/US@EPA
Date: 11/13/2009 03:00 PM
Subject: important new study accepted: "The relative increase of record high maximum temperatures
compared to record low minimum temperatures in the U.S."

(b)(5) Deliberative

<http://www.ucar.edu/news/releases/2009/maxmin.jsp>

The number of record high temperatures in the U.S. over the last nine years was twice the number of record lows, a new study says, and that ratio is expected to keep rising.

According to weather station data, the U.S. experienced 291,237 record high maximum temperatures and 142,420 record low minimum temperatures between January 2000 and September 2009. Looking back, the country had only slightly more record highs than lows in the 1950s and slightly more lows than highs in the 1960s and 1970s, researchers report in a paper

EPA-EF-002788

accepted for publication in *Geophysical Research Letters* .

The trend is driven more by warming nighttime temperatures than daytime maximum temperatures, says lead author Gerald Meehl of the National Center for Atmospheric Research. The air may be holding more moisture, he says, thus trapping more heat and resulting in fewer record lows at night. His team predicts that, under one global warming scenario, the U.S. could see 50 times more record highs than lows by 2100.

Meehl, G., Tebaldi, C., Walton, G., Easterling, D., & McDaniel, L. (2009). The relative increase of record high maximum temperatures compared to record low minimum temperatures in the U.S. *Geophysical Research Letters* DOI: 10.1029/2009GL040736



2 Relative increase of record high maximum temperatures compared 3 to record low minimum temperatures in the U.S.

4 Gerald A. Meehl,¹ Claudia Tebaldi,² Guy Walton,³ David Easterling,⁴ and Larry McDaniel¹

5 Received 28 August 2009; revised 13 October 2009; accepted 20 October 2009; published XX Month 2009.

7 [1] The current observed value of the ratio of daily record
8 high maximum temperatures to record low minimum
9 temperatures averaged across the U.S. is about two to one.
10 This is because records that were declining uniformly earlier
11 in the 20th century following a decay proportional to $1/n$ (n
12 being the number of years since the beginning of record
13 keeping) have been declining less slowly for record highs
14 than record lows since the late 1970s. Model simulations of
15 U.S. 20th century climate show a greater ratio of about four to
16 one due to more uniform warming across the U.S. than in
17 observations. Following an A1B emission scenario for the
18 21st century, the U.S. ratio of record high maximum to record
19 low minimum temperatures is projected to continue to
20 increase, with ratios of about 20 to 1 by mid-century, and
21 roughly 50 to 1 by the end of the century. Citation: Meehl,
22 G. A., C. Tebaldi, G. Walton, D. Easterling, and L. McDaniel
23 (2009), Relative increase of record high maximum temperatures
24 compared to record low minimum temperatures in the U.S.,
25 *Geophys. Res. Lett.*, 36, LXXXXX, doi:10.1029/2009GL040736.

27 1. Introduction

28 [2] As of the end of September, 2009, inspection of the
29 National Climatic Data Center web site that archives observed
30 annual record high maximum and record low minimum daily
31 temperatures from weather stations across the U.S. ([http://
32 www.ncdc.noaa.gov/oa/climate/research/records/](http://www.ncdc.noaa.gov/oa/climate/research/records/)) showed
33 that since January 1, 2000, there had been 291,237 record
34 high maximum daily temperatures set, and 142,420 record
35 low minimum daily temperatures, or a ratio of roughly two
36 to one. Since January 1, 2009 (also compiled to the end of
37 September, 2009), there had been 11,711 record highs and
38 7,449 record lows, with a ratio of just less than two to one.
39 Though this simple summation does not take into account
40 station record length or any autocorrelation effects, it is not
41 unexpected that there would be more record high maximum
42 temperatures being set than record low minima simply because
43 the annual U.S. average surface temperatures have been in-
44 creasing since the 1970s [Karl *et al.*, 2006; Trenberth *et al.*,
45 2007; Hegerl *et al.*, 2007]. A simple shift of the statistical
46 distribution of temperatures at a given station would dictate
47 that there would be more record high temperatures than record
48 lows [see Solomon *et al.*, 2007, Figure 1, Box TS.5]. How-
49 ever, we would not expect a two to one ratio of record highs to
50 record lows to persist for a long time in a steadily warming

climate, and we attempt in this paper to put this particular 51
value of the ratio in context, as we look at observations over 52
the last 50-plus years and, in particular, to model simulations 53
that allow us to study the effects of future warming. 54

[3] We use a subset of quality controlled NCDC US COOP 55
network station observations of daily maximum and minimum 56
temperatures, retaining only those stations with less than 10% 57
missing data (in fact the median number of missing records 58
over all stations is 2.6%, the mean number is 1.2%). All sta- 59
tions record span the same period, from 1950 to 2006, to avoid 60
any effect that would be introduced by a mix of shorter and 61
longer records. The missing data are filled in by simple aver- 62
ages from neighboring days with reported values when there 63
are no more than two consecutive days missing, or otherwise 64
by interpolating values at the closest surrounding stations. 65
Thus we do not expect extreme values to be introduced by this 66
essentially smoothing procedure. In addition our results are 67
always presented as totals over the entire continental U.S. 68
region or its East and West portions, with hundreds of stations 69
summed up. It is likely that record low minima for some 70
stations are somewhat skewed to a cool bias (e.g., more record 71
lows than should have occurred) due to changes of observing 72
time (see discussion by Easterling [2002] and discussion in 73
auxiliary material), though this effect is considered to be minor 74
and should not qualitatively change the results.⁵ Additionally, 75
at some stations two types of thermometers were used to record 76
maximum and minimum temperatures. The switch to the Max/ 77
Min Temperature System (MMTS) in the 1980s at about half 78
the stations means that thermistor measurements are made 79
for maximum and minimum. This has been documented by 80
Quayle *et al.* [1991], and the effect is also considered to be 81
small. To address this issue, an analysis of records within 82
temperature minima and within temperature maxima shows 83
that the record minimum temperatures are providing most 84
of the signal of the increasing ratio of record highs to record 85
lows (see further discussion in auxiliary material). 86

[4] The model data are from the NCAR Community Climate 87
System Model version 3 (CCSM3) that was run for simulations 88
of 20th century and 21st century climate [Meehl *et al.*, 2006], 89
where for 20th century, both natural (volcanoes and solar) 90
and anthropogenic (GHGs, ozone and direct effect of sulfate 91
aerosols) forcings are included. In the model, warming over 92
the U.S. at the end of the 20th century is somewhat greater 93
than observed [Meehl *et al.*, 2006], and mostly attributed to 94
human activity [Meehl *et al.*, 2007; Hegerl *et al.*, 2007]. 95

2. Twentieth Century 96

[5] Probability theory states that, in the case of an inde- 97
pendent sequence of random variables identically distributed, 98

¹National Center for Atmospheric Research, Boulder, Colorado, USA.

²Climate Central, Princeton, New Jersey, USA.

³The Weather Channel, Atlanta, Georgia, USA.

⁴National Climate Data Center, Asheville, North Carolina, USA.

LXXXXX

MEEHL ET AL.: CHANGES IN TEMPERATURE RECORDS

LXXXXX

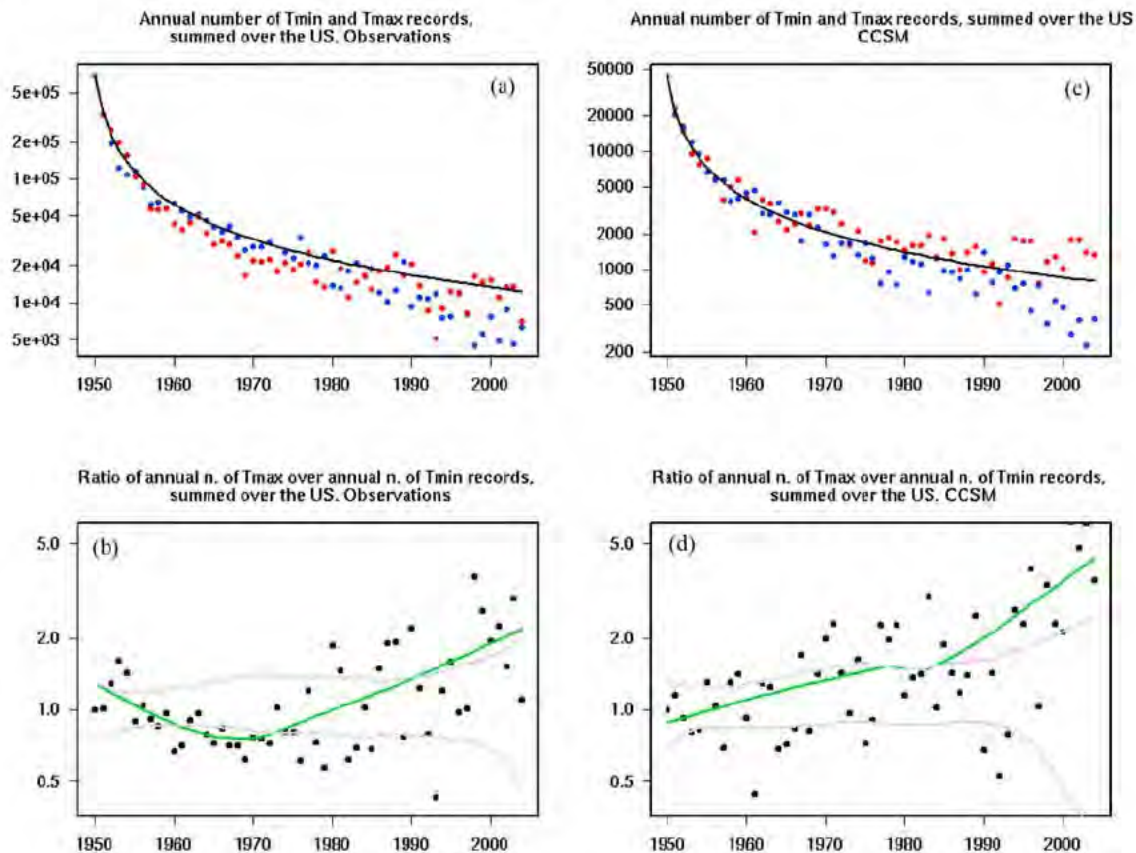


Figure 1. Comparison of observed and modeled statistics of records, averaged over the entire U.S. region, (a) annual numbers of record high maximum temperatures (red dots) and record low minimum temperatures (blue dots) compared to the theoretical values (black line) under stationary conditions, following a decay of $1/n$ where n is the number of years from the start of record counting; (b) observations of the ratio of record highs to record lows each year (dots), solid line is a smoothed curve fit, and the envelope of the 95% CI from the bootstrap is marked by grey lines; (c) same as Figure 1a except from a single simulation of the 20th century from the model; (d) same as Figure 1b except for the model. Note that the heteroscedasticity of the sample values (increased variance over time) is to be expected since the values are obtained as ratios of increasingly smaller numbers (the overall number of annual records decreases with the length of the record). Difference of a few units in large numerators/denominators does not cause the same variability in the ratio as difference of a few units in ratios of small numbers.

99 the number of records should decrease as $1/n$, where n is the
 100 number of realizations of the independent variable accumu-
 101 lating as we observe it. In our case n is time, in particular it is
 102 the year for which we observe the value of a calendar day
 103 maximum and minimum temperature and we compare it to
 104 the standing record highs and lows. As years (and records)
 105 accumulate it becomes increasingly difficult for a stationary
 106 process to break a record, asymptotically as difficult as an
 107 event with probability $1/n$. [e.g., Arnold et al., 1998]. Thus,
 108 the number of years a station has been operating is an
 109 important aspect of accounting for numbers of records.
 110 Analysis of observed station data for the U.S. has shown that
 111 starting a $1/n$ calculation by taking all stations available in
 112 mid-20th century produces a credible accounting of records
 113 with distinct seasonal and geographical features (R. W.
 114 Portmann et al., Seasonal and geographic aspects of changes
 115 in record temperatures, manuscript in preparation, 2009).
 116 They also show that two factors influence changes in the
 117 numbers of records that deviate from the theoretical $1/n$
 118 relationship, involving 1) different natural variability trans-
 119 lating into a wider or narrower variance of the climatological
 120 distribution of temperature and 2) changes in temperature

trends. It has been shown that regional changes of temper- 121
 atures and precipitation are related to regional changes of 122
 extreme temperatures in some areas and seasons [Portmann 123
 et al., 2009]. 124

[6] Figure 1a shows the decay of observed annual record 125
 high maximum temperatures (red dots) compared to annual 126
 record low minimum temperatures (blue dots) averaged over 127
 the U.S. since 1950. The smooth line is the theoretical or 128
 expected rate of decay corresponding to $1/n$ times the number 129
 of stations over which the records are summed. The expected 130
 rate of decay is a good explanation for the time series of 131
 annual number of records (both highs and lows) up to about 132
 1980, whereas after 1980 there are clearly more red dots 133
 falling above the line and more blue dots below the line, 134
 making the theoretical behavior under a stationary process a 135
 poorer fit than in the first part of the record. In particular the 136
 position of the dots relative to the theoretical line seems to 137
 suggest that the number of observed record lows has been 138
 declining more rapidly than expected, while record highs stay 139
 closer to their expected behavior even in the later part of 140
 the period. The ratios of record high maxima to record low 141
 minima are shown in Figure 1b, with a non-linear curve fit to 142

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MEEHL ET AL.: CHANGES IN TEMPERATURE RECORDS

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143 the values. The expected ratio in a stationary climate would
 144 be 1.0, but it can be seen that in the 1950s this ratio was
 145 somewhat above 1.0, it dropped to a bit below 1.0 in the
 146 1960s and 1970s, and then has been rising ever since such
 147 that in the most recent decade the ratio is roughly 2 to 1 as
 148 noted earlier. The time evolution of this ratio reflects the rate
 149 of change of U.S. average temperatures, with greater rates of
 150 warming in the 1950s, almost no warming in the late 1950s
 151 and 1960s, and warming since the 1970s [Karl *et al.*, 2006;
 152 Trenberth *et al.*, 2007]. From the results in Figure 1a we can
 153 also infer that the larger than expected values of the ratio
 154 seem to be due to less than expected record lows rather than
 155 more than expected record highs. It is also seen that the recent
 156 period when the ratio has been 2 to 1 is just the latest value
 157 characteristic of a warming climate, while the ratio was less
 158 than that in the previous several decades. In order to charac-
 159 terize the significance of these “larger values” of the ratio
 160 (i.e., values greater than 1.0), we perform a bootstrap analysis
 161 by resampling the sequence of 55 years in the observed
 162 records using blocks of three consecutive years to account for
 163 the possible presence of time correlation. We produce one
 164 hundred new time sequences and we apply them uniformly
 165 across the set of stations and for maximum and minimum
 166 temperature. We repeat the computation of records for the
 167 new artificial sequences of observations, sum the annual
 168 numbers of records over space and recompute the 55 values
 169 of the ratio for each of the 100 bootstrap samples.

