



Emergency Management Issues (EMI)  
Subcommittee on Consequence Assessment  
and Protective Actions (SCAPA)  
Chemical Exposures Working Group (CEWG)  
Chemical Mixtures Working Group (CMWG)

## Highlights

### MEETING OF THE CHEMICAL EXPOSURES AND CHEMICAL MIXTURES WORKING GROUPS

TUESDAY May 8, 2007; 12:00 PM Central Daylight Time

#### Participants:

Doug Craig, ATL International  
Wayne Davis, WSMS  
Dave Freshwater, NA-41  
Cliff Glantz, PNNL  
Jim Jamison, SAIC  
Po-Yung Lu, ORNL  
Greg Martin, SAIC  
Carl Mazzola, Shaw Environmental  
Mark Miller, NOAA Hazmat  
John Nasstrom, NARAC  
Rocky Petrocchi, WGI  
Richard Thomas, Intercet  
Tom Tuccinardi, Excalibur  
Michele Wolfgram, WSMS Mid-America

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#### I. Roll Call

Cliff Glantz conducted a roll call and acknowledged that fourteen (14) individuals were present.

#### II. Discussion

Doug Craig, CEWG and CMWG Chairman, led the discussion which included the following topics:

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1. **TEELs Revision 22:** Doug described the new Protective Action Criteria (PAC) listing that includes AEGLs, ERPGs, and TEELs, which will be unveiled with TEELs Revision 22. 365 new chemicals were added to the Revision 21 TEELs to increase the total to 3,310 chemicals. Doug indicated that the Quality Assurance (QA) review by Po-Yung Lu was very helpful and worthwhile. The TEELs Revision 22 database was provided to Dan Marsick, HS-21 on April 15, 2007 and will be provided to Vern McDougall, ATL, for updating the TEELs Searchable Database. Doug indicated that the macro revisions decreased the calculation time on the Excel spreadsheets, which prevented the Excel capacity from being exceeded as we added more chemicals. The database continues to be populated with a "Source of PACs" column to assist the user in identifying the data selected to derive the PAC values for each chemical.
2. **SQA Process:** Doug mentioned that the present Software Quality Assurance (SQA) process seems a bit informal with no version numbering even attempted. It was determined that all future macro changes will require some level of documentation. Cliff Glantz stated that some type of configuration management plan will be required to maintain control and continuity of the software. Doug will initiate an action to flesh out a configuration management plan for the PAC and Chemical Mixtures Methodology (CMM) software.
3. **Source of PACs:** Doug mentioned that about half of the chemicals have been backfitted with "Source of PACs" information and work will continue to complete this for all chemicals. Doug stated that this was a worthy effort. Carl Mazzola indicated that he has been asked by the MOX Project to explore whether a development date for each chemical can also be established so that it can be determined when the PAC was last established. The MOX Project licensing position is based on TEELs Revision 18. Doug indicated that this did not appear to be very difficult to do and could be output under a "first developed/latest review" column. The consensus of the working group members was to have columns in the PAC/TEEL data set that state when values for a PAC were modified and when the existing values were last reviewed and found to be acceptable.

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4. **AEGL/ERPG Process:** Mark Miller stated that a Spanish user in the ALOHA user community had some difficulty with a change of value from an interim to final AEGL for uranium hexafluoride. Mark wanted to know whether using interim AEGLs in the PAC database would result in other future issues of this nature. Doug indicated that the uranium hexafluoride was an isolated case and that he did not expect future occurrences of this nature relative to interim and final AEGL values.
5. **HCNs:** Doug reported that HCNs have been developed for 160 of the TEEL Revision 20 chemicals, for a total of 2,394 chemicals with HCNs. This leaves 916 chemicals requiring HCNs from TEEL Revisions 20-22. Rocky estimated that it would take him about one hour to develop each HCN and about a year of time to work off the backlog. This estimate does not include the additional work needed on backfitting historical HCNs to adjust for chronic to acute effect in one of the target organs. The amount of time needed to accomplish that effort was not discussed. NA-41 has suggested that Po-Yung Lu, and perhaps a summer intern, assist Rocky in this catch-up effort. A procedure for developing HCNs also needs to be developed. Cliff opined that at the Sunday program meeting with NA-41, the Office of Emergency Management (OEM) expressed a concern that SCAPA products, in general, were not getting completed in a timely manner and wants a new emphasis on more efficient production to close the gap,
6. **Automated CMM Workbook:** Doug stated that the workbook program was updated and initial tests have been conducted. Doug recommends more testing by TEELs Advisory Group (TAG) members and perhaps members of the EMI SIG community. A beta-version of the workbook was posted by Cliff Glantz on the web site. Cliff also improved the User's Guide and a draft of it is on the web site.
7. **Succession Planning:** Cliff mentioned that at the Sunday meeting with NA-41, TAG was to be directed to develop a long-term succession plan for the CEWG/CMWG programs. The plan needs to take into account resource requirements.
8. **NARAC Interface:** John Nasstrom mentioned that the NARAC program needs the user guide and written documentation to help implement the use of PACs in the code. He emphasized that the method was more important than just the values.
9. **ALOHA Interface:** Mark Miller stated that the PACs have been implemented in CAMEO/ALOHA, a code which receives 40,000 downloads per month. At this time,



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ALOHA can address about 6,000 pure chemicals, but NOAA is undertaking an effort to reduce the number of chemicals to those that are more commonly used. Even though, NOAA will be requesting TEEL development for several chemicals in the future and will make its request through the "Request a TEEL" menu item on the SCAPA web page.

10. **TEEL Comparison to ERPGs:** Richard Thomas indicated that he has compared some TEELs to ERPGs and the TEELs tended to be somewhat conservative.

**III. Next SCAPA CEWG/CMWG Meeting**

Cliff Glantz indicated that the next SCAPA CEWG/CMWG teleconference has not yet been scheduled. The next SCAPA CEWG/CMWG meeting is scheduled for **Tuesday, May 6, 2008** during the next EMI-SIG meeting in Washington, DC.

**IV. Adjournment**

The meeting was adjourned at **1:00 p.m. MDT**. Cliff and Carl thanked everyone for their time and their contributions.