

HLWYM HEmails

From: [REDACTED]
Sent: Tuesday, April 03, 2007 2:14 AM
To: James Winterle; Ronald Janetzke
Cc: [REDACTED]
Subject: A Quick Look - S-4 High Dose Realization

Ron,

For the 'usersupplieddiscrete' distribution below, I noticed in the tpameans.out file that the value listed was 0.0; instead of $(0)(0.8) + (7)(0.2) = 1.4m$.

Is this the mean value we want to have for the 'usersupplieddiscrete' distribution? (wouldn't 0.0 be more of a mode?)

Jim,

For the realization/subarea we examined during the S-4 presentation last week, I replicated that run for realization 165/subarea 3 and then made the following change:

Comparing files tpa.inp and ..\TPA.INP

***** ..\TPA.INP

2

0, 0.8

7, 0.2

**

***** tpa.inp

2

6.9999, 0.8

7, 0.2

*usersupplieddiscrete

*CHnvThickness_3SubArea[m]

*2

*0, 0.8

*7, 0.2

**

(i.e., I forced the CHnv thickness to be ~7 [it was 0.0 for that high dose realization])

I executed the TPA code again and found the PMD decreased from ~2.8 to 0.7 rem/yr (see below).

When running all 10 SAs, the PMD decreased from ~3.4 to 1.3 rem/yr. That is, the PMD for the 500 realization run would have been decreased by a factor of about 2.5 (from ~7.8 to 3.1 mrem/yr) and this execution (500 realizations, 10,000 yr, seed1) would have been consistent with the PMD from the other 1e4yr realizations that were plotted for the S-4 presentation.

This is a different sort of distribution than we have had in the past.

Rob

BELOW - from realization 165 and subarea 3 only

(i.e., ~7 m compared to 0 m for SA3 CHnv)