170 [7] By applying the smooth fit to each, we determine an
 171 envelope of possible results where the presence of a trend in
 172 the measurement of minimum and maximum temperature
 173 would be eliminated by the random resampling of (blocks
 174 of) years. This envelope of results is shown as grey lines,
 175 against which the observed is plotted as a thick black line
 176 (Figure S1). Only one other trajectory of the ratio is higher
 177 than the observed after the late-1990s, out of the 100 boot-
 178 strapped trajectories, indicating that the large recent values of
 179 the ratio as observed are statistically significant.

180 [8] To compare to a single realization of 20th century
 181 climate from the CCSM, Figure 1d shows that the actual
 182 measurements diverge from the theoretical $1/n$ line somewhat
 183 earlier in the century for record high maxima and record low
 184 minima, and in a more symmetric fashion when comparing
 185 lows and highs. Additionally, the ratio for the most recent
 186 decade (Figure 1d) has climbed to about 4 to 1. The greater
 187 ratio compared to observations suggests a larger base state
 188 warming in the model as noted earlier, which also manifests
 189 itself in a more even change between the behavior of min-
 190 imum and maximum temperatures. Similar bootstrap results
 191 to those for the observations discussed above confirm the
 192 significance of the model simulated large values of the ratio.
 193 That is, generating time series of another 100 realizations of
 194 simulated 20th century climate indicates that the larger
 195 warming (compared to the observations) and corresponding
 196 larger ratio is significant (Figure S2). Notably the results from
 197 CCSM do not show decadal modulation of the ratio but rather
 198 indicate a steady increase of the ratio over the course of the
 199 historical period.

200 [9] Part of the reason for this greater ratio in the model
 201 compared to observations lies in the spatial distribution of
 202 annual mean temperature increase, with greater observed
 203 warming in the western U.S. compared to the eastern U.S.
 204 [Trenberth *et al.*, 2007]. This is reflected in the eastern vs.

western U.S. record temperatures in Figure 2, with less of a 205
 divergence from the expected $1/n$ decay for record highs 206
 versus record lows in the east (all stations east of 100W, 207
 Figure 2) compared to the west (Figures 2a and 2b), with a 208
 ratio for the eastern U.S. that is somewhat less than 2 to 1 209
 where warming has been less, compared to the west where the 210
 ratio is over 3 to 1 associated with greater base state warming. 211
 By applying the spatial disaggregation to the bootstrapped 212
 results described above, we can test the significance of the 213
 large values of these two ratios as well (Figure S3). The 214
 values in the Eastern part of the United States are signifi- 215
 cantly different from what should be expected in the absence 216
 of a trend only at a 10% or greater level, while in the West 217
 the significance of the results is such that none of the boot- 218
 strapped sequence of ratio values lies above the observed. 219

[10] The model shows some indications of greater average 220
 warming in the western U.S. compared to the east [e.g., 221
 Meehl *et al.*, 2006] as evidenced by a simulation of greater 222
 decreases of frost days (nighttime minimum temperatures 223
 below freezing [Meehl *et al.*, 2004]) and greater heat wave 224
 intensity [Meehl and Tebaldi, 2004; Tebaldi *et al.*, 2006] in 225
 the west compared to the east. In terms of records, though 226
 not as pronounced as in the observations, the model shows 227
 a divergence from the expected $1/n$ relationships between 228
 record highs and record lows for the two parts of the country 229
 (Figures 2c and 2d), with a ratio of less than 4 to 1 for the 230
 east compared to a ratio of over 5 to 1 for the west. Therefore, 231
 the model is capturing some elements of the greater ratio of 232
 record highs to record lows in the west compared to the east 233
 as seen in the observations, but with ratios that are higher 234
 than observed, and a more symmetric change in the numbers 235
 of record lows and record highs as they deviate from the 236
 expected rate. Bootstrap-based tests have confirmed the 237
 significance of these large values of the ratios similar to what 238
 was found for observations (Figure S4). 239

3. Twenty-First Century 240

[11] Earlier we posed the question of whether the recently 241
 observed 2 to 1 ratio of record high maximum temperatures 242
 to record low minimum temperatures is somehow a unique 243
 characteristic of a warming climate. To address that ques- 244
 tion we plot this ratio from the model for the 20th century and 245
 21st centuries (the latter following the mid-range A1B 246
 scenario [Meehl *et al.*, 2006]) in Figure 3. It can be seen that 247
 as the climate continues to warm during the 21st century, 248
 the number of record highs fall in larger and larger measure 249
 above the theoretical expectation line as compared to the 250
 number of record lows falling below the same line (Figure 3a). 251
 This is reflected in the ongoing increase in the ratio 252
 (Figure 3b) such that by mid-century the ratio is about 20 253
 to 1, and by late century it is around 50 to 1. Presumably at 254
 some point after 2100 there would come a time when there 255
 would be no more record low minima being set, and only 256
 record high maxima would be recorded, though the model 257
 indicates that this has not yet occurred in the A1B scenario 258
 over the U.S. by 2100. We conducted a similar analysis 259
 on simulations from CCSM under SRES B1 (lower forcing 260
 than A1B) and A1FI (higher forcing than A1B). For the low 261
 scenario B1 the values of the ratio are about 8 to one by mid- 262
 century, but are in the range of hundreds to one for scenario 263
 A1FI by mid-century, when computed on the same set of grid 264

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MEEHL ET AL.: CHANGES IN TEMPERATURE RECORDS

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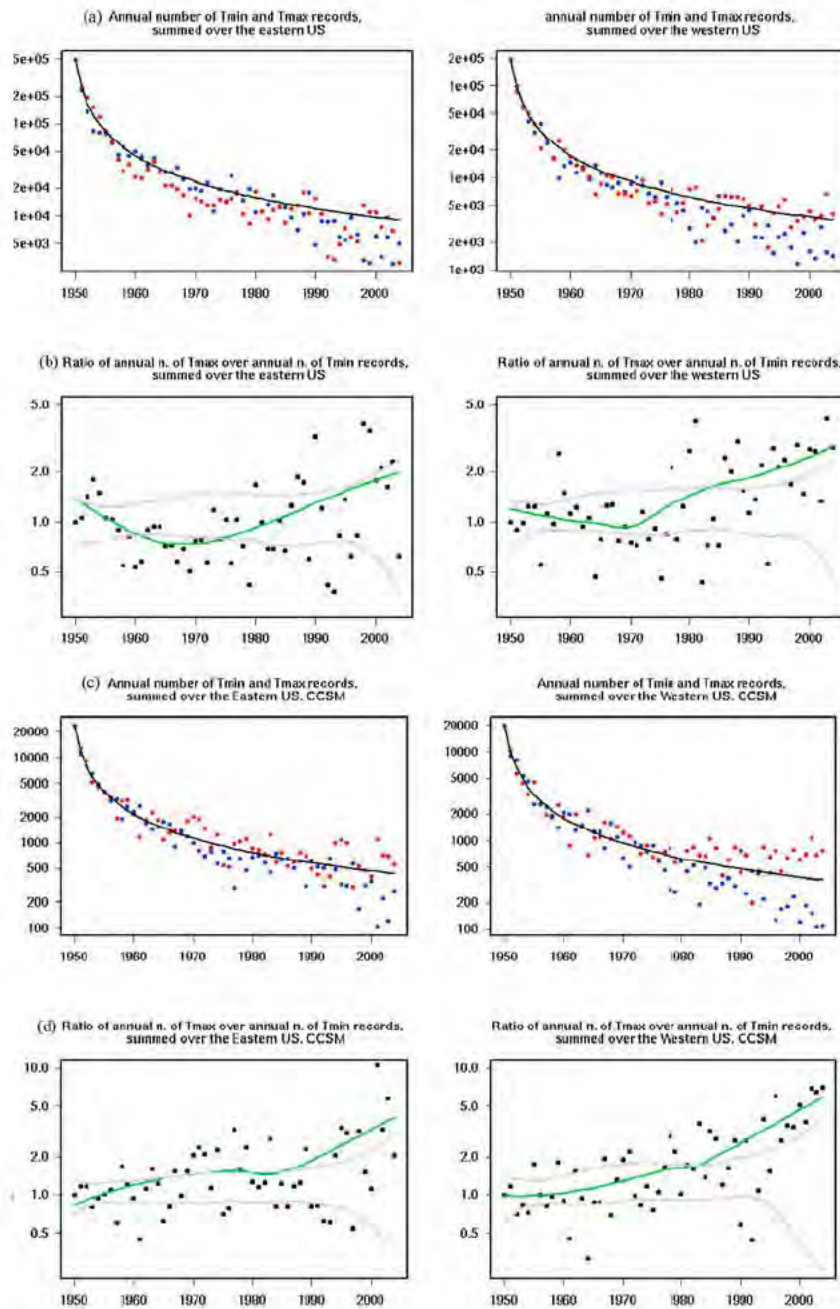


Figure 2. As Figure 1, but for observations and splitting the stations between Western and Eastern regions of the U.S., along the 100W meridian. (a) Annual numbers of record highs (red dots) and lows (blue dots) and expected behavior (black line). (b) Annual values of the ratio of number of record highs to lows and a smooth curve fit, plus the 95% CI computed by bootstrap. (c) Same as Figure 2a but for the model and (d) as Figure 2b but for the model.

265 points covering the continental U.S. (on the order of 80
 266 gridpoints). These specific values for the ratios over the 21st
 267 century are very likely model-dependent, and thus are only
 268 indicative of how these ratios could evolve. Rather they are
 269 suggestive of the order of magnitude of the changes of the
 270 ratios in a future warming climate.

271 4. Conclusions

272 [12] Analysis of observed annual U.S. record high maxi-
 273 mum compared to record low minimum daily temperatures
 274 shows that the recent values of the ratio of about 2 to 1 are the

current value of this ratio that has been increasing with mean 275
 annual mean temperature over the U.S. since the late 1970s. 276
 B. C. Trewin and H. Vermont (Changes in the frequency of 277
 record temperatures in Australia, 1957–2007, submitted to 278
Australian Meteorological and Oceanographic Journal, 279
 2009) have also documented a similar recent ratio of about 280
 2 to 1 over Australia for monthly temperature records. As 281
 noted in other studies (Portmann et al., manuscript in prep- 282
 aration, 2009), there are geographic and seasonal character- 283
 istics to these records, and it is shown that the greater values 284
 of the ratio for the western U.S. (where mean warming has 285
 been greater) compared to eastern U.S. are simulated with 286

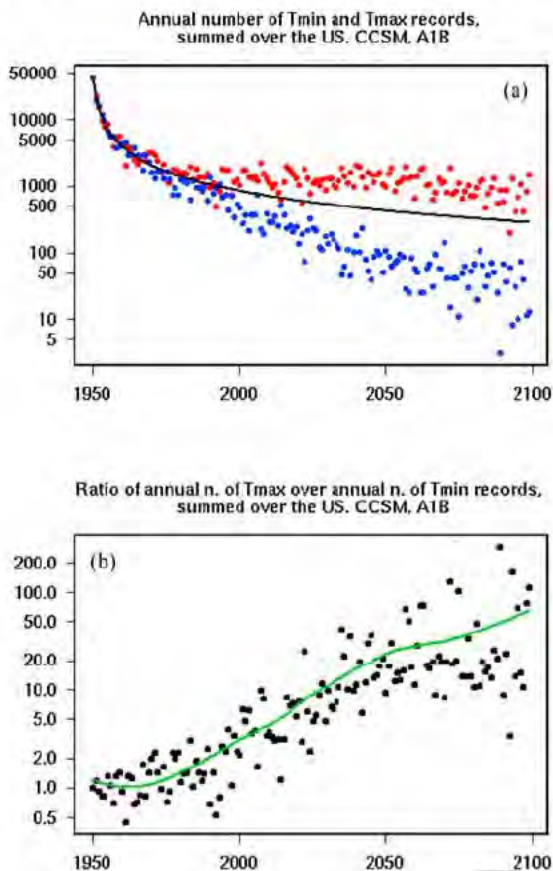


Figure 3. (a) Annual numbers of record highs and lows and (b) their ratio computed from the model, using 20th century and SRES A1B 21st century experiments. Plots are similar to Figures 1c and 1d but extend the time horizon to the end of the 21st Century.

