From:	Smith, Judy
To:	Modie Jonathan N; cmiles@pps.net; FLYNT Jennifer; Julie SULLIVAN-SPRINGHETTI; DANAB.Marcia@deq.state.or.us; Cowie Robb; Sara.Hottman@portlandoregon.gov; WICKSTROM Susan D; "ysands@fs.fed.us"
Subject:	EPA Review RE: URGENT JIC REVIEW: Materials for Wednesday Release
Date:	Monday, March 07, 2016 3:56:00 PM
Attachments:	Language to Accompany Soil Screening Value Table_To JIC 3 4 2016_jrs.docx

Hi Jonathan –

Here are EPA's technical comments for Dave Farrar on the materials you shared earlier today. Thank you for the opportunity to review. Judy

Harry Craig, Marc Stifelman, and Julie Wroble of EPA Region 10 reviewed the Soil Sampling Results, Assessment of Health Risks, and Gardening Recommendations documents provided by OHA. We had a few clarifying comments. Note that EPA didn't review the soil sampling plan; therefore, our comments are based on reporting of results and data interpretation.

1) EPA suggests that OHA NOT discount As risks with the 10% absorption assumption because of potential for highly bioavailable arsenic trioxide. 10% is a very low, nonconservative, assumption of As absorption. EPA generally assumes 60% (based on an upper percentile of measured bioavailability). Arsenic bioavailability varies with the form of arsenic. Bullseye used arsenic trioxide which is has an oral absorption of 100% relative to an IV dose. See http://www.ncbi.nlm.nih.gov/pubmed/12451429
2) Some of the OHA documents refer to the "Average" and the 90% UCI as the same. This is incorrect. I would suggest they use the terms "Mean" or the" 90% UCI on the Mean" consistently in their documents.
3) I would suggest they use more graphics such as Bar Charts in the OHA documents to explain risks. Good graphics go a long ways toward explaining risks to the public in a clear and concise manner.
4) Only 4 samples stood out to me in this full data set, and those were 4 arsenic samples at the CCLC Day Care, which are slightly elevated above background, which are highlighted in yellow in the attached spreadsheet. I think it would be useful to see where these samples were taken in relation to each other, I don't have a map of the sampling locations.
5) OHA's health screening for the daycare sampled assumed 5 days per week for 5 years. However, if a child lives in the area near the daycare, they could have similar exposures on days they aren't at the daycare and for longer. This could be an uncertainty in the analysis that could bias conclusions and should possibly be addressed.
6) Define the basis for the DEQ residential screening value:
   - Chronic exposure for 30 years
   - Hazard Quotient of 1
   - Incremental Cancer Risk of 1 in a million
   - Add number of samples to table
   - In the explanation, you say "consume" 200 mg of soil per day. As this is incidental ingestion, you may want to state that more clearly.

For additional information, contact: **Julie Wroble,** Toxicologist, USEPA Region 10, 1200 6th Ave.,

OEA-140, Seattle, WA 98101, 206-553-1079, wroble.julie@epa.gov

I also did a super quick and dirty review of the language to accompany the soil screening tables. I think the main points and conclusions were lost in the dense text. However, I may have accidently deleted an important nuance or two as I was redlining. Hopefully it's helpful anyway.

Judy

From: Modie Jonathan N [mailto:jonathan.n.modie@state.or.us]
Sent: Monday, March 07, 2016 10:25 AM
To: cmiles@pps.net; FLYNT Jennifer <jennifer.flynt@state.or.us>; Julie SULLIVAN-SPRINGHETTI <julie.sullivan-springhetti@multco.us>; DANAB.Marcia@deq.state.or.us <marcia.danab@state.or.us>; Cowie Robb <robb.cowie@state.or.us>; Sara.Hottman@portlandoregon.gov; Smith, Judy <Smith.Judy@epa.gov>; WICKSTROM Susan D <susan.d.wickstrom@state.or.us>; 'ysands@fs.fed.us' <ysands@fs.fed.us>
Subject: URGENT JIC REVIEW: Materials for Wednesday Release

Hi everyone. Attached are documents that Dave Farrer would like you and your respective technical staffs to review (probably won't apply much to you, Sara and Christine). Please let me know by COB today if there are any changes. A lot, I know. Apologies for the volume. Thanks.

Jonathan

From: Farrer David G
Sent: Monday, March 07, 2016 9:01 AM
To: Modie Jonathan N <JONATHAN.N.MODIE@dhsoha.state.or.us>
Cc: SIFUENTES Julie <Julie.SIFUENTES@dhsoha.state.or.us>
Subject: Materials for Wednesday Release

Jonathan,

These things were coming in to you piece meal over the course of Friday, and I thought it might be easier for you to have them all in one email. This is ready to go through the JIC and to leadership (Lillian, Governor's office, EPA, etc.).

I'm hoping that JIC representatives can run this stuff by their own technical folks as part of the review process and that feedback can be funneled back through the JIC. Here is a summary of the attachments and level of review from technical folks we are looking for:

- "Language to Accompany Soil Screening Value Table" "Table of Screening Values for soil", "OHA Assessment of Health Risk from Exposure to Soils Around Bullseye Glass", and Tables for Bullseye Soil web" need a good technical review by folks in the interagency group as well as readability review by communications folks.
- "OHA Gardening Technical Memo", "OHA Interpretating Yard and Garden Soil Testing Results", and "Gardeningfactsheet supplement ALLEDTS" – are mainly an FYI for technical

folks, but the focus should be the communications review on these.

The “OHA Gardening Technical Memo” is intended as a technical memo, so there is no need for it to be at a certain grade level, but we do want to post it on our website for people who are interested in the details. The “Gardeningfactsheet supplement” is the more general public facing message on gardening, for which the technical memo is the scientific basis.