From: Dykema, Linda D. (DHHS)
Sent: Thursday, October 29, 2015 8:40 AM
To: Grijalva, Nancy (DHHS);Eisner, Jennifer (DHHS);Wurfel, Brad (DEQ);Krisztian, George (DEQ);Sygo, Jim (DEQ);Wyant, Dan (DEQ);Minicuci, Angela (DHHS);Lyon, Nick (DHHS);Lasher, Geralyn (DHHS);Hertel, Elizabeth (DHHS)
Cc: Moran, Susan (DHHS);Wells, Eden (DHHS);Miller, Corinne (DHHS)
Subject: IEUBK Lead Model
Attachments: draft deliberative TSG Subcommittee drinking water lead levels 10-16-2015.pdf

All,

Attached is the technical justification that explains the EPA's Integrated Exposure Uptake Biokinetic (IEUBK) Model in general as well as the specific inputs and assumptions used to model risks for lead levels in Flint school's drinking water.

Per our discussion yesterday, please note that the model does not include inputs specifically for the paint chip ingestion. What we can and will do is run the model using dust lead levels from a Michigan-specific study that evaluated lead concentrations in the dust inside houses of varying age. As would be expected, the dust in older homes contains more lead due to the use of lead-based paint prior to 1978. However, the effect of increasing dust-lead levels will be similar to that in the graphs illustrating the effect of increasing soil levels because the model default assumes that the inside dust-lead concentration is a fraction of that of soil unless more specific data are entered.

I wanted to share the technical justification with you now so that you could see the level of scientific detail represented in the modeled results. Please also note that Michigan-specific values (e.g., air and soil concentrations) were used if available, rather than the national defaults. Dr. Jennifer Gray, the HHS toxicologist with the most expertise in this model, is currently away from the office. When she returns, Dr. Gray could provide a technical briefing if you'd like.

Linda