287 reduced contrast in the model, with greater values of the ratio
 288 simulated in the model, likely indicative of the greater mean
 289 warming in the model over the U.S. compared to observa-
 290 tions by the early 21st century. Additionally, while observa-
 291 tions seem to indicate that record lows have been declining in
 292 larger measure than record highs have been increasing, the
 293 model simulates a more symmetric behavior between mini-
 294 mum and maximum record temperatures. For later in the 21st
 295 century, the model indicates that as warming continues
 296 (following the A1B scenario), the ratio of record highs to
 297 record lows will continue to increase, with values of about
 298 20 to 1 by mid-century, and roughly 50 to 1 by late century.
 299 [13] Two factors contribute to this increase as noted by
 300 Portman et al. (manuscript in preparation, 2009): 1) increases
 301 in temperature variance in a future warmer climate (as noted
 302 in the model by Meehl and Tebaldi [2004]), and 2) a future
 303 increasing trend of temperatures over the U.S. (model pro-
 304 jections given by Meehl et al. [2006]). Since the A1B mid-
 305 range scenario is used, a lower forcing scenario (e.g., B1)
 306 produces reduced values of the ratio in the 21st century, and a
 307 higher forcing scenario (e.g., A2) produces greater values.
 308 The model cannot represent all aspects of unforced variability
 309 that may have influenced the observed changes of record
 310 temperatures to date, and the model over-estimates warming
 311 over the U.S. in the 20th century. The future projections may
 312 also reflect this tendency and somewhat over-estimate the

future increase in the ratio. Under any future scenario that
 involves increases of anthropogenic greenhouse gases and
 corresponding increases in temperature, the ratio of record
 high maximum to record low minimum temperatures will
 continue to increase above the current value.

[14] **Acknowledgments.** The authors acknowledge insightful discus-
 sions with Bob Portmann, Susan Solomon, Bradley Efron, and Tony
 Broccoli during the preparation of this study, and thank Gabi Hegerl and
 one anonymous reviewer for constructive comments that helped improve
 the text. The authors are also grateful to Claude N. Williams for providing
 an initial dataset of quality controlled stations, whose analysis originated
 the more comprehensive study of this paper. Portions of this study were
 supported by the Office of Science (BER), U.S. Department of Energy,
 Cooperative Agreement DE-FC02-97ER62402, and the National Science
 Foundation. The National Center for Atmospheric Research is sponsored by
 the National Science Foundation.

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 pp. 235–336, Cambridge Univ. Press, Cambridge, U. K.
 D. Easterling, National Climate Data Center, 151 Patton Ave., Asheville, NC 28801, USA.
 N. McDaniel and G. A. Meehl, National Center for Atmospheric Research, P.O. Box 3000, 1850 Table Mesa Dr., Boulder, CO 80307, USA.
 C. Tebaldi, Climate Central, One Palmer Sq., Ste. 330, Princeton, NJ 08542, USA.
 G. Walton, The Weather Channel, 310 Interstate Pkwy N., Atlanta, GA 30339, USA.

EPA-1682

Jason
Samenow/DC/USEPA/US
11/13/2009 06:00 PM

To Rona Birnbaum
cc
bcc

Subject Fw: half of Vol 2 reviewed

Marcus has already worked through your comments, FYI. Not sure if you want to merge this with what you send to Dina or just send her the earlier version....

Jason

----- Forwarded by Jason Samenow/DC/USEPA/US on 11/13/2009 05:58 PM -----

From: Marcus Sarofim/DC/USEPA/US
To: Jason Samenow/DC/USEPA/US@EPA
Date: 11/13/2009 04:42 PM
Subject: Re: Fw: half of Vol 2 reviewed

Done. (b)(5) Deliberative

(b)(5) Deliberative

RTC draft Volume 2 Validity of Data.RB comments.110609.mcs.doc

Marcus C. Sarofim, PhD
phone: 202-343-9993
fax: 202-343-2202
1310 L Street 256C
AAAS Science & Technology Policy Fellow
with the EPA Climate Division

Jason Samenow | marcus-- can you please address rona... | 11/13/2009 12:25:10 PM

From: Jason Samenow/DC/USEPA/US
To: Marcus Sarofim/DC/USEPA/US@EPA
Date: 11/13/2009 12:25 PM
Subject: Fw: half of Vol 2 reviewed

marcus-- can you please address rona's edits (b)(5) Deliberative in tracked changes, and then send back to me?

thanks,
jason

----- Forwarded by Jason Samenow/DC/USEPA/US on 11/13/2009 12:24 PM -----

From: Rona Birnbaum/DC/USEPA/US
To: Jason Samenow/DC/USEPA/US@EPA
Cc: Lesley Jantarasami/DC/USEPA/US@EPA
Date: 11/13/2009 11:42 AM
Subject: half of Vol 2 reviewed

EPA-EF-002795

still working on 2nd half

[attachment "RTC draft Volume 2 Validity of Data.RB comments.110609.doc" deleted by Marcus Sarofim/DC/USEPA/US]

EPA-1683

**Jeremy
Martinich/DC/USEPA/US**
11/13/2009 06:10 PM

To Rona Birnbaum
cc
bcc
Subject Re: Fw: Volume 7 (Water)

Yes, will do.

Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

Rona Birnbaum | jeremy, there will have to be much that... | 11/13/2009 04:02:29 PM

From: Rona Birnbaum/DC/USEPA/US
To: Jeremy Martinich/DC/USEPA/US@EPA
Cc: Lesley Jantarasami/DC/USEPA/US@EPA
Date: 11/13/2009 04:02 PM
Subject: Fw: Volume 7 (Water)

jeremy, there will have to be much that the team learns from these Volumes that Dina has spent so much time on. Would be great if you can help me on Monday morning deciphering what are the most important things for staff to know here.
thanks!!

----- Forwarded by Rona Birnbaum/DC/USEPA/US on 11/13/2009 04:02 PM -----

From: Dina Kruger/DC/USEPA/US
To: Rona Birnbaum/DC/USEPA/US@EPA, Suzanne Kocchi/DC/USEPA/US@EPA
Date: 11/13/2009 03:26 PM
Subject: Volume 7 (Water)

Here's this one - clean and track changes. (b)(5) Deliberative
[Redacted]

Dina

[attachment "RTC_draft_Volume_7_10609 + DINA.doc" deleted by Rona Birnbaum/DC/USEPA/US]
[attachment "Notes & Model responses.doc" deleted by Rona Birnbaum/DC/USEPA/US] [attachment
"RTC_draft_Volume_7_10609 + DINA+clean.doc" deleted by Rona Birnbaum/DC/USEPA/US]
[attachment "STOCK LANGUAGE.doc" deleted by Rona Birnbaum/DC/USEPA/US]

Dina Kruger
Director, Climate Change Division
USEPA

202-343-9039 (phone)
202-343-2290 (fax)

EPA-EF-002797

EPA-1684

Marcus Sarofim

04/01/2010 08:01 PM

To

cc

bcc

Subject UPLOAD C:\Documents and Settings\msarofim\My Documents\WorkFolder\Tsd_Anpr\ResponseToComments\Volumes\RTC draft Volume 11 Cause or Contribute 111309.doc

(b)(5) Deliberative

- RTC draft Volume 11 Cause or Contribute 111309.doc

EPA-EF-002798

EPA-1685

**Rona
Birbaum/DC/USEPA/US**
11/15/2009 04:29 PM

To Michael Kolian, Jason Samenow
cc Ben DeAngelo, Lesley Jantarasami
bcc

Subject Fw: Volume 5 - part 1

Mike, see significant comments from Dina on second half of this Volume.
We'll discuss Monday morning.

Rona

----- Forwarded by Rona Birbaum/DC/USEPA/US on 11/15/2009 04:23 PM -----

From: Dina Kruger (b)(6)
To: Rona Birbaum/DC/USEPA/US@EPA, Suzanne Kocchi/DC/USEPA/US@EPA
Date: 11/15/2009 04:03 PM
Subject: Volume 5 - part 1

Here are my comments on the Air Quality section -- second half of the document. (b)(5) Deliberative

(b)(6)

Dina

(b)(5) Deliberative

RTC_draft_Volume_5_110609+DINA.doc

EPA-EF-002799

EPA-1686

Rona
Birnbaum/DC/USEPA/US
11/15/2009 05:02 PM

To Lesley Jantarasami
cc Ben DeAngelo
bcc
Subject OGC's text?

hi Lesley, I do not seem to have the text that Carol sent to you [and others?] for Volumes 10 and 11. It
(b)(5) Deliberative

Please forward to Ben and me whatever we received from Carol (I know that folks were looking at it during Thursday's call with Carol.)
thanks, Rona

EPA-EF-002800

EPA-1687

Suzanne
Kocchi/DC/USEPA/US
11/15/2009 07:29 PM

To "Dina Kruger"
cc "Rona Birnbaum"
bcc
Subject Fw: Ag/Forestry RTC

Attached are my comments on Vol 6. I think it might benefit from another revision (assuming it can be done quickly) before Dina reviews especially now that Dina has the stock phrases and model answers.

I apologize for not getting this done sooner - [REDACTED] (b)(6)
[REDACTED] I will
call/email when I know more.

----- Original Message -----
From: Suzanne Kocchi [REDACTED] (b)(6)
Sent: 11/15/2009 07:18 PM EST
To: Suzanne Kocchi
Subject: Ag/Forestry RTC

(b)(5) Deliberative
[REDACTED]

RTC_draft_Volume_6_Ag_and_Forestry_110609_sk.doc

EPA-1688

Suzanne
Kocchi/DC/USEPA/US
11/15/2009 07:30 PM

To "Home"
cc
bcc

Subject Fw: Ben-this one is for you (high priority)

Rona Birnbaum

----- Original Message -----

From: Rona Birnbaum
Sent: 11/15/2009 04:49 PM EST
To: Ben DeAngelo
Cc: Suzanne Kocchi
Subject: Ben-this one is for you (high priority)

hi Ben, welcome back!!!! You and I can talk after our 9:30 but after reviewing a good handful of RTC Volumes and knowing where attention is turning with regard to OGC, I would say that (b)(5) Deliberative

[REDACTED]

like to try to get a new draft Vol 11 to Dina late Monday.

I'm cc'ing Suzie as she may have looked at Vol 11 this weekend as well and may have done some mark up. As I mentioned, (b)(5) Deliberative

(b)(5) Deliberative

RTC draft Volume 11 Cause or Contribute 111309.RB comments.doc

EPA-EF-002802

EPA-1689

Lesley Jantarasami
04/01/2010 03:51 PM

To
cc
bcc

Subject UPGRADE C:\Documents and Settings\ljantara\My Documents\Endangerment\02_Comments and Responses\Vol 6 stuff\RTC_draft_Volume_6_Ag_and_Forestry_110609_sk.doc

(b)(5) Deliberative

- RTC_draft_Volume_6_Ag_and_Forestry_110609_sk.doc

EPA-1690

Ben DeAngelo/DC/USEPA/US

To Rona Birnbaum

11/16/2009 07:34 AM

cc

bcc

Subject Re: Ben-this one is for you (high priority)

Saw my message didn't go thru last night (?). Ok, was expecting to focus on these. (b)(5) Deliberative
[REDACTED], was planning on sending those edits this am.

Benjamin DeAngelo
Sent by EPA Wireless
Rona Birnbaum

----- Original Message -----

From: Rona Birnbaum

Sent: 11/15/2009 04:49 PM EST

To: Ben DeAngelo

Cc: Suzanne Kocchi

Subject: Ben-this one is for you (high priority)

hi Ben, welcome back!!!! You and I can talk after our 9:30 but after reviewing a good handful of RTC
Volumes and knowing where attention is turning with regard to OGC, I would say that (b)(5) Deliberative

[REDACTED]

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I'm cc'ing Suzie as she may have looked at Vol 11 this weekend as well and may have done some mark
up. As I mentioned, (b)(5) Deliberative

[attachment "RTC draft Volume 11 Cause or Contribute 111309.RB comments.doc" deleted by Ben
DeAngelo/DC/USEPA/US]

EPA-EF-002804

EPA-1691

Lesley Jantarasami/DC/USEPA/US To Rona Birnbaum, Ben DeAngelo
11/16/2009 09:00 AM cc
bcc
Subject Re: OGC's text?

Hi Rona and Ben,

Carol just had comment summaries for vols 10-12; they are in the attached document under the old section numbering and headings system (b)(5) Deliberative. I talked to Marcus last Thursday after the call about incorporating Carol's summaries, as well as ensuring consistency with the findings. He said that he had it covered, so I'm not sure what happened.

Lesley

----- Forwarded by Lesley Jantarasami/DC/USEPA/US on 11/16/2009 08:52 AM -----

From: Lesley Jantarasami/DC/USEPA/US
To: William Perkins/DC/USEPA/US@EPA, Michael Kolian/DC/USEPA/US@EPA, Jeremy Martinich/DC/USEPA/US@EPA, David Chalmers/DC/USEPA/US@EPA, Marcus Sarofim/DC/USEPA/US@EPA, Rona Birnbaum/DC/USEPA/US@EPA, Jason Samenow/DC/USEPA/US@EPA
Date: 11/12/2009 09:43 AM
Subject: Fw: 10 am mtg

Hi everyone,

See below from Carol regarding the meeting today. We'll probably walk through her attachment together, so it would be helpful to bring a copy to the meeting.

Also, Rona will be late, so Jason and I are facilitating.

Thanks!