Comparing files tpa.out and ..\TPA.OUT

***** tpa.out

exec: Welcome to TPA Version 5.1betaT

Job started: Mon Apr 02 20:24:10 2007

***** ..\TPA.OUT

exec: Welcome to TPA Version 5.1betaT

Job started: Mon Apr 02 11:03:20 2007

***** tpa.out

Highest release rates from UZ

Tc99 8.2626E+01 [Ci/yr/SA] at 5.832E+03 yr

Ni59 6.2606E+00 [Ci/yr/SA] at 8.691E+03 yr

Ja243 3.9372E+00 [Ci/yr/SA] at 5.971E+03 yr

Cs135 3.1745E+00 [Ci/yr/SA] at 6.113E+03 yr

U234 4.8592E-01 [Ci/yr/SA] at 6.560E+03 yr

Se79 4.5481E-01 [Ci/yr/SA] at 5.832E+03 yr

exec: calling szft

***** ..\TPA.OUT

Highest release rates from UZ

Tc99 8.9939E+01 [Ci/yr/SA] at 5.832E+03 yr

Am243 5.2899E+01 [Ci/yr/SA] at 5.832E+03 yr

Ni59 1.5751E+01 [Ci/yr/SA] at 5.832E+03 yr

Ja243 1.5661E+01 [Ci/yr/SA] at 5.832E+03 yr

Cs135 4.0283E+00 [Ci/yr/SA] at 5.832E+03 yr

Am241 2.1626E+00 [Ci/yr/SA] at 5.832E+03 yr

exec: calling szft

***** tpa.out

Highest release rates from SZ

Tc99 5.4673E+00 [Ci/yr/SA] at 9.107E+03 yr

Ja243 2.6940E+00 [Ci/yr/SA] at 8.293E+03 yr

Jp239 1.8723E-01 [Ci/yr/SA] at 8.490E+03 yr

Ja241 9.7302E-02 [Ci/yr/SA] at 8.293E+03 yr

Jc245 9.2489E-02 [Ci/yr/SA] at 8.293E+03 yr

Jt230 2.7170E-02 [Ci/yr/SA] at 8.691E+03 yr

exec: calling dcagw

***** ..\TPA.OUT

Highest release rates from SZ

Ja243 1.0611E+01 [Ci/yr/SA] at 8.293E+03 yr

Tc99 5.4633E+00 [Ci/yr/SA] at 9.107E+03 yr

Jp239 7.0212E-01 [Ci/yr/SA] at 8.293E+03 yr

Ja241 3.7577E-01 [Ci/yr/SA] at 8.101E+03 yr

Jc245 3.5645E-01 [Ci/yr/SA] at 8.101E+03 yr

Jt230 1.0485E-01 [Ci/yr/SA] at 8.490E+03 yr

exec: calling dcagw

***** tpa.out

Highest annual dose GW pathway

Am243 6.0277E+02 [mrem/yr] at 8.293E+03 yr

Pu239 4.7974E+01 [mrem/yr] at 8.490E+03 yr

Cm245 2.0626E+01 [mrem/yr] at 8.293E+03 yr

Am241 2.0179E+01 [mrem/yr] at 8.293E+03 yr

Tc99 8.4190E+00 [mrem/yr] at 9.107E+03 yr

Th230 5.8420E+00 [mrem/yr] at 8.691E+03 yr
 At end of TPI, annual dose GW pathway
 Am243 2.4669E+02 [mrem/yr]
 Pu239 2.5492E+01 [mrem/yr]
 Tc99 8.2701E+00 [mrem/yr]
 Cm245 7.9742E+00 [mrem/yr]
 Am241 7.7057E+00 [mrem/yr]
 Th230 4.6754E+00 [mrem/yr]
 sum 3.0815E+02 [mrem/yr]

exec: end realizations

***** ..\TPA.OUT

Highest annual dose GW pathway
 Am243 2.3741E+03 [mrem/yr] at 8.293E+03 yr
 Pu239 1.7991E+02 [mrem/yr] at 8.293E+03 yr
 Cm245 7.9494E+01 [mrem/yr] at 8.101E+03 yr
 Am241 7.7928E+01 [mrem/yr] at 8.101E+03 yr
 Th230 2.2545E+01 [mrem/yr] at 8.490E+03 yr
 Pu240 1.6857E+01 [mrem/yr] at 1.000E+04 yr

At end of TPI, annual dose GW pathway

Am243 8.9802E+02 [mrem/yr]
 Pu239 9.1792E+01 [mrem/yr]
 Cm245 2.9023E+01 [mrem/yr]
 Am241 2.7980E+01 [mrem/yr]
 Th230 1.7672E+01 [mrem/yr]
 Pu240 1.6857E+01 [mrem/yr]
 sum 1.0963E+03 [mrem/yr]

exec: end realizations

***** tpa.out

exec: Peak Mean Dose is 7.12590E-01 rem/yr at 8293.3 yr, based on 1 realizations.

***** ..\TPA.OUT

exec: Peak Mean Dose is 2.76870E+00 rem/yr at 8293.3 yr, based on 1 realizations.

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Hearing Identifier: HLW_YuccaMountain_Hold_EX
Email Number: 448

Mail Envelope Properties (d52.5ed2bb8.33434a9b)

Subject: A Quick Look - S-4 High Dose Realization
Sent Date: 4/3/2007 2:13:47 AM
Received Date: 4/3/2007 2:14:22 AM
From: [REDACTED]

Created By: [REDACTED]

Recipients:

[REDACTED]
Tracking Status: None
"James Winterle" <jwinterle@cnwra.swri.edu>
Tracking Status: None
"Ronald Janetzke" <rjanetzke@cnwra.swri.edu>
Tracking Status: None

Post Office: aol.com

Files	Size	Date & Time
MESSAGE	5770	4/3/2007 2:14:22 AM

Options
Priority: Standard
Return Notification: No
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Sensitivity: Normal
Expiration Date:
Recipients Received: