From: Joyce Donohue
To: Donohue, Joyce
Subject: Fw: mclg to rfd
Date: Thursday, May 02, 2013 2:41:38 PM

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----- Forwarded by Joyce Donohue/DC/USEPA/US on 05/02/2013 02:06 PM -----

From: Joyce Donohue/DC/USEPA/US
To: Jonathan Fleuchaus/DC/USEPA/US@EPA
Date: 06/17/2009 10:16 AM
Subject: Re: mclg to rfd

I agree that you do not need that detail. I was just unsure how it was done and had been under the impression from earlier discussions that the 8 mg was divided by body weight rather than taking concentration times consumption and dividing by body weight. I do not think I ever saw anything in writing on how it was done, so I just misunderstood the verbal description. My questions was driven by my curiosity rather than a need to include the information in the briefing.

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Jonathan Fleuchaus---06/17/2009 10:07:17 AM---You are correct, in back-calculating we multiplied the MCLG by consumption (by age group) and then d

From: Jonathan Fleuchaus/DC/USEPA/US

To: Joyce Donohue/DC/USEPA/US@EPA

Cc: Angela Huskey/DC/USEPA/US@EPA, Wynne Miller/DC/USEPA/US@EPA

Date: 06/17/2009 10:07 AM

Subject: Re: mclg to rfd

You are correct, in back-calculating we multiplied the MCLG by consumption (by age group) and then divided by body weight (by age group). Thus for adults it was (4 mg/L x 2 L/day)/70 kg. I didn't think all of that detail was necessary for this briefing.

I will add the reference to "severe skeletal fluorosis"

Joyce Donohue---06/17/2009 09:45:21 AM---I think you changes do improve the clarity about what was done. However I still do not fully unders

From: Joyce Donohue/DC/USEPA/US

To: Jonathan Fleuchaus/DC/USEPA/US@EPA

Date: 06/17/2009 09:45 AM

Subject: Re: mclg to rfd

I think you changes do improve the clarity about what was done. However I still do not fully understand the following bullet:

Back-calculating a RfD-like value for age groups from the MCLG results in significantly higher RfD-like values for children

I though that the 8 mg/day that would result from an adult drinking 2L/ day was used for the calculation and not the 4 mg/day for a child drinking 1 L per day (the OW value for children) was used to obtain the RfD for all age groups. However, I have never fully understood what was done.

Can you add to the following as follows ... RfD-like value **for severe skeletal fluorosis**?

Relied on OW MCLG hazard analysis by back-calculating a RfD-like value from the MCLG

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Jonathan Fleuchaus---06/17/2009 09:28:43 AM---Joyce, I made a couple of changes to make clear OPP did not calculate a RfD for fluoride.

From: Jonathan Fleuchaus/DC/USEPA/US

To: Joyce Donohue/DC/USEPA/US@EPA

Cc: Angela Huskey/DC/USEPA/US@EPA, Wynne Miller/DC/USEPA/US@EPA

Date: 06/17/2009 09:28 AM

Subject: mclg to rfd

Joyce,

I made a couple of changes to make clear OPP did not calculate a RfD for fluoride.

First, I added some additional language to the prior slide:

- **OPP's Risk Assessment**
- Aggregate exposure to fluoride from food (the pesticides SF and cryolite), air, toothpaste, and water as required by FQPA
- Relied on OW MCLG hazard analysis by back-calculating a RfD-like value from the MCLG

Then, I amended the slide you commented on as follows:

- Protection of children
  - MCLG uses intra-species UF/SF of 2.5X
  - OPP removed the FQPA children's SF
  - Back-calculating a RfD-like value for age groups from the MCLG results in significantly higher RfD-like values for children
- Persons exposed to high, background levels of fluoride in drinking water

- OPP assumed 2 mg/L which OPP estimated to be the 99th percentile

Does this address your concerns?

Jon