Lesley

----- Forwarded by Lesley Jantarasami/DC/USEPA/US on 11/12/2009 09:39 AM -----

From: Carol Holmes/DC/USEPA/US
To: Lesley Jantarasami/DC/USEPA/US
Date: 11/12/2009 09:34 AM
Subject: 10 am mtg

Hi Lesley -- obviously I won't be coming to 1310 L street b/c I am working from home (fewer distractions overall). But hopefully we can still walk through comments together. Here is the latest set of my summaries -- the ones highlighted in blue are in the preamble in some version already. It hasn't changed much in recent weeks other than adding blue highlights. There are a few additional comments folks are working on separately, but let's focus on these first.

I suggest that while we'll want to make sure we flesh the responses in the preamble as necessary in the RTC, we start focusing on the comment summaries without any response now. At the mtg we can discuss how to get these into the master RTCs (to the extent they aren't already) and then work from those. THANKS

EPA-EF-002805

(b)(5) Deliberative

Carol's sections of legal RTC 11 12 09.doc

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Carol S. Holmes
Office of General Counsel
U.S. Environmental Protection Agency
1200 Pennsylvania Ave, NW (MC 2344A)
Washington, DC 20460
Phone (202) 564-8709
Fax (202) 564-5603

EPA-1692

**Rona
Birnbaum/DC/USEPA/US**
11/16/2009 09:09 AM

To Lesley Jantarasami
cc Ben DeAngelo
bcc
Subject Re: OGC's text?

it's no problem. maybe it is even in there but it just wasn't much so it didn't jump out at me. That can be easily deciphered.

Rona

Lesley Jantarasami [Hi Rona and Ben, Carol just had co...](#) 11/16/2009 09:00:34 AM

From: Lesley Jantarasami/DC/USEPA/US
To: Rona Birnbaum/DC/USEPA/US@EPA, Ben DeAngelo/DC/USEPA/US
Date: 11/16/2009 09:00 AM
Subject: Re: OGC's text?

Hi Rona and Ben,

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Lesley

----- Forwarded by Lesley Jantarasami/DC/USEPA/US on 11/16/2009 08:52 AM -----

From: Lesley Jantarasami/DC/USEPA/US
To: William Perkins/DC/USEPA/US@EPA, Michael Kolian/DC/USEPA/US@EPA, Jeremy Martinich/DC/USEPA/US@EPA, David Chalmers/DC/USEPA/US@EPA, Marcus Sarofim/DC/USEPA/US@EPA, Rona Birnbaum/DC/USEPA/US@EPA, Jason Samenow/DC/USEPA/US@EPA
Date: 11/12/2009 09:43 AM
Subject: Fw: 10 am mtg

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Also, Rona will be late, so Jason and I are facilitating.

Thanks!

Lesley

----- Forwarded by Lesley Jantarasami/DC/USEPA/US on 11/12/2009 09:39 AM -----

From: Carol Holmes/DC/USEPA/US
To: Lesley Jantarasami/DC/USEPA/US
Date: 11/12/2009 09:34 AM
Subject: 10 am mtg

EPA-EF-002807

Hi Lesley -- obviously I won't be coming to 1310 L street b/c I am working from home (fewer distractions overall). But hopefully we can still walk through comments together. Here is the latest set of my summaries -- the ones highlighted in blue are in the preamble in some version already. It hasn't changed much in recent weeks other than adding blue highlights. There are a few additional comments folks are working on separately, but let's focus on these first.

I suggest that while we'll want to make sure we flesh the responses in the preamble as necessary in the RTC, we start focusing on the comment summaries without any response now. At the mtg we can discuss how to get these into the master RTCs (to the extent they aren't already) and then work from those. THANKS

[attachment "Carol's sections of legal RTC 11 12 09.doc" deleted by Rona Birnbaum/DC/USEPA/US]

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Carol S. Holmes
Office of General Counsel
U.S. Environmental Protection Agency
1200 Pennsylvania Ave, NW (MC 2344A)
Washington, DC 20460
Phone (202) 564-8709
Fax (202) 564-5603

EPA-1693

Rona
Birnbaum/DC/USEPA/US
11/16/2009 09:18 AM

To Ben DeAngelo, Jason Samenow, Michael Kolian, Lesley Jantarasami, Jeremy Martinich, William Perkins, Marcus Sarofim, David Chalmers

cc

bcc

Subject for 9:30

(b)(5) Deliberative

Notes & Model responses.doc

(b)(5) Deliberative

STOCK LANGUAGE.doc

Notes from Dina. I will have copies for each of you for the 9:30

EPA-1694

Lesley Jantarasami
04/01/2010 03:44 PM

To
cc
bcc

Subject UPGOAD C:\Documents and Settings\ljantara\My Documents\Endangerment\01_Full Doc\Quickr drop 110609\RTC draft Volume 11 Cause or Contribute 111309.doc

(b)(5) Deliberative

- RTC draft Volume 11 Cause or Contribute 111309.doc

EPA-EF-002810

EPA-1695

**Jeremy
Martinich/DC/USEPA/US**
11/16/2009 10:46 AM

To David Chalmers
cc
bcc
Subject Fw: New net effects 4.5

Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

----- Forwarded by Jeremy Martinich/DC/USEPA/US on 11/16/2009 10:45 AM -----

From: William Perkins/DC/USEPA/US
To: Jason Samenow/DC/USEPA/US@EPA
Cc: Jeremy Martinich/DC/USEPA/US@EPA
Date: 11/12/2009 04:37 PM
Subject: New net effects 4.5

(b)(5) Deliberative

4_5_Consideration of Net Effects (harm vs. benefits).doc

Bill Perkins
Climate Change Adaptation Analyst
Climate Science and Impacts Branch
Climate Change Division
U.S. Environmental Protection Agency
perkins.william@epa.gov
(O) 202.343.9460
(F) 202.343.2202
(C) (b)(6)

EPA-EF-002811

EPA-1696

Jeremy
Martinich/DC/USEPA/US
11/16/2009 10:46 AM

To David Chalmers
cc
bcc
Subject Fw: Paragraph for review

Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

----- Forwarded by Jeremy Martinich/DC/USEPA/US on 11/16/2009 10:46 AM -----

From: Stephanie Waldhoff/DC/USEPA/US
To: Jeremy Martinich/DC/USEPA/US@EPA
Date: 11/16/2009 10:32 AM
Subject: Re: Paragraph for review

Hi Jeremy,

Sorry for not being able to look at this sooner. Last week was crazy with SCC stuff.

Your answer looks fine to me. The only other things I can think of to add (and you can judge whether it helps to add them) are: (b)(5) Deliberative

[Redacted]

Hope this helps.

Stephanie

Jeremy Martinich Thanks Stephanie. (b)(5) Deliberative 11/12/2009 04:21:26 PM

From: Jeremy Martinich/DC/USEPA/US
To: Stephanie Waldhoff/DC/USEPA/US@EPA
Date: 11/12/2009 04:21 PM
Subject: Paragraph for review

Thanks Stephanie.

(b)(5) Deliberative

[Redacted]. Would you mind taking a quick look?

(b)(5) Deliberative

(b)(5) Deliberative

Please let me know if we're off base here.

Thanks,
Jeremy

Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

EPA-1697

**Jeremy
Martinich/DC/USEPA/US**
11/16/2009 10:47 AM

To David Chalmers
cc
bcc
Subject Fw: RTC Volume 1

Thanks Dude. I appreciate your help with this.
Jeremy

Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

(b)(5) Deliberative
[Redacted]

(b)(5) Deliberative
[Redacted]

RTC_draft_Volume_1_110609 + DINA.doc RTC_draft_Volume_1_110609 + DINA+clean.doc

EPA-1698

**Jeremy
Martinich/DC/USEPA/US**
11/16/2009 10:48 AM

To Jason Samenow
cc
bcc
Subject Fw: RTC Volume 1

Thanks Jason.
Jeremy

Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

(b)(5) Deliberative

(b)(5) Deliberative

RTC_draft_Volume_1_110609 + DINA.doc RTC_draft_Volume_1_110609 + DINA+clean.doc

EPA-1699

**Jeremy
Martinich/DC/USEPA/US**
11/16/2009 10:54 AM

To Ben DeAngelo
cc
bcc
Subject Fw: RTC Volume 1

Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

----- Forwarded by Jeremy Martinich/DC/USEPA/US on 11/16/2009 10:54 AM -----

From: Rona Birnbaum/DC/USEPA/US
To: Jeremy Martinich/DC/USEPA/US@EPA, Lesley Jantarasami/DC/USEPA/US@EPA
Date: 11/13/2009 01:25 PM
Subject: Fw: RTC Volume 1

----- Forwarded by Rona Birnbaum/DC/USEPA/US on 11/13/2009 01:26 PM -----

From: Dina Kruger/DC/USEPA/US
To: Rona Birnbaum/DC/USEPA/US@EPA, Suzanne Kocchi/DC/USEPA/US@EPA
Date: 11/13/2009 01:18 PM
Subject: RTC Volume 1

Here are my comments. You might review it in the clean version, (b)(5) Deliberative. Also, will there be more things coming this weekend? (I forget what we decided...) I'm going to put in my last comments on Volume 7, and then turn to health.

(b)(5) Deliberative

(b)(5) Deliberative

RTC_draft_Volume_1_110609 + DINA.doc RTC_draft_Volume_1_110609 + DINA+clean.doc

Dina Kruger
Director, Climate Change Division
USEPA

202-343-9039 (phone)
202-343-2290 (fax)

EPA-EF-002816

EPA-1700

William Perkins/DC/USEPA/US
11/16/2009 11:34 AM

To Mae Thomas
cc
bcc
Subject New copyright docs

Mae,

Enclosed are the copyright docs received since the last batch at the end of August. I penciled in below in CAPS the new comment numbers for these. Also, most of these only add a page or two that was actually copyrighted but the rest of the response we already had. Could you please confirm that these were already in the database and then send me the additions that I need to let folks know about to include in their responses? Thank you.

Cheers,

Bill

Bill Perkins
Climate Change Adaptation Analyst
Climate Science and Impacts Branch
Climate Change Division
U.S. Environmental Protection Agency
perkins.william@epa.gov
(O) 202.343.9460
(F) 202.343.2202
(C) (b)(6)

----- Forwarded by William Perkins/DC/USEPA/US on 11/16/2009 11:30 AM -----

From: David Chalmers/DC/USEPA/US
To: William Perkins/DC/USEPA/US@EPA
Date: 11/16/2009 11:13 AM
Subject: Fw: Emailing: OAR-2009-0171-DRAFT-11601.1 No Data No Science by Marlo Lewis Phd GlobalWarming.org, OAR-2009-0171-DRAFT-11601, OAR-2009-0171-DRAFT-11603 Not by Fire but by Ice the Next Ice Age Now, OAR-2009-0171-DRAFT-11607.1 Sam Kazman Competitive Enterprise

Attached are the copyrighted docs submitted to the docket office since the last batch we received on Aug. 26. I'm also attaching the comment that accompanied drafts 11607.2 and 11607.1 (both of which we should probably address in volumes 3 and 4 and elsewhere). Note that as with previous batches of copyrighted docs, the numbers are draft numbers so different than the final numbers in regulations.gov.



EPA-HQ-OAR-2009-0171-11469.pdf

The responsive records include several copyrighted works. These are available for inspection at the EPA Docket Office under Docket ID# EPA-HQ-OAR-2009-0171.

----- Forwarded by David Chalmers/DC/USEPA/US on 11/16/2009 11:06 AM -----

From: Akram Assem/DC/USEPA/US
To: David Chalmers/DC/USEPA/US@EPA
Date: 11/16/2009 11:00 AM
Subject: Emailing: OAR-2009-0171-DRAFT-11601.1 No Data No Science by Marlo Lewis Phd GlobalWarming.org, OAR-2009-0171-DRAFT-11601, OAR-2009-0171-DRAFT-11603 Not by Fire but by Ice the Next Ice Age Now, OAR-2009-0171-DRAFT-11607.1 Sam Kazman Competitive

EPA-EF-002817

Enterprise

The message is ready to be sent with the following file or link attachments:

OAD-2009-0171-DRAFT-11601.1 No Data No Science by Marlo Lewis Phd GlobalWarming.org
COMMENT NUMBER 11466.1 PP. 52-53 NEW
OAD-2009-0171-DRAFT-11601 COMMENT NUMBER 11466
OAD-2009-0171-DRAFT-11603 Not by Fire but by Ice the Next Ice Age Now
OAD-2009-0171-DRAFT-11607.1 Sam Kazman Competitive Enterprise Institute Deconstructing Global
Warming- copyright version COMMENT NUMBER 11469.1
OAD-2009-0171-draft-11607.2 Sam Kazman, Competitive Enterprise Institute- On the determination of
climate - R.S. lindzen and YS Choi COMMENT NUMBER 11469.2

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

Assem Akram
USEPA Docket Center
Records Information Manager IV
ASRC Management Services-Contractor
Phone: (202) 566-9555
Email: assem.akram@epa.gov



- - OAD-2009-0171-DRAFT-11601.1 No Data No Science by Marlo Lewis Phd GlobalWarming.org.pdf
- - OAD-2009-0171-DRAFT-11601.pdf
- - OAD-2009-0171-DRAFT-11603 Not by Fire but by Ice the Next Ice Age Now.pdf
- - OAD-2009-0171-DRAFT-11607.1 Sam Kazman Competitive Enterprise Institute Deconstructing Global Warming- copyright version.pdf
- - OAD-2009-0171-draft-11607.2 Sam Kazman, Competitive Enterprise Institute- On the determination of climate - R.S. lindzen and YS Choi.pdf

The responsive records include several copyrighted works. These are available for inspection at the EPA Docket Office under Docket ID# EPA-HQ-OAD-2009-0171.

EPA-1701

Jason
Samenow/DC/USEPA/US
11/16/2009 11:52 AM

To Ben DeAngelo
cc Jeremy Martinich
bcc
Subject additional volume 10 comment/response

Ben--

We're moving the following comment/response from Volume 1 to Volume 10:

Comment:

(b)(5) Deliberative



Response:

(b)(5) Deliberative



EPA-EF-002819

(b)(5) Deliberative

(b)(5) Deliberative

EPA-1702

David
Chalmers/DC/USEPA/US
11/16/2009 12:23 PM

To Marcus Sarofim
cc
bcc

Subject Volume 3

the formatting needs cleaning up and there's still a few missing references, but should be close.

(b)(5) Deliberative

Volume 3 References.doc

David Chalmers
ORISE Fellow
U.S. EPA, Climate Change Division
202.343.9814

EPA-EF-002821

EPA-1703

**William
Perkins/DC/USEPA/US**
11/16/2009 01:14 PM

To Marcus Sarofim, David Chalmers
cc
bcc
Subject Fw: Parsed File in Word

Guys,

We may already have this covered (the enclosed graph of historic temperature to prove that climate change is a natural phenomenon) but in case we don't... This was attached to a comment that was already parsed out some time ago but the graph was not included.

Cheers,

Bill

Bill Perkins
Climate Change Adaptation Analyst
Climate Science and Impacts Branch
Climate Change Division
U.S. Environmental Protection Agency
perkins.william@epa.gov
(O) 202.343.9460
(F) 202.343.2202
(C) (b)(6)

----- Forwarded by William Perkins/DC/USEPA/US on 11/16/2009 01:13 PM -----

From: "Tracy Parham" <Tracy.Parham@erg.com>
To: William Perkins/DC/USEPA/US@EPA
Cc: "Mae Thomas" <Mae.Thomas@erg.com>
Date: 11/16/2009 01:11 PM
Subject: Fwd: Parsed File in Word

Bill,

Here is the Word document and PDF for the graph we discussed on Friday. It should be available on the web interface shortly.

Thank you,

Tracy

Tracy DeHaven Parham
Environmental Scientist

Eastern Research Group, Inc.
1600 Perimeter Park Drive
Morrisville, NC 27560
(919)-468-7901 (phone)
(919)-468-7801 (fax)

>>> Jody Tisano 11/16/2009 12:20 PM >>>
Here is the Word file for the following file.

EPA-EF-002822

Jody Tisano
ERG
1600 Perimeter Park
Morrisville, NC 27560
(919) 468-7900
E-mail: Jody.Tisano@erg.com

available at
[regulations.gov](http://www.regulations.gov)



Comment Code 9.6.2.4 Natural variability is a sufficient explanation.doc EPA-HQ-OAR-2009-0171-2979.1.pdf

EPA-1704

**Jeremy
Martinich/DC/USEPA/US**
11/16/2009 01:20 PM

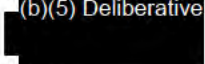
To David Chalmers
cc
bcc
Subject Fw: Vol 1

Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

----- Forwarded by Jeremy Martinich/DC/USEPA/US on 11/16/2009 01:19 PM -----

From: Rona Birnbaum/DC/USEPA/US
To: Jeremy Martinich/DC/USEPA/US@EPA, Lesley Jantarasami/DC/USEPA/US@EPA
Date: 11/11/2009 10:17 PM
Subject: Vol 1

I completed a re-review of Vol 1 and I think it's really good. Some relatively minor comments attached. I recommended to Dina that we send this over to OGC for review. Lets see what she says..

(b)(5) Deliberative


RTC draft Volume 1 General TSD Approach 110609.RB comments.doc

EPA-EF-002824

EPA-1705

Suzanne
Kocchi/DC/USEPA/US
11/16/2009 02:37 PM

To Dina Kruger
cc
bcc

Subject Re: heidi - endangment schedule

(b)(5) Deliberative

Dina Kruger Great - (b)(5) Deliberative 11/16/2009 02:35:31 PM

From: Dina Kruger/DC/USEPA/US
To: Suzanne Kocchi/DC/USEPA/US@EPA
Date: 11/16/2009 02:35 PM
Subject: Re: heidi - endangment schedule

Great - (b)(5) Deliberative

Or I can let them know.

Sent by EPA Wireless E-Mail Services

Suzanne Kocchi

----- Original Message -----

From: Suzanne Kocchi
Sent: 11/16/2009 02:29 PM EST
To: Dina Kruger
Cc: Rona Birnbaum
Subject: heidi - endangment schedule

Just talked to Heidi:

1) (b)(5) Deliberative

2) (b)(5) Deliberative

3) (b)(5) Deliberative

4) (b)(5) Deliberative

EPA-1706

Dina Kruger/DC/USEPA/US

11/16/2009 02:42 PM

To gina mccarthy

cc joseph goffman

bcc

Subject Endangerment update

Gina and Joe,

(b)(5) Deliberative

I'm doing an intro meeting with the interagency reviewers on Thursday morning. (Similar to last week's higher level meeting). They have received the documents, and (b)(5) Deliberative

Dina

Sent by EPA Wireless E-Mail Services

EPA-EF-002826

EPA-1707

William
Perkins/DC/USEPA/US
11/16/2009 02:48 PM

To Mae Thomas
cc
bcc
Subject new outline

Mae,

As discussed for the books DCN spreadsheet. I don't think this will take a person proficient in Excel more than an hour or so to transition to the new numbers with find/replace and add a category name column. Thank you.

Cheers,

Bill

(b)(5) Deliberative

RTC Outline 111209.doc

Bill Perkins
Climate Change Adaptation Analyst
Climate Science and Impacts Branch
Climate Change Division
U.S. Environmental Protection Agency
perkins.william@epa.gov
(O) 202.343.9460
(F) 202.343.2202
(C) (b)(6)

EPA-EF-002827

EPA-1708

Jeremy
Martinich/DC/USEPA/US
11/16/2009 03:22 PM

To Lesley Jantarasami
cc Ben DeAngelo
bcc
Subject Re: high-level summary for your review

Looks good to me.

Thanks,
Jeremy

Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

Lesley Jantarasami Hi guys, I wanted to get your comm... 11/16/2009 02:55:41 PM

From: Lesley Jantarasami/DC/USEPA/US
To: Ben DeAngelo/DC/USEPA/US, Jeremy Martinich/DC/USEPA/US@EPA
Date: 11/16/2009 02:55 PM
Subject: high-level summary for your review

Hi guys,

I wanted to get your comments on this stock language before sending it out to the whole group.

Thanks, Lesley

Stock Summary/Response to be Included at the Beginning of each Impact Section:

Comment:

(b)(5) Deliberative

Response:

(b)(5) Deliberative

EPA-1709

Ben DeAngelo/DC/USEPA/US

To Jeremy Martinich

11/16/2009 03:22 PM

cc Rona Birnbaum

bcc

Subject some edits/comments on vol 1

Jeremy, I provided edits/comments [REDACTED] (b)(5) Deliberative
[REDACTED] Let me know if any of mine require a walk thru with Dina's. Thanks.

[REDACTED] (b)(5) Deliberative

RTC draft Volume 1 General TSD Approach 110609 BJD.doc

Benjamin J. DeAngelo
Climate Change Division, Office of Atmospheric Programs
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW (6207J)
Washington, DC 20460

Tel: +1 202-343-9107
Fax: +1 202-343-2202
deangelo.ben@epa.gov

EPA-EF-002829

EPA-1710

Ben DeAngelo/DC/USEPA/US
11/16/2009 03:28 PM

To Lesley Jantarasami
cc Jeremy Martinich
bcc

Subject Re: high-level summary for your review

Just one minor change, see below. Thanks!

Lesley Jantarasami Hi guys, I wanted to get your comm... 11/16/2009 02:55:41 PM

From: Lesley Jantarasami/DC/USEPA/US
To: Ben DeAngelo/DC/USEPA/US, Jeremy Martinich/DC/USEPA/US@EPA
Date: 11/16/2009 02:55 PM
Subject: high-level summary for your review

Hi guys,

I wanted to get your comments on this stock language before sending it out to the whole group.

Thanks, Lesley

Stock Summary/Response to be Included at the Beginning of each Impact Section:

Comment:

(b)(5) Deliberative

Response:

(b)(5) Deliberative

EPA-1711

Ben DeAngelo

04/06/2010 04:56 PM

To

cc

bcc

Subject UPGOAD C:\Documents and Settings\owner\My Documents\Endangerment\Response to Public Comments\RTC draft Volume 1 General TSD Approach 110609 BJD.doc

(b)(5) Deliberative

- RTC draft Volume 1 General TSD Approach 110609 BJD.doc

EPA-EF-002831

EPA-1712

Marcus Sarofim
04/01/2010 08:02 PM

To
cc
bcc
Subject UPLOADED C:\Documents and Settings\msarofim\My Documents\WorkFolder\Tsd_Anpr\ResponseToComments\Volumes\Volume 3 References.doc

(b)(5) Deliberative

- Volume 3 References.doc

EPA-1713

Marcus Sarofim

04/01/2010 08:02 PM

To

cc

bcc

Subject UPGRADE C:\Documents and Settings\msarofim\My Documents\WorkFolder\Tsd_Anpr\ResponseToComments\Volumes\Volume 3 References-mcs.doc

(b)(5) Deliberative

- Volume 3 References-mcs.doc

EPA-1714

Michael Kolian/DC/USEPA/US
11/16/2009 04:46 PM

To Anne Grambsch
cc
bcc

Subject Re: volume 5 Human Health and Air Quality (EPA only)

Terrific.
I will incorporate these comments accordingly.

Thanks,
Mike

Anne Grambsch Hi Michael, I'm sorry about this late res... 11/13/2009 07:59:01 PM

From: Anne Grambsch/DC/USEPA/US
To: Michael Kolian/DC/USEPA/US@EPA
Cc: Ben DeAngelo/DC/USEPA/US@EPA, Darrell Winner/DC/USEPA/US@EPA, Doug Grano/RTP/USEPA/US@EPA, Rona Birnbaum/DC/USEPA/US@EPA
Date: 11/13/2009 07:59 PM
Subject: Re: volume 5 Human Health and Air Quality (EPA only)

Hi Michael,

I'm sorry about this late response (I was out last week and am just getting caught up).

So first, (b)(5) Deliberative

Second, if this does come back around (b)(5) Deliberative

1. (b)(5) Deliberative

2. (b)(5) Deliberative

3. (b)(5) Deliberative

Anne

Anne Grambsch
Global Change Research Program
USEPA-ORD-NCEA
N7813
Phone: (703) 347-8521
Fax: (703) 347-8694

Michael Kolian Hi Doug and Darrell, (b)(5) Deliberative 11/04/2009 12:26:43 PM

EPA-EF-002834

From: Michael Kolian/DC/USEPA/US
To: Doug Grano/RTP/USEPA/US@EPA, Darrell Winner/DC/USEPA/US@EPA, Anne Grambsch/DC/USEPA/US@EPA
Cc: Ben DeAngelo/DC/USEPA/US@EPA, Rona Birnbaum/DC/USEPA/US@EPA
Date: 11/04/2009 12:26 PM
Subject: volume 5 Human Health and Air Quality (EPA only)

Hi Doug and Darrell,

(b)(5) Deliberative

It would be great if you and your team could re-review the AQ section. There are a few outstanding minor comments/questions in the AQ section in particular. We anticipate additional comments/edits to the section (in red-line) from other reviewers so I'll will keep you in the loop.

Hi Anne,

I wonder if you could review the human heath section if you have the time. Any feedback would be great.

We're shooting for consistency in and among the various volumes by following some general guidelines (attached). It would be great if you could turn this around by the end of the week (preferably sooner). Please let me know if you have any questions.

Many thanks,
Mike

[attachment "RTC draft Volume 5 HH and AQ 110409a.doc" deleted by Anne Grambsch/DC/USEPA/US]
[attachment "Reminders on Style and Wording v2.doc" deleted by Anne Grambsch/DC/USEPA/US]

Michael Kolian, USEPA
Office of Atmospheric Programs
Climate Change Division
1200 Pennsylvania Avenue, NW (6207J)
Washington, DC 20460
Phone: (202) 343-9261
Email: kolian.michael@epa.gov

EPA-1715

William Perkins/DC/USEPA/US
11/16/2009 04:51 PM

To Jeremy Martinich
cc
bcc

Subject Fw: Emailing: OAR-2009-0171-DRAFT-11601.1 No Data No Science by Marlo Lewis Phd GlobalWarming.org, OAR-2009-0171-DRAFT-11601, OAR-2009-0171-DRAFT-11603 Not by Fire but by Ice the Next Ice Age Now, OAR-2009-0171-DRAFT-11607.1 Sam Kazman Competitive Enterprise

Bill Perkins
Climate Change Adaptation Analyst
Climate Science and Impacts Branch
Climate Change Division
U.S. Environmental Protection Agency
perkins.william@epa.gov
(O) 202.343.9460
(F) 202.343.2202
(C) (b)(6)

----- Forwarded by William Perkins/DC/USEPA/US on 11/16/2009 04:51 PM -----

From: David Chalmers/DC/USEPA/US
To: William Perkins/DC/USEPA/US@EPA
Date: 11/16/2009 11:13 AM
Subject: Fw: Emailing: OAR-2009-0171-DRAFT-11601.1 No Data No Science by Marlo Lewis Phd GlobalWarming.org, OAR-2009-0171-DRAFT-11601, OAR-2009-0171-DRAFT-11603 Not by Fire but by Ice the Next Ice Age Now, OAR-2009-0171-DRAFT-11607.1 Sam Kazman Competitive Enterprise

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EPA-HQ-OAR-2009-0171-11469.pdf

The responsive records include several copyrighted works. These are available for inspection at the EPA Docket Office under Docket ID # EPA-HQ-OAR-2009-0171.

