
Data Activity Group

Report for the CCL Work Group

Plenary Meeting

May 12, 2003

The Data Activity Group has had three conference calls since the February plenary meeting.

Participants:

- ❑ Rick Becker
- ❑ Wendy Heiger-Bernays
- ❑ Jeff Griffiths
- ❑ Buck Henderson
- ❑ Nancy Kim
- ❑ Benson Kirkman
- ❑ Gary Lynch
- ❑ Ken Merry
- ❑ Graciela Ramirez-Toro
- ❑ Mike Dourson (Methods Group liaison)
- ❑ Alan Elzerman (Methods Group liaison)
- ❑ Tom Carpenter, Yvette Selby, and other EPA staff
- ❑ Jo Anne Shatkin and other Cadmus staff
- ❑ Steve Via, AWWA
- ❑ Jeff Rosen and Dave Drain, Perot Systems Gov't Services
- ❑ Amy Kyle, UC-Berkeley
- ❑ Facilitators: Doug Owen (Malcolm Pirnie) and Sara Litke (RESOLVE)

At the March 27-28 Meeting

The CCL Work Group (plenary) reached consensus on a general approach for building a universe of contaminants for the CCL process.

The approach is presented in the document “Building the CCL Universe.”

“Building the CCL Universe”

❖ Inclusionary Principles

- ❑ Those contaminants (chemicals and microbes) which have demonstrated or potential occurrence in drinking water
- ❑ Those contaminants which have demonstrated or potential adverse health effects

“Building the CCL Universe”

- ❖ Process for Creating/Updating the Universe
 - ❑ Construction of the CCL Universe Database for Known Contaminants
 - ❑ Surveillance Process for New and Emerging Contaminants
 - ❑ Nomination and Evaluation Process for New and Emerging Contaminants

SDWA also provides an expedited process for regulatory determination

Continuing Discussion – Proposed Guidelines

- ❖ Include all relevant data from multiple sources
- ❖ Data sources may be screened to include only relevant information (e.g., ergonomic data in OSHA will not be included)
- ❖ Include data for contaminants that have a reasonable pathway to drinking water (e.g., contaminants in sediment)
- ❖ May be necessary to use surrogate information

Under Exploration: Four-Stage Process

1. Compile the most relevant data sources on contaminants with known or potential occurrence in drinking water or known or potential health effects
2. Compile less directly relevant data sources
3. Use additional data sources to fill data gaps associated with Stages 1 and 2
4. Use surrogates to fill important information gaps

Stage 1 – Compile most relevant sources

- Some data sources would be used for lists of contaminants; others would also provide data elements
- Examples of possible data sources
 - National Contaminant Occurrence Database (NCOD)
 - High Production Volume (HPV) Chemical Lists
 - Toxics Release Inventory (TRI)
 - WHO Drinking Water Quality Guidelines
 - International Agency for Research on Cancer (IARC) lists of carcinogens
 - FDA's Generally Regarded as Safe (GRAS) notices
 - Integrated Risk Information Systems (IRIS)

Stage 2 – Compile less directly relevant sources

- Some data sources would be used for lists of contaminants; others would also provide data elements
- EPA would filter relevant information from the data sources (e.g., ergonomic hazard info from OSHA would not be included)
- Examples of possible data sources
 - National Sediment Inventory
 - OSHA work place hazard information
 - Data sources on ecological endpoints, if judged relevant

Stage 3 – Search Supplementary Data Sources

- Data sources that are not directly relevant to the occurrence and health effects principles would be used to provide data elements and fill data gaps, NOT to add contaminants to the Universe List.
- Possible example of supplementing data source:
 - The High Production Volume Chemical Lists provide a list of contaminants for the Universe List in Stage 1. In Stage 3, the Chemical Abstract Services (CAS) database could be used to provide solubility data for those contaminants.

Stage 4 – Use Surrogates to Fill Important Information Gaps

- Data gaps will remain after the first three stages. Appropriate surrogates may need to be used to “model” or “estimate” information.
- Possible example of surrogate information:
 - Use estimated water solubility from EPA’s Office for Prevention, Pesticides and Toxic Substances (OPPTS) QSAR modeling
 - Use estimate of microbial pathogenicity from VFAR approach (if available)

Continuing Discussion – Exploratory Iterative Approach

- See Flip Chart

Next Steps – Evaluate/Elaborate Exploratory Approach

- EPA has begun to compile an example database for chemicals for use in exploring proposed screening methods.
- The effort can also provide insights on the draft approach for building the CCL Universe.

Next Steps – Evaluate/Elaborate Exploratory Approach (cont.)

- 23 data sources selected – 3 lists, 20 sources with data elements.
 - Selected for 1) ease in gathering and downloading and 2) relevance and reliability
- Data have been compiled.
- EPA is examining database to determine what contaminants the different types of selected data sources capture and what data elements they include.

Some Issues for Work Group Consideration

- How do we assess the adequacy of the CCL Universe?
 - What data elements should EPA look at first?
 - Is there a “floor” for data quality?
 - Which sources are most reliable and should be looked at first for redundant information?
 - How should data gaps be filled?