Toxicology Assessors Breakout Session
Assessment Issues Report

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Canadian Association for Environmental
Analytical Laboratories (CAEAL)

Purpose of Session

- An opportunity to discuss assessment issues raised from toxicology assessments during the previous year (2002) (and others?)

- To reach consensus on these issues, in order to improve the consistency of CAEAL assessments of toxicology laboratories

Aeration Rate Measurement

- Issue:
  - Consistency in the application of aeration rate measurement/calibration requirement in the Environment Canada Rainbow Trout test method
- Consensus reached:
  - Check for the lab's procedure for implementing this
  - Check for documentary evidence that it occurs regularly (e.g., on the bench sheet)
  - Ask for demonstration by analyst, if time permits

Stringency of the monitoring requirement for Chlorine

- Issue:
  - the Environment Canada Rainbow Trout acute test method requires a stringent (target) chlorine level of <0.002 mg/L chlorine to be achieved; this is too stringent, and not achievable by most labs
- Consensus reached:
  - A level of <0.01 mg/L chlorine was deemed to be the lowest practicable level and satisfactory for our purposes

Measuring and Reporting of Control Fish Weights and Lengths

- Issue:
  - Some laboratories appear to be measuring and weighing control fish from only one batch and reporting these data with each batch tested during that week, for

example, rather than for each control batch
  - Some are also ‘sharing’ controls among tests
- Consensus reached:
  - Ensure that measuring and weighing of control fish is done and reported for each test; this is an absolute MUST requirement

Acceptable Methods to be Assessed

- **Issue:**
  - Size and content of the list of acceptable standardized toxicity test methods
  - Which tests can be assessed, and should there be any limits placed on the size of this list?
- **Consensus reached:**
  - **assessors on the team do not need to have personal experience with each test (although it is preferable)**
  - **they can go by a checklist, create a checklist where one doesn’t exist, or rely on their toxicological expertise and general principles**
  - **also, reference methods should at least be a regulatory method, or published in a recognized, peer-reviewed publication**

Opinions and interpretations

- **Issue:**
  - The rating guide cites "forensic testing” when dealing with opinions and interpretations.
  - Do we assess opinions and interpretations when we are auditing for toxicology?
- **Consensus reached:**
  - Yes, as required.

Different procedures, Same appendix

- **Issue:**
  - Labs often seek accreditation for an Appendix that refers to several different (but similar) test methods (e.g., Environment Canada, U.S. EPA, ASTM, OECD, etc.)
  - e.g., earthworm, amphipod
- **Consensus reached:**
  - separate reference methods and corresponding procedures (SOPs) should require separate appendices (such as has been required in microbiology)

Communication regarding assessment issues

- We agreed to communicate regarding assessment issues between these sessions through the Advisory Panel toxicology assessor representative (Guy Gilron), and use e-mail to reach consensus, and subsequently provide CAEAL with these viewpoints.

Announcement

Next Toxicology Assessor Training Session:

- Timing: (being scheduled for) January/February 2004
- Location: Environment Canada, Environmental Technology Centre, Ottawa, Ontario
- Agenda
  - General review of Toxicology Assessment issues
  - Presentation of updates, checklists (e.g., NEW rainbow trout and *Daphnia* (2000) revisions), any new test methods that have been proposed
  - Focus of Session: Soil Toxicity Testing
    - Soil Invertebrates (earthworm, springtails)
    - Terrestrial Plants (various species)
  - This will include ‘hands-on’ demonstrations