Message

From: Walker, Stuart [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6907CF9284BF4BD5831517C27ECE9C53-SWALKE02]
Sent: 4/24/2020 6:20:09 PM
To: David Kappelman [Kappelman.David@epa.gov]
Subject: FW: [Non-DoD Source] FW: Navy RGs vs Res BPRGs Summary_Res Pathway Risk Comparisons (002).xlsx
Attachments: Short lived Decay evaluation for BDCC and BPRG.xlsx

Stuart Walker
Superfund Remedial program National Radiation Expert
Science Policy Branch
Assessment and Remediation Division
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From: Hays, David C Jr CIV USARMY CENWK (USA) <David.C.Hays@usace.army.mil>
Sent: Monday, April 20, 2020 1:07 PM
To: Rankins, Jonathan E CIV USARMY CEMVS (USA) <Jonathan.E.Rankins@usace.army.mil>; Praskins, Wayne <Praskins.Wayne@epa.gov>
Cc: Clements, Julie A CIV (USA) <Julie.A.Clements@usace.army.mil>; Walker, Stuart <Walker.Stuart@epa.gov>
Subject: RE: [Non-DoD Source] FW: Navy RGs vs Res BPRGs Summary_Res Pathway Risk Comparisons (002).xlsx

Just FYI: For shorter half lives compared to the exposure periods. The calculators not taking into account radioactive decay over the 25 years of worker exposure results in over estimate factors of 1.3 to 3.19 (without decay/with decay). The shorter the half life compared to the exposure duration the greater the difference.

I also looked at the 6 sources modeled in RESRADBLD and contributions of each to the total. Roughly, the floor is 27% of the total dose; 4 walls are 62%; and the ceiling is 10% of the totals for the short lived gamma emitting isotopes (Co-60, EU-152,154 and Cs-137). Thus modeling the wall will have a significant impact on total dose and risk.

The calculators still result in higher values than RESRADBLD even after I decayed the calculator results but the differences are less by the same decay factors 1.3 to 3.19. The dose differences without decay compared to RESRADBLD are roughly a factor 7 (range 1.8 to 9.7) and with decay considered a factor of 3 (range 1.4 to 4.2).

Biggest differences are with Risk differences without decay compared to RESRADBLD are roughly a factor 18 (range 4.6 to 24.4) and with decay considered a factor of 3 (range 3.5 to 11.5). So understanding the risk calcs are still key.

Dave

From: Hays, David C Jr CIV USARMY CENWK (USA)
Sent: Friday, April 17, 2020 11:36 AM
To: Rankins, Jonathan E CIV USARMY CEMVS (USA) <Jonathan.E.Rankins@usace.army.mil>; Praskins, Wayne <Praskins.Wayne@epa.gov>
Cc: Clements, Julie A CIV (USA) <Julie.A.Clements@usace.army.mil>; Walker, Stuart <Walker.Stuart@epa.gov>
Subject: RE: [Non-DoD Source] FW: Navy RGs vs Res BPRGs Summary_Res Pathway Risk Comparisons (002).xlsx

All, please see attached. The file titled "example…." Presents the BPRG for dusts. PLEASE see the notes discussions. The other 2 files are the outputs from the BPRG calculator and the individual tables as presented in the "example …" file.

Have a great weekend.
Dave

From: Rankins, Jonathan E CIV USARMY CEMVS (USA) <Jonathan.E.Rankins@usace.army.mil>
Sent: Friday, April 17, 2020 11:07 AM
To: Praskins, Wayne <Praskins.Wayne@epa.gov>; Hays, David C Jr CIV USARMY CENWK (USA) <David.C.Hays@usace.army.mil>
Cc: Clements, Julie A CIV (USA) <Julie.A.Clements@usace.army.mil>; Walker, Stuart <Walker.Stuart@epa.gov>
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Might have to factor in the difference in SFs , if applicable

Sent with BlackBerry Work
(www.blackberry.com)

From: Praskins, Wayne <Praskins.Wayne@epa.gov>
Date: Thursday, Apr 16, 2020, 11:00 PM
To: Hays, David C Jr CIV USARMY CENWK (USA) <David.C.Hays@usace.army.mil>
Cc: Rankins, Jonathan E CIV USARMY CEMVS (USA) <Jonathan.E.Rankins@usace.army.mil>, Clements, Julie A CIV (USA) <Julie.A.Clements@usace.army.mil>, Walker, Stuart <Walker.Stuart@epa.gov>
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Dave -

We had an action item from our call earlier today about you coming up with dust-only PRGs at the 1 x 10-4 risk level using the BPRG calculator. Can I get the values from the spreadsheet Jon shared in January (attached) by assuming a linear relationship between the RG and ingestion risk?

For example, would the dust only PRG for Ra-226 be: 100 dpm/cm2 x (1 x 10-4)/(2.7 x 10-4) = 37 dpm/cm2?

Wayne Praskins | Superfund Project Manager
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San Francisco, CA 94105
415-972-3181

-----Original Message-----
From: Rankins, Jonathan E CIV USARMY CEMVS (USA) <Jonathan.E.Rankins@usace.army.mil>
Sent: Friday, January 31, 2020 10:33 AM
To: Hays, David C Jr CIV USARMY CENWK (USA) <David.C.Hays@usace.army.mil>; Clements, Julie A CIV (USA) <Julie.A.Clements@usace.army.mil>; Praskins, Wayne <Praskins.Wayne@epa.gov>
Subject: Navy RGs vs Res BPRGs Summary_Res Pathway Risk Comparisons (002).xlsx

Just a summary table with all the pathway comparisons, adult and child.