

Chemical Exposures and Chemical Mixtures Working Groups Joint Meeting
Sunday, May 1, 2011
7:30–9:00 pm
Yellow Topaz

CEWG: Doug Craig

1. Review of changes to the TEEL methodology
 - a. DOE-41 directive following Expert Review Group (ERG) recommendations
 - b. Most to be implemented for PACs Rev 27
 - c. Target publication date to be determined
2. Issues to be resolved
 - a. TEEL rounding rules – Jayne-Anne Bond
 - i. Currently based on TLVs, PELs, RELs
 - ii. ERG recommendation: use “normal, accepted specific rule”
 - iii. DOE-HDBK-1014/1-82 rule for decimalization of fractions
 - b. Exposure Tim Adjustment – Doug Craig
 - i. ERG recommendation use ten Berge equation, $C^n \times t = K$. where $n = 1$ when extrapolation from shorter times to 60 minutes, and $n = 3$ when extrapolation from longer times to 60 minutes for “Y” chemicals (toxicity concentration dependent) and $n = 1$ for “N” chemicals (toxicity dose dependent only)
 - c. Routes of Exposure hierarchy – Po-Yung Lu
 - i. Restricted to inhalation, oral, dermal, intravenous, intraperitoneal
 - ii. Question of whether to ignore data for other routes, particularly subcutaneous and intratracheal, when NO OTHER data exists
 - d. Species hierarchy – Po Yung Lu
 - i. ERG recommendation human, monkey, dog, rat, mouse, rabbit, guinea pig, cat, and pig
 - ii. Question of whether to ignore data for other species, e.g., hamster, when NO OTHER data exists.
3. Other issues

Chemical Exposures and Chemical Mixtures Working Groups Joint Meeting
Sunday, May 1, 2011
7:30–9:00 pm
Yellow Topaz

CMWG: Rocky Petrocchi

- Improvements to the HCN database—Brief overview of activities this past year
 - HCNs for about 1000 chemicals were updated in 2009 by PhBouslaugh (PNNL intern)
 - 15% QA performed
 - Included in the latest Rev 26 CMM Workbook
 - Two-thirds of CMM Workbook now has undated HCNs
 - HCNs for about another 1000 chemicals were updated in 2010 by Hua He (PNNL intern)
 - 15% QA yet to be performed
 - Will be included in the next Rev 27 of the CMM Workbook.
 - CMM Rev 27 will have all chemicals with updated HCNs
- Further improvements to the HCN database
 - Proposal to take another look at those chemicals with only HCN 4.00 (general acute effects) and HCN 3.00 (general chronic effects) assigned
 - These HCNs are reserved for those chemicals that have no useful specific toxicity data
 - HCNs 4.00 & 3.00 produce extremely conservative results since they are added to EVERY target-organ bin
 - This effort will look for some basis to assign specific-toxicity HCNs to replace the 4.00 & 3.00 HCNs
 - The resulting specific-toxicity HCNs will make analysis with these chemicals less overly conservative and more realistic
- Coordination of CMM-HCN Database with PAC Database
 - Each CMM Workbook revision needs all of the new PACs imported.
 - All CASRN changes, deleted chemicals, and combined chemicals in PAC database need to be incorporated into CMM-HCN database to avoid mismatches when importing new PAC data
 - How best to do this?
 - Possible Simple Solution: See file of these changes produced by ATL in response to a user request
- Bioagent HCNs
 - Currently, no bioagents (~10) have HCNs assigned
 - TAG Open Question: Should HCN development for bioagents be different (i.e., more in-depth) than HCN development for all other chemicals?
 - Open action item from previous TAG meeting
 - How best to resolve this question and proceed with bioagent HCN development?
- Two new PNNL Interns
 - One to help with CMM-HCN program (awaiting funding decision)
 - Another (funded through NSF STAR program) to help with further CMM Wizard development
- CMM Wizard
 - Brief mention of Jeremy Rishel's presentation (presenting for Xiao-Ying Yu) during Monday's SCAPA meeting on the CMM Wizard