Proposed CPG Agenda
17-mile RI/FS Modeling Meeting

Morning

I. Introductions/Opening Remarks

II. COPCs for which the CFT model will be calibrated (EPA Comment 372)

Chemical	K_{OW}*	Chemical	K_{OW}
Tetra-PCB	6.00	1,2,3,7,8-PeCDD	7.37
3,3',4,4'-Tetra-PCB (BZ#77)	6.36	3,3',4,4',5,5'-Hexa-PCB (BZ#169)	7.42
3,4,4',5-Tetra-PCB (BZ#81)	6.36	2,3,3',4,4',5,5'-Hepta-PCB (BZ#189)	7.71
2,3,7,8-TCDF	6.54	1,2,3,7,8,9-HxCDF	7.95
2,3,7,8-TCDD	6.65	1,2,3,6,7,8-HxCDF	7.95
2,3,3',4,4'-Penta-PCB (BZ#105)	6.65	2,3,4,6,7,8-HxCDF	7.96
2,3,4,4',5-Penta-PCB (BZ#114)	6.65	1,2,3,4,7,8-HxCDF	7.96
2,3',4,4',5-Penta-PCB (BZ#118)	6.74	1,2,3,6,7,8-HxCDD	8.09
2',3,4,4',5-Penta-PCB (BZ#123)	6.74	1,2,3,7,8,9-HxCDD	8.10
3,3',4,4',5-Penta-PCB (BZ#126)	6.89	1,2,3,4,7,8-HxCDD	8.12
2,3,3',4,4',5-Hexa-PCB (BZ#156)	7.18	1,2,3,4,7,8,9-HpCDF	8.67
2,3,3',4,4',5'-Hexa-PCB (BZ#157)	7.18	1,2,3,4,6,7,8-HpCDF	8.67
2,3,4,7,8-PeCDF	7.23	1,2,3,4,6,7,8-HpCDD	8.82
1,2,3,7,8-PeCDF	7.25	OCDF	9.39
2,3',4,4',5,5'-Hexa-PCB (BZ#167)	7.27	OCDD	9.55

*Log K_{OW} values from the FFS model (LBG 2014).

III. CFT model partitioning to various carbon phases (EPA Revisions 3b, 4d)
   a. Proposed approach to approximate desorption kinetics

IV. CFT model simulation of a fluff layer
   a. Consistency between ST and CFT models (EPA Revision 3d)
   b. Parameterization of transfer with parent bed (EPA Revisions 3c, 3e)

Afternoon

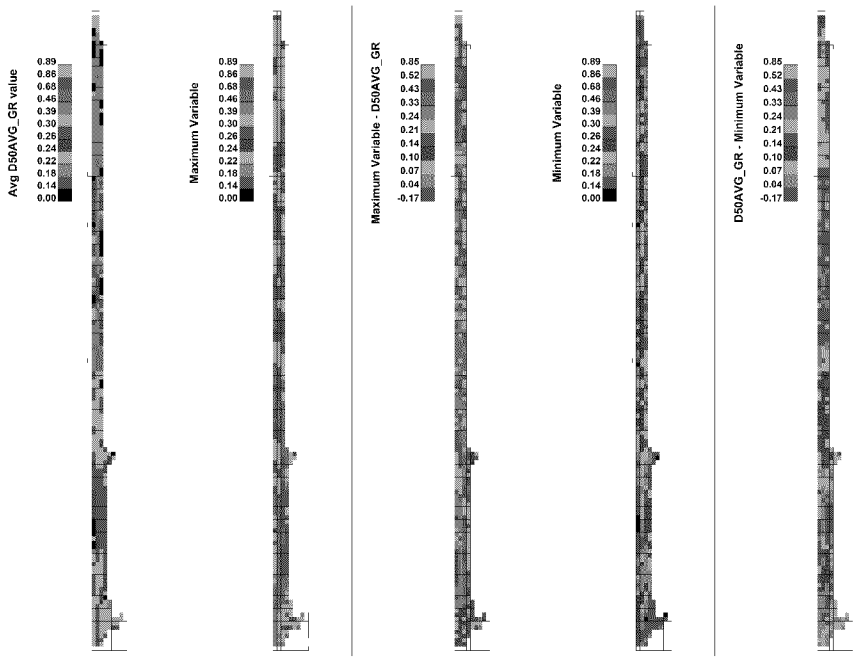
V. Bulk density impact on computed CFT model concentrations (EPA Revision 3f)

cpg_dens_issue_a.pdf – each page in this file shows the model layer that was initially layer 10 over a 10 day period 8/27 – 9/6/2011. Although the volume of the layer and the mass of TCDD may not change (panel 3), the mass of solids in the layer changes (panel 2) resulting in large changes in dry weight TCDD concentrations (panel 4).

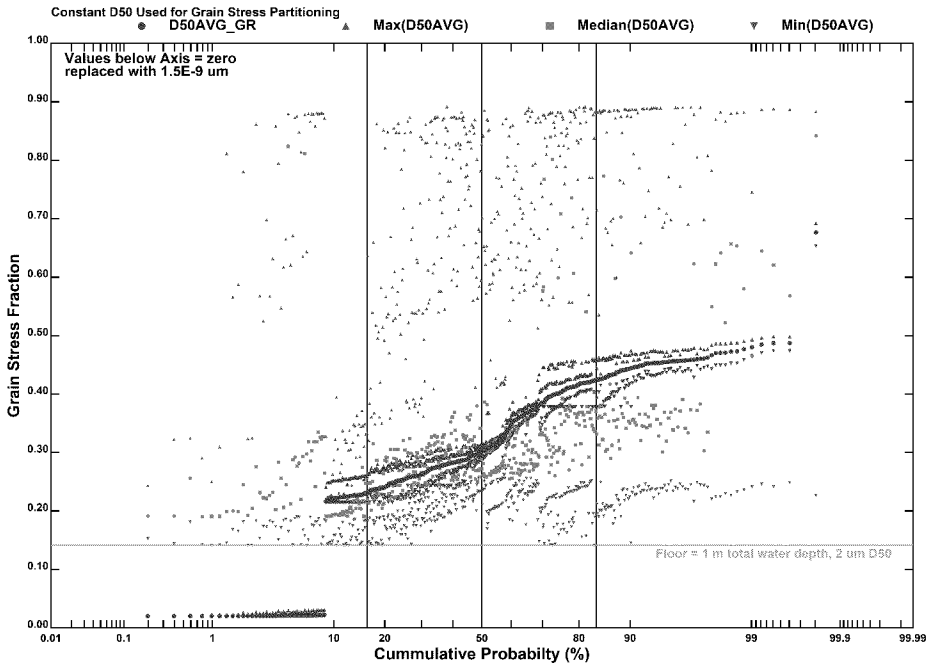
VI. Rate of recovery in depositional areas (possibility of added carbon to sands)

VII. ST model grain stress partitioning (EPA Revision 1b)

Some cells have the initial D50 as zero resulting in a very small fraction of the total shear stress being applied to the grains (black grid cells).



Others have large changes in D50 not reflected in the partitioning. The values used (green points below) vary with changes in water depth but not changes in D50. If D50 were allowed to vary in the grain stress partitioning would vary from the red points up to the blue points. (Note all points are plotted based upon their D50AVG_GR ranking).



VIII.ST model decoupled mode – issue of changing bathymetry (EPA Revision 1a)

IX. OC model
    a. Comparison to data (EPA Revision 2a)
    b. Mass balance (EPA Revision 2b)

X. Representation of FS alternatives in models (Revisions 1c, 2c, 3g)