----- Forwarded by David Chalmers/DC/USEPA/US on 11/16/2009 11:06 AM -----

From: Akram Assem/DC/USEPA/US
To: David Chalmers/DC/USEPA/US@EPA
Date: 11/16/2009 11:00 AM
Subject: Emailing: OAR-2009-0171-DRAFT-11601.1 No Data No Science by Marlo Lewis Phd GlobalWarming.org, OAR-2009-0171-DRAFT-11601, OAR-2009-0171-DRAFT-11603 Not by Fire but by Ice the Next Ice Age Now, OAR-2009-0171-DRAFT-11607.1 Sam Kazman Competitive Enterprise

The message is ready to be sent with the following file or link attachments:

- OAR-2009-0171-DRAFT-11601.1 No Data No Science by Marlo Lewis Phd GlobalWarming .org
- OAR-2009-0171-DRAFT-11601
- OAR-2009-0171-DRAFT-11603 Not by Fire but by Ice the Next Ice Age Now

EPA-EF-002836

OAR-2009-0171-DRAFT-11607.1 Sam Kazman Competitive Enterprise Institute Deconstucting Global Warming- copyright version
OAR-2009-0171-draft-11607.2 Sam Kazman, Competitive Enterprise Institute- On the determination of climate - R.S. lindzen and YS Choi

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

Assem Akram
USEPA Docket Center
Records Information Manager IV
ASRC Management Services-Contractor
Phone: (202) 566-9555
Email: assem.akram@epa.gov

The responsive records include several copyrighted works. These are available for inspection at the EPA Docket Office under Docket ID # EPA-HQ-OAR-2009-0171.



- - OAR-2009-0171-DRAFT-11601.1 No Data No Science by Marlo Lewis Phd GlobalWarming.org.pdf
- - OAR-2009-0171-DRAFT-11601.pdf
- - OAR-2009-0171-DRAFT-11603 Not by Fire but by Ice the Next Ice Age Now.pdf
- - OAR-2009-0171-DRAFT-11607.1 Sam Kazman Competitive Enterprise Institute Deconstucting Global Warming- copyright version.pdf
- - OAR-2009-0171-draft-11607.2 Sam Kazman, Competitive Enterprise Institute- On the determination of climate - R.S. lindzen and YS Choi.pdf

EPA-1716

Ben DeAngelo

04/06/2010 04:56 PM

To

cc

bcc

Subject UPGOAD C:\Documents and Settings\owner\My Documents\Endangerment\Response to Public Comments\Carol's sections of legal RTC 11 12 09.doc

(b)(5) Deliberative

- Carol's sections of legal RTC 11 12 09.doc

EPA-EF-002838

EPA-1717

Dina Kruger/DC/USEPA/US

11/16/2009 05:10 PM

To rona birnbaum

cc suzanne kocchi

bcc

Subject Schedule

(b)(5) Deliberative We need to talk tomorrow morning (probably at 10). Also, I'd like to talk to the team about my comments. (Probably best for them to hear it from me directly).

(b)(5) Deliberative

So, can you think about this and then let's meet?

Thanks -
Dina

Sent by EPA Wireless E-Mail Services

EPA-EF-002839

EPA-1718

**William
Perkins/DC/USEPA/US**
11/16/2009 05:10 PM

To Lesley Jantarasami
cc
bcc
Subject Task for ERG on RTC volumes -- remove public hearing
suffixes

Lesley,

I cannot find the document you put together for ERG, but I just wanted to send a reminder if it is not already there (and I am sure that it probably is!) that we need to have them remove the suffixes (e.g. NN, JJJJ) from the public hearing comment numbers, as they have no meaning outside of the ERG web interface. Thank you.

Cheers,

Bill

Bill Perkins
Climate Change Adaptation Analyst
Climate Science and Impacts Branch
Climate Change Division
U.S. Environmental Protection Agency
perkins.william@epa.gov
(O) 202.343.9460
(F) 202.343.2202
(C) (b)(6)

EPA-EF-002840

EPA-1720

Lesley Jantarasami
04/01/2010 03:42 PM

To
cc
bcc

Subject UPGRADE F:\Endangerment\02_Comments and Responses\Stock Language\Summary of Administrator's Weighting.doc

(b)(5) Deliberative

- Summary of Administrator's Weighting.doc

EPA-EF-002841

EPA-1721

Lesley Jantarasami
04/01/2010 03:49 PM

To
cc
bcc

Subject UPGRADE C:\Documents and Settings\ljantara\My Documents\Endangerment\02_Comments and Responses\Stock Language\Summary of Administrator's Weighting.doc

(b)(5) Deliberative

- Summary of Administrator's Weighting.doc

EPA-EF-002842

EPA-1722

William
Perkins/DC/USEPA/US
11/16/2009 05:39 PM

To perkins.william
cc
bcc
Subject Volume 8 backup

(b)(5) Deliberative

RTC Volume 8 Dina's incorporated - 111609.doc

Bill Perkins
Climate Change Adaptation Analyst
Climate Science and Impacts Branch
Climate Change Division
U.S. Environmental Protection Agency
perkins.william@epa.gov
(O) 202.343.9460
(F) 202.343.2202
(C) (b)(6)

EPA-EF-002843

EPA-1724

**Rona
Birnbaum/DC/USEPA/US**
11/16/2009 06:04 PM

To Michael Kolian
cc
bcc
Subject Fw: Ag/Forestry RTC

----- Forwarded by Rona Birnbaum/DC/USEPA/US on 11/16/2009 06:03 PM -----

From: Suzanne Kocchi/DC/USEPA/US
To: "Dina Kruger" <Kruger.Dina@epamail.epa.gov>
Cc: "Rona Birnbaum" <Birnbaum.Rona@epamail.epa.gov>
Date: 11/15/2009 07:29 PM
Subject: Fw: Ag/Forestry RTC

Attached are my comments on Vol 6. I think it might benefit from another revision (assuming it can be done quickly) before Dina reviews especially now that Dina has the stock phrases and model answers.

I apologize for not getting this done sooner - [REDACTED] (b)(6)

[REDACTED] I will
call/email when I know more.

----- Original Message -----

From: Suzanne Kocchi [REDACTED] (b)(6)
Sent: 11/15/2009 07:18 PM EST
To: Suzanne Kocchi
Subject: Ag/Forestry RTC

[REDACTED] (b)(5) Deliberative

RTC_draft_Volume_6_Ag_and_Forestry_110609_sk.doc

EPA-EF-002844

EPA-1725

David
Chalmers/DC/USEPA/US
11/16/2009 06:08 PM

To Jeremy Martinich
cc
bcc
Subject Volume 1

(b)(5) Deliberative

RTC_draft_Volume_1_110609 + DINA+clean+DBC.doc

David Chalmers
ORISE Fellow
U.S. EPA, Climate Change Division
202.343.9814

EPA-EF-002845

EPA-1726

David
Chalmers/DC/USEPA/US
11/16/2009 06:20 PM

To Lesley Jantarasami
cc William Perkins
bcc
Subject Re: Volume 8

Lo mio tambien, pero es bueno y comico practicar. Hasta jueves entonces.

Saludos,

David Chalmers
ORISE Fellow
U.S. EPA, Climate Change Division
202.343.9814

Lesley Jantarasami Que bueno! Me gustaria practicar... 11/16/2009 05:15:04 PM

From: Lesley Jantarasami/DC/USEPA/US
To: William Perkins/DC/USEPA/US@EPA
Cc: David Chalmers/DC/USEPA/US@EPA
Date: 11/16/2009 05:15 PM
Subject: Re: Volume 8

Que bueno! Me gustaria practicar mi espanol porque es muy terrible.

William Perkins Lesley, Thank you! 11/16/2009 05:07:10 PM

From: William Perkins/DC/USEPA/US
To: Lesley Jantarasami/DC/USEPA/US@EPA
Cc: David Chalmers/DC/USEPA/US@EPA
Date: 11/16/2009 05:07 PM
Subject: Re: Volume 8

Lesley,

Thank you!

Btw, you should join our una-vez-de-semana almuerzo para practicar nuestro espanol (mine is very bad as you can tell), which David organizes every Thursday at noon in the garden lobby next door.

Cheers,

Bill

Bill Perkins
Climate Change Adaptation Analyst
Climate Science and Impacts Branch
Climate Change Division
U.S. Environmental Protection Agency
perkins.william@epa.gov
(O) 202.343.9460

EPA-EF-002846

(F) 202.343.2202

(C) (b)(6)

Lesley Jantarasami Claro que si. I will definitely have ti... 11/16/2009 05:03:37 PM

From: Lesley Jantarasami/DC/USEPA/US
To: William Perkins/DC/USEPA/US@EPA
Cc: David Chalmers/DC/USEPA/US@EPA
Date: 11/16/2009 05:03 PM
Subject: Re: Volume 8

Claro que si. I will definitely have time to review stuff tomorrow or whenever it's ready.

Lesley

William Perkins David and Lesley, As you know, Dina h... 11/16/2009 04:38:45 PM

From: William Perkins/DC/USEPA/US
To: David Chalmers/DC/USEPA/US@EPA, Lesley Jantarasami/DC/USEPA/US@EPA
Date: 11/16/2009 04:38 PM
Subject: Volume 8

David and Lesley,

As you know, Dina had (b)(5) Deliberative Volume 8, which I have now been able to turn my attention to. I am not sure what your schedule looks like over the next couple of days, but would you be available and/or amenable to taking another look at the revised volume? (I hope to have it done tomorrow). If not, no worries at all, but I am sure that it would help to ensure that we have the best product to go forward, particularly since you guys have been involved in a lot more volumes than I. Thank you for your time and attention.

Cheers,

Bill

Bill Perkins
Climate Change Adaptation Analyst
Climate Science and Impacts Branch
Climate Change Division
U.S. Environmental Protection Agency
perkins.william@epa.gov
(O) 202.343.9460
(F) 202.343.2202
(C) (b)(6)

EPA-1727

Lesley Jantarasami
04/01/2010 03:44 PM

To
cc
bcc

Subject UPGOAD C:\Documents and Settings\ljantara\My Documents\Endangerment\01_Full Doc\Quickr drop 110609\RTC draft Volume 12 Implications 111609.doc

(b)(5) Deliberative

- RTC draft Volume 12 Implications 111609.doc

EPA-EF-002848

EPA-1728

Ben DeAngelo/DC/USEPA/US

11/16/2009 08:39 PM

To Dina Kruger, Rona Birnbaum

cc Lesley Jantarasami, Suzanne Kocchi

bcc

Subject draft vol 11 RTC

We still need to ID if/how many raw comments are missing from this volume. This is a re-worked version of what was already there. Some key comments here are addressed head on in the Findings, and those are indicated.

(b)(5) Deliberative

-Ben

(b)(5) Deliberative

RTC draft Volume 11 Cause or Contribute 111609 BJD.doc

Benjamin J. DeAngelo
Climate Change Division, Office of Atmospheric Programs
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW (6207J)
Washington, DC 20460

Tel: +1 202-343-9107
Fax: +1 202-343-2202
deangelo.ben@epa.gov

EPA-EF-002849

EPA-1729

Ben DeAngelo

04/06/2010 04:56 PM

To

cc

bcc

Subject UPGRADE C:\Documents and Settings\owner\My Documents\Endangerment\Response to Public Comments\RTC draft Volume 11 Cause or Contribute 111609 BJD.doc

(b)(5) Deliberative

- RTC draft Volume 11 Cause or Contribute 111609 BJD.doc

EPA-EF-002850

EPA-1730

Lesley Jantarasami
04/01/2010 03:44 PM

To
cc
bcc

Subject UPGOAD C:\Documents and Settings\ljantara\My Documents\Endangerment\01_Full Doc\Quickr drop 110609\RTC draft Volume 11 Cause or Contribute 111609 BJD.doc

(b)(5) Deliberative

- RTC draft Volume 11 Cause or Contribute 111609 BJD.doc

EPA-EF-002851

EPA-1731

Rona
Birnbaum/DC/USEPA/US
11/16/2009 11:24 PM

To Dina Kruger
cc Suzanne Kocchi
bcc
Subject another Vol and meet tomorrow

Dina, attached is Vol 3 [REDACTED] (b)(5) Deliberative

Sounds like you told Suzie that 1:00 works for you...which is fine. When we meet, we can focus on priorities for your review and cover overall status. [REDACTED] (b)(5) Deliberative

[REDACTED] perhaps we can plan on using 809 as the MRR folks did and that way you can join us..or not, depending on your availability. So, next team meeting will be Wednesday at 8:30.

(b)(5) Deliberative

RTC draft Volume 3 Attribution 110309.RB Comments.doc

EPA-EF-002852

EPA-1733

**Jeremy
Martinich/DC/USEPA/US**
11/17/2009 09:30 AM

To Lesley Jantarasami
cc
bcc

Subject Re: Stock Language for Uncertainty

Works with me.

Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

Lesley Jantarasami What do you think about these sma... 11/16/2009 04:26:23 PM

From: Lesley Jantarasami/DC/USEPA/US
To: Jeremy Martinich/DC/USEPA/US@EPA, Jason Samenow/DC/USEPA/US@EPA
Date: 11/16/2009 04:26 PM
Subject: Re: Stock Language for Uncertainty

What do you think about these small changes?

(b)(5) Deliberative

Jeremy Martinich Hey Jason, I was thinking that we als... 11/16/2009 03:31:36 PM

From: Jeremy Martinich/DC/USEPA/US
To: Jason Samenow/DC/USEPA/US@EPA
Cc: Lesley Jantarasami/DC/USEPA/US@EPA, Rona Birnbaum/DC/USEPA/US@EPA
Date: 11/16/2009 03:31 PM
Subject: Stock Language for Uncertainty

Hey Jason,

I was thinking that we also need some stock language for referring to the uncertainty section. What do you think about the following:

(b)(5) Deliberative

Anything else to add? Let me know if you have thoughts.

Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

EPA-EF-002853

EPA-1734

Dina Kruger/DC/USEPA/US

Sent by: Anne Hargrove

11/17/2009 09:35 AM

To Carol Holmes, John Hannon, Rona Birnbaum, Suzanne Kocchi

cc

bcc

Subject Dina, Rona, SuzieK, Ben, Carol Holmes, John Hannon /
Discuss Review of Endangerment RTCs w/OGC / RM 809 "L"
/ (b)(6)

Meeting

Date 11/18/2009 04:00:00 PM

Time 04:00:00 PM to 04:30:00 PM

Chair Dina Kruger

Invitees

Required Carol Holmes; John Hannon; Rona Birnbaum; Suzanne Kocchi

Optional

FYI

Location

EPA-EF-002854

EPA-1735

Erin Birgfeld/DC/USEPA/US

11/17/2009 10:06 AM

To Amy Dewey, Andrea Drinkard, Cathy Milbourn, Jason Samenow, John Millett, Lesley Jantarasami, Rona Birnbaum, Roxanne Smith, Shakeba Carter-Jenkins, William Perkins
cc Stacy Kika

bcc

Subject Information Update - Description has changed: Roll Out Planning for Endangerment

(b)(5) Deliberative

(b)(5) Deliberative

Endangerment Q&As for Final Findings 111009.doc Talking Points for Final Findings 111009.doc

(b)(5) Deliberative

(b)(5) Deliberative

Fact Sheet for Final Findings 111609 EB.doc Endangerment Communications Strategy and Check List(OMB) 110609.doc

EPA-1736

Rona
Birnbaum/DC/USEPA/US
11/17/2009 10:42 AM

To Marcus Sarofim, Jason Samenow, David Chalmers
cc
bcc
Subject Vol 3 w/comments from Rona

(b)(5) Deliberative

RTC draft Volume 3 Attribution 110309.RB Comments.doc

Needs some cross-walk with the findings. I sent this to Dina last night.

EPA-EF-002856

EPA-1737

Erin Birgfeld/DC/USEPA/US
11/17/2009 11:39 AM

To Amy Dewey, Andrea Drinkard, Cathy Milbourn, Jason
Samenow, John Millett, Lesley Jantarasami, Rona Birnbaum,
Roxanne Smith, Shakeba Carter-Jenkins, William Perkins
cc Stacy Kika
bcc

Subject Information Update - Location has changed: Roll Out
Planning for Endangerment

(b)(5) Deliberative

(b)(5) Deliberative

Endangerment Q&As for Final Findings 111009.doc Talking Points for Final Findings 111009.doc

(b)(5) Deliberative

(b)(5) Deliberative

Fact Sheet for Final Findings 111609 EB.doc Endangerment Communications Strategy and Check List(OMB) 110609.doc

EPA-EF-002857

EPA-1738

Jeremy
Martinich/DC/USEPA/US
11/17/2009 12:08 PM

To Lesley Jantarasami
cc
bcc
Subject

Comment:

(b)(5) Deliberative

Response:

(b)(5) Deliberative

[Redacted]

[Redacted]

Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

EPA-1739

Lesley
Jantarasami/DC/USEPA/US
11/17/2009 01:00 PM

To Jeremy Martinich, Jason Samenow
cc
bcc
Subject climate vs. non-climate drivers comment

Hi guys,

Here is the comment we discussed. Please feel free to edit as you see fit. Note that I think we should
(b)(5) Deliberative
I'm leaving for a communications meeting over in Ariel Rios at 1:40, but I'll be back later this afternoon.

Cheers,

Lesley

Summary/Response to be Included in Section 1.2 Level of Scientific Certainty

Comment:

(b)(5) Deliberative

Response:

(b)(5) Deliberative

(b)(5) Deliberative

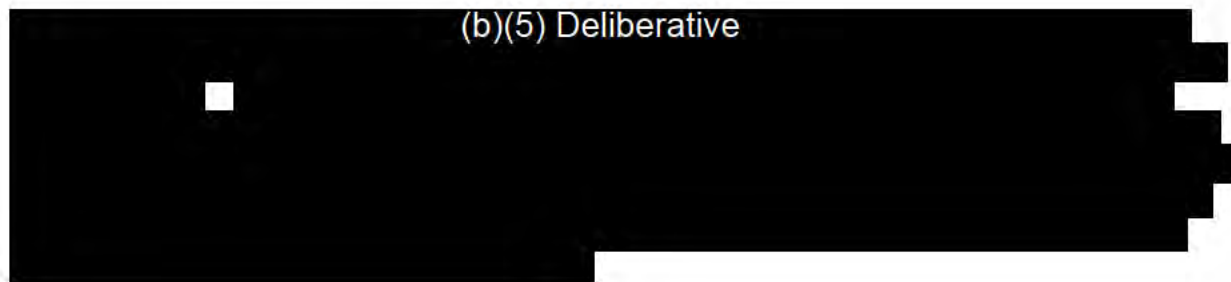
EPA-1740

**Jeremy
Martinich/DC/USEPA/US**
11/17/2009 01:28 PM

To Michael Kolian
cc
bcc
Subject Fw: Children addition

Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

(b)(5) Deliberative



EPA-1741

Lesley
Jantarasami/DC/USEPA/US
11/17/2009 01:36 PM

To Ben DeAngelo
cc Jeremy Martinich
bcc
Subject Fw: climate vs. non-climate drivers comment

Hi Ben,

See this new overarching comment/response below (b)(5) Deliberative

Thanks,

Lesley

Summary/Response to be Included in Section 1.2 Level of Scientific Certainty

Comment:

(b)(5) Deliberative

Response:

(b)(5) Deliberative

(b)(5) Deliberative

EPA-1742

Lesley Jantarasami
04/01/2010 03:52 PM

To
cc
bcc

Subject UPGOAD C:\Documents and Settings\ljantara\My Documents\Endangerment\04_Schedule\Review Table_Endangerment 111609.xls

(b)(5) Deliberative

- Review Table_Endangerment 111609.xls

EPA-1743

**Rona
Birnbaum/DC/USEPA/US**
11/17/2009 02:15 PM

To Lesley Jantarasami
cc Ben DeAngelo, Jason Samenow, Marcus Sarofim
bcc

Subject Re: stock summary/response re: impacts and endangerment

Lesley, I think (b)(5) Deliberative what do you all think?

Rona

Lesley Jantarasami Hello Volume 5-8 Leaders, Please... 11/17/2009 01:27:47 PM

From: Lesley Jantarasami/DC/USEPA/US
To: Michael Kolian/DC/USEPA/US@EPA, Jeremy Martinich/DC/USEPA/US@EPA, Bill Perkins <perkins.william@epa.gov>
Cc: Rona Birnbaum/DC/USEPA/US@EPA, Ben DeAngelo/DC/USEPA/US
Date: 11/17/2009 01:27 PM
Subject: stock summary/response re: impacts and endangerment

Hello Volume 5-8 Leaders,

Please add the following stock summary/response to the beginning of each of the sections in your volume(s). You can also add some representative commenter numbers in the summary if easily found for each section.

Thanks,

Lesley

Stock Summary/Response to be Included at the Beginning of each Impact Section in vols 5-8:

Comment:

(b)(5) Deliberative

Response:

(b)(5) Deliberative

EPA-1744

**Rona
Birnbaum/DC/USEPA/US**
11/17/2009 03:13 PM

To Lesley Jantarasami, Jeremy Martinich
cc
bcc
Subject Fw: Ag/Forestry RTC

FYI. I already sent this to Mike as well.

----- Forwarded by Rona Birnbaum/DC/USEPA/US on 11/17/2009 03:12 PM -----

From: Suzanne Kocchi/DC/USEPA/US
To: "Dina Kruger" <Kruger.Dina@epamail.epa.gov>
Cc: "Rona Birnbaum" <Birnbaum.Rona@epamail.epa.gov>
Date: 11/15/2009 07:29 PM
Subject: Fw: Ag/Forestry RTC

Attached are my comments on Vol 6. I think it might benefit from another revision (assuming it can be done quickly) before Dina reviews especially now that Dina has the stock phrases and model answers.

I apologize for not getting this done sooner - [REDACTED] (b)(6)
[REDACTED] I will
call/email when I know more.

----- Original Message -----

From: Suzanne Kocchi [REDACTED] (b)(6)
Sent: 11/15/2009 07:18 PM EST
To: Suzanne Kocchi
Subject: Ag/Forestry RTC

[REDACTED] (b)(5) Deliberative

RTC_draft_Volume_6_Ag_and_Forestry_110609_sk.doc

EPA-EF-002867

EPA-1745

Suzanne
Kocchi/DC/USEPA/US
11/17/2009 04:04 PM

To Lesley Jantarasami
cc
bcc
Subject Re: review table

yea, the only consideration is, [REDACTED] (b)(5) Deliberative [REDACTED]

Lesley Jantarasami Here is the latest. We may also wa... 11/17/2009 03:57:46 PM

From: Lesley Jantarasami/DC/USEPA/US
To: Suzanne Kocchi/DC/USEPA/US@EPA
Date: 11/17/2009 03:57 PM
Subject: review table

Here is the latest. We may also want to consider including a column for ERG copy-editing. (b)(5) Deliberative [REDACTED]

(b)(5) Deliberative [REDACTED]

Review Table_Endangerment 111609.xls

Lesley

EPA-EF-002868

EPA-1746

Suzanne
Kocchi/DC/USEPA/US
11/17/2009 04:11 PM

To Lesley Jantarasami
cc
bcc
Subject Re: review table

yes, i think that is what you will have to do [REDACTED] (b)(5) Deliberative

Lesley Jantarasami Yeah, we may be able to get aroun... 11/17/2009 04:07:09 PM

From: Lesley Jantarasami/DC/USEPA/US
To: Suzanne Kocchi/DC/USEPA/US@EPA
Date: 11/17/2009 04:07 PM
Subject: Re: review table

Yeah, we may be able to get around that problem if possible by [REDACTED] (b)(5) Deliberative

Suzanne Kocchi yea, the only consideration is [REDACTED] (b)(5) Deliberative 11/17/2009 04:04:02 PM

From: Suzanne Kocchi/DC/USEPA/US
To: Lesley Jantarasami/DC/USEPA/US@EPA
Date: 11/17/2009 04:04 PM
Subject: Re: review table

yea, the only consideration is, [REDACTED] (b)(5) Deliberative

Lesley Jantarasami Here is the latest. We may also wa... 11/17/2009 03:57:46 PM

From: Lesley Jantarasami/DC/USEPA/US
To: Suzanne Kocchi/DC/USEPA/US@EPA
Date: 11/17/2009 03:57 PM
Subject: review table

Here is the latest. We may also want to consider including a column for ERG copy-editing. [REDACTED] (b)(5) Deliberative

[attachment "Review Table_Endangerment 111609.xls" deleted by Lesley Jantarasami/DC/USEPA/US]

Lesley

EPA-EF-002869

EPA-1748

William Perkins/DC/USEPA/US
11/17/2009 05:02 PM

To Lesley Jantarasami
cc
bcc
Subject Re: stock summary/response re: impacts and endangerment

Lesley,

That is fine on Vol 8.

Cheers,

Bill

Bill Perkins
Climate Change Adaptation Analyst
Climate Science and Impacts Branch
Climate Change Division
U.S. Environmental Protection Agency
perkins.william@epa.gov
(O) 202.343.9460
(F) 202.343.2202
(C) (b)(6)

Lesley Jantarasami Unfortunately, (b)(5) Deliberative 11/17/2009 04:56:24 PM

From: Lesley Jantarasami/DC/USEPA/US
To: William Perkins/DC/USEPA/US@EPA
Date: 11/17/2009 04:56 PM
Subject: Re: stock summary/response re: impacts and endangerment

Unfortunately, (b)(5) Deliberative

That's fantastic news about Erin's offer. That will really allow us to concentrate on these RTC volumes.

Lesley

William Perkins Lesley, Thank you, I will wrap this in. 11/17/2009 04:45:40 PM

From: William Perkins/DC/USEPA/US
To: Lesley Jantarasami/DC/USEPA/US@EPA
Date: 11/17/2009 04:45 PM
Subject: Re: stock summary/response re: impacts and endangerment

Lesley,

Thank you, I will wrap this in.

Also, as an update to Volume 8, (b)(5) Deliberative
if you are still available to do

EPA-EF-002870

that.

Also, Erin dropped me a line and she offered to Rona that she could take a crack at revising our comms documents based upon the meeting today, and simplifying the Q&As, as you and I are too busy the next couple of days to do anything with them. Which is a fantastic gesture on her part as it gives us some breathing room there to focus on RTC, etc.

Thank you.

Cheers,

Bill

Bill Perkins
Climate Change Adaptation Analyst
Climate Science and Impacts Branch
Climate Change Division
U.S. Environmental Protection Agency
perkins.william@epa.gov
(O) 202.343.9460
(F) 202.343.2202
(C) (b)(6)

Lesley Jantarasami Hello Volume 5-8 Leaders, Please... 11/17/2009 01:27:47 PM

From: Lesley Jantarasami/DC/USEPA/US
To: Michael Kolian/DC/USEPA/US@EPA, Jeremy Martinich/DC/USEPA/US@EPA, Bill Perkins <perkins.william@epa.gov>
Cc: Rona Birnbaum/DC/USEPA/US@EPA, Ben DeAngelo/DC/USEPA/US
Date: 11/17/2009 01:27 PM
Subject: stock summary/response re: impacts and endangerment

Hello Volume 5-8 Leaders,

Please add the following stock summary/response to the beginning of each of the sections in your volume(s). You can also add some representative commenter numbers in the summary if easily found for each section.

Thanks,

Lesley

Stock Summary/Response to be Included at the Beginning of each Impact Section in vols 5-8:

Comment:

(b)(5) Deliberative

Response:

(b)(5) Deliberative

(b)(5) Deliberative

EPA-1749

**Suzanne
Kocchi/DC/USEPA/US**
11/17/2009 05:08 PM

To Rona Birnbaum
cc
bcc

Subject ok - here is a version of schedule

[REDACTED] (b)(5) Deliberative
[REDACTED] if you are ok with it. we need to get a copy to dina
tonight and discuss with staff tmrw morning.

[REDACTED] (b)(5) Deliberative
[REDACTED]
Review Table_Endangerment 111709_sk.xls

EPA-1751

Suzanne
Kocchi/DC/USEPA/US
11/17/2009 05:13 PM

To
cc Rona Birnbaum
bcc
Subject Re: ok - here is a version of schedule - UPDATED

slightly updated (more colors)

(b)(5) Deliberative

Review Table_Endangerment 111709_sk.xls

Suzanne Kocchi

(b)(5) Deliberative

11/17/2009 05:08:14 PM

From: Suzanne Kocchi/DC/USEPA/US
To: Rona Birnbaum/DC/USEPA/US@EPA
Date: 11/17/2009 05:08 PM
Subject: ok - here is a version of schedule

(b)(5) Deliberative

we need to get a copy to dina tonight and discuss with staff tmrw morning.

EPA-1752

David
Chalmers/DC/USEPA/US
11/17/2009 05:22 PM

To: Jeremy Martinich
cc
bcc
Subject: Re: 1

Vol. 1 with updates [redacted] (b)(5) Deliberative . Track change and clean versions attached. Clean version should hopefully be good to go. [redacted] (b)(5) Deliberative

Have a great night.

[redacted] (b)(5) Deliberative

RTC draft Volume 1 General TSD Approach 11-16-09+DBC.doc

[redacted] (b)(5) Deliberative

RTC draft Volume 1 General TSD Approach 11-16-09+DBC CLEAN.doc

David Chalmers
ORISE Fellow
U.S. EPA, Climate Change Division
202.343.9814

Jeremy Martinich ***** Jeremy Martinich 11/17/2009 03:41:54 PM

From: Jeremy Martinich/DC/USEPA/US
To: David Chalmers/DC/USEPA/US@EPA
Date: 11/17/2009 03:41 PM
Subject: 1

[attachment "RTC draft Volume 1 General TSD Approach 11-16-09.doc" deleted by David Chalmers/DC/USEPA/US]

Jeremy Martinich
USEPA, Climate Change Division
202-343-9871

EPA-1753

David
Chalmers/DC/USEPA/US
11/17/2009 05:36 PM

To Jeremy Martinich
cc
bcc

Subject USE THIS ONE

Sorry. Caught a few typos (b)(5) Deliberative

(b)(5) Deliberative

RTC draft Volume 1 General TSD Approach 11-16-09+DBC CLEAN.doc

David Chalmers
ORISE Fellow
U.S. EPA, Climate Change Division
202.343.9814

EPA-EF-002876

EPA-1754

David
Chalmers/DC/USEPA/US
11/17/2009 05:37 PM

To Jeremy Martinich
cc
bcc
Subject LAST ONE!!!

(b)(5) Deliberative

RTC draft Volume 1 General TSD Approach 11-16-09+DBC CLEAN.doc

David Chalmers
ORISE Fellow
U.S. EPA, Climate Change Division
202.343.9814

EPA-EF-002877

EPA-1755

Rona
Birnbaum/DC/USEPA/US
11/17/2009 05:38 PM

To Ben DeAngelo, Jason Samenow, Jeremy Martinich, Michael Kolian, Lesley Jantarasami, Marcus Sarofim, William Perkins, David Chalmers
cc
bcc
Subject for 8:30

in case I need to remind anybody (b)(5) Deliberative see review table.schedule attached. See you at 8:30 am.
thanks!!

(b)(5) Deliberative

Review Table_Endangerment 111709_sk.xls

EPA-1756

William
Perkins/DC/USEPA/US
11/17/2009 05:39 PM

To perkins.william
cc
bcc
Subject Volume 8 backup

(b)(5) Deliberative

RTC Volume 8 Dina's incorporated - 111709.doc

Bill Perkins
Climate Change Adaptation Analyst
Climate Science and Impacts Branch
Climate Change Division
U.S. Environmental Protection Agency
perkins.william@epa.gov
(O) 202.343.9460
(F) 202.343.2202
(C) (b)(6)

EPA-EF-002879

EPA-1757

**Suzanne
Kocchi/DC/USEPA/US**
11/17/2009 05:44 PM

To Rona Birnbaum
cc Dina Kruger
bcc
Subject Re: revised endangerment review table

assuming you are ok with it,, (b)(5) Deliberative

Rona Birnbaum [see revised Review Table/Schedule. ...](#) 11/17/2009 05:42:01 PM

From: Rona Birnbaum/DC/USEPA/US
To: Dina Kruger/DC/USEPA/US@EPA, Suzanne Kocchi/DC/USEPA/US@EPA
Date: 11/17/2009 05:42 PM
Subject: revised endangerment review table

see revised Review Table/Schedule. Dina, note the column that has dates for your own completed reviews. You'll need to let Suzie and I know whether those are feasible or if adjustments need to be made.

See you at 8:30.

(b)(5) Deliberative

Review Table_Endangerment 111709_sk.xls

EPA-EF-002880

EPA-1758

Ben DeAngelo

04/06/2010 04:56 PM

To

cc

bcc

Subject UPGRADE C:\Documents and Settings\owner\My Documents\Endangerment\Response to Public Comments\Review Table_Endangerment 111709_sk.xls

(b)(5) Deliberative

- Review Table_Endangerment 111709_sk.xls

EPA-EF-002881

EPA-1759

William
Perkins/DC/USEPA/US
11/17/2009 06:51 PM

To perkins.william
cc
bcc
Subject Volume 8 backup

(b)(5) Deliberative

RTC Volume 8 Dina's incorporated - 111709.doc

Bill Perkins
Climate Change Adaptation Analyst
Climate Science and Impacts Branch
Climate Change Division
U.S. Environmental Protection Agency
perkins.william@epa.gov
(O) 202.343.9460
(F) 202.343.2202
(C) (b)(6)

EPA-EF-002882

EPA-1760

Marcus
Sarofim/DC/USEPA/US
11/17/2009 07:31 PM

To Jason Samenow
cc
bcc

Subject Re: propagation of uncertainty comment

Here's my attempt

(b)(5) Deliberative

-Marcus

Response:

(b)(5) Deliberative

[Redacted]

EPA-EF-002883

(b)(5) Deliberative

[Redacted]

[Redacted]

[Redacted]

Marcus C. Sarofim, PhD
phone: 202-343-9993
fax: 202-343-2202
1310 L Street 256C
AAAS Science & Technology Policy Fellow
with the EPA Climate Division


Jason Samenow **Comment:** (b)(5) Deliberative 11/17/2009 05:28:57 PM

From: Jason Samenow/DC/USEPA/US
To: Marcus Sarofim/DC/USEPA/US@EPA
Date: 11/17/2009 05:28 PM
Subject: propagation of uncertainty comment

Comment:
(b)(5) Deliberative

Response:
(b)(5) Deliberative

(b)(5) Deliberative



EPA-1761

Jason
Samenow/DC/USEPA/US
11/17/2009 08:03 PM

To Jeremy Martinich
cc
bcc

Subject uncertainty comment-responses

Jeremy,

Please find attached my edited version of the uncertainty subsection of Volume 1 in tracked changes -- which includes BOTH my edits based on Dina's comments AND new comments/responses.

See also attached a separate document which includes ONLY the new comments/responses we have been added since Dina last saw this. I'm going to send this to Rona to review, and suggest Dina review as well.

Thanks for your patience on this. Was a fair amount of work.

Jason

(b)(5) Deliberative

(b)(5) Deliberative

RTC_draft_Volume_1_110609 + DINA + JASON.doc new uncertainty comment-responses.doc

EPA-1762

Jason
Samenow/DC/USEPA/US
11/17/2009 08:11 PM

To Rona Birnbaum
cc Jeremy Martinich, Marcus Sarofim, Lesley Jantarasami, Ben
DeAngelo
bcc
Subject new uncertainty comment/responses

Rona--

Please see the attached new comments/responses on uncertainty for Volume I. Dina should definitely review.

Thanks to Marcus and Lesley for assistance on a couple of these.

Jason

(b)(5) Deliberative

new uncertainty comment-responses.doc

EPA-EF-002887

EPA-1763

Rona
Birnbaum/DC/USEPA/US
11/17/2009 09:30 PM

To Jason Samenow
cc Ben DeAngelo, David Chalmers, Jeremy Martinich, Marcus Sarofim, Michael Kolian, William Perkins, Lesley Jantarasami
bcc

Subject Re: action required: monckton's 50 red flags

Thanks Jason and yes, you are absolutely right about folks going back through for additional QA.
Rona

Jason Samenow Team-- Having reviewed Monckton's... 11/17/2009 08:44:08 PM

From: Jason Samenow/DC/USEPA/US
To: Marcus Sarofim/DC/USEPA/US@EPA, David Chalmers/DC/USEPA/US@EPA, Jeremy Martinich/DC/USEPA/US@EPA, Michael Kolian/DC/USEPA/US@EPA
Cc: Rona Birnbaum/DC/USEPA/US@EPA, Ben DeAngelo/DC/USEPA/US@EPA, William Perkins/DC/USEPA/US@EPA
Date: 11/17/2009 08:44 PM
Subject: action required: monckton's 50 red flags

Team--

Having reviewed Monckton's 50 red flags that were submitted (see: http://scienceandpublicpolicy.org/images/stories/papers/reprint/markey_and_barton_letter.pdf) , I think [REDACTED]

Note to Bill-- I do not think [REDACTED] (b)(5) Deliberative

Note this is comment #: 0700.1 (and several other commenters refer to this Monckton document (3569.1, 0591, 0482.1, 3906)

[REDACTED] (b)(5) Deliberative

[REDACTED]

Here's my take on what needs to be done:

[REDACTED] (b)(5) Deliberative

(b)(5) Deliberative

[REDACTED]

[REDACTED]

(b)(5) Deliberative

[REDACTED]

EPA-1764

Mike Kolian

(b)(6)

11/17/2009 09:46 PM

To Michael Kolian

cc

bcc

Subject hh

Windows 7: I wanted simpler, now it's simpler. [I'm a rock star.](#)

(b)(5) Deliberative

RTC draft Volume 5

EPA-1765

Ben DeAngelo

04/06/2010 04:56 PM

To

cc

bcc

Subject UPGRADE C:\Documents and Settings\owner\My Documents\Endangerment\Response to Public Comments\RTC draft Volume 10 Endangerment 110609.doc

(b)(5) Deliberative

 - RTC draft Volume 10 Endangerment 110609.doc

EPA-EF-002891

EPA-1766

Ben DeAngelo

04/06/2010 04:56 PM

To

cc

bcc

Subject UPGRADE C:\Documents and Settings\owner\My Documents\Endangerment\Response to Public Comments\RTC draft Volume 10 Endangerment 111709 BJD.doc

(b)(5) Deliberative

 - RTC draft Volume 10 Endangerment 111709 BJD.doc

EPA-1767

Michael Kolian/DC/USEPA/US

11/18/2009 07:40 AM

To Doug Grano

cc Ben DeAngelo, Bryan Bloomer, Darrell Winner

bcc

Subject Re: may need to confer on air quality endangerment comments again over next day or two

Doug,
I will be sending another version later today.

Thanks,
Mike

Doug Grano I'm here also this week. Do you want u... 11/17/2009 10:27:00 AM

From: Doug Grano/RTP/USEPA/US
To: Darrell Winner/DC/USEPA/US@EPA
Cc: Ben DeAngelo/DC/USEPA/US@EPA, Bryan Bloomer/DC/USEPA/US@EPA, Michael Kolian/DC/USEPA/US@EPA
Date: 11/17/2009 10:27 AM
Subject: Re: may need to confer on air quality endangerment comments again over next day or two

I'm here also this week. Do you want us to wait for the next version or send revisions (mostly in response to track changes comments) on the 11-9 version soon?

--Doug

Darrell Winner OK, Bryan and I are here this week and... 11/17/2009 09:53:14 AM

From: Darrell Winner/DC/USEPA/US
To: Ben DeAngelo/DC/USEPA/US@EPA
Cc: Doug Grano/RTP/USEPA/US@EPA, Michael Kolian/DC/USEPA/US@EPA, Bryan Bloomer/DC/USEPA/US@EPA
Date: 11/17/2009 09:53 AM
Subject: Re: may need to confer on air quality endangerment comments again over next day or two

OK, Bryan and I are here this week and will start our engines...

-darrell

Darrell Winner, Ph.D.
Director, Applied Science Division
National Center for Environmental Research
winner.darrell@epa.gov
phone 202-343-9748
fax 202-233-0677

Regular mail:
USEPA/ORD/NCER/ASD (8726F)
1200 Pennsylvania Ave NW
Washington, DC 20460-0001

FedEx/Courier:
USEPA/ORD/NCER/ASD
Room 3111
1025 F St NW

EPA-EF-002893