TOXICS ADVISORY COMMITTEE
June 9, 2004

A meeting of the Toxics Advisory Committee was held at the Academy of Natural Sciences, in Philadelphia, PA. Members or alternates present were:

Delaware
Rick Greene

Pennsylvania
James Newbold

Environmental / Watershed
Mary Ellen Noble
Dr. Anthony Aufdenkampe

Industry
Larry Sandeen

Academia
Dr. David Velinsky

Public Health Interest
Dr. Charles Shorten

New Jersey
Not represented

Municipal
Dennis Blair

Agriculture
Not represented

New York
Not represented

Resources
Not represented

U.S. EPA
Denise Hakowski

Delaware River Basin Commission
Carol Collier
Dr. Thomas Fikslin
Greg Cavallo
Dr. Ron MacGillivray
Jonathan Zangwill
John Yagecic

Delaware Estuary Program
Peter Evans

Other Attendees
Tom Starosta, PADEP
Bruce Aptowicz, Philadelphia Water Dept.
Dr. James Baker, Academy of Natural Sciences
David Piller, Exelon Power
Dr. Jeff Wetherington, DuPont
Tom Healy, Philadelphia Water Dept.
Roy Romano, Philadelphia Water Dept.
Tom Harlukowicz, PSEG
Bart Ruiter, DuPont

I. Recommendations & Agreements

No recommendations or agreements were made.

II. Call to Order

Meeting was called to order by Mr. Sandeen, Chair of the Toxics Advisory Committee, at 9:40 am.

III. Meeting Welcome

Dr. James Baker welcomed the TAC the Academy of Natural Sciences and expressed support for the TAC's work.

IV. Meeting Minutes

The TAC reviewed the minutes from the March 31, 2004 meeting. Dr. Aufdenkampe asked about the status of the Basis and Background document for the proposed changes to the water quality regulations mentioned in the March minutes. Dr. Fikslin responded that the Basis and Background document had been targeted for mid June, but was behind schedule. Mr. Blair made a motion to approve the minutes. Dr. Aufdenkampe seconded the motion and the motion carried unanimously.

V. DELEP Update and Funding Opportunity

Mr. Evans reviewed recent developments in the Delaware Estuary Program including:

- At the previous TAC meeting, the TAC prioritized support for four grant proposals to DELEP. These proposals, in order of preference were as follows:
    1. Chemical pollution histories in the tidal freshwater Delaware Estuary (Dr. Velinsky);
    2. Assessing flame retardant contamination in the Delaware River Estuary using American eels (Dr. Ashley);
    3. Survey for analysis of estrogenic compounds in ambient waters of the tidal Delaware River (Mr. Santoro);
    4. Insertion of automatic monitors and SODAR transmitters onto 2 Delaware Bay Lighthouses (Mr. Santoro);
- DELEP had agreed to fully fund the flame retardants project ($5K) and to provide initial funding for the chemical pollution histories project ($5K).
- DELEP is still awaiting guidance from EPA on the FY05 budget;
- A new Estuary Monitoring Report is being drafted. That report will be submitted to the Monitoring Advisory Committee for an initial review. Mr. Evans asked for assistance in reviewing the Monitoring Report. DELEP is considering sponsoring an event geared toward the scientific community and would provide an outline of the monitoring report at this event.
- Mr. Evans indicated that he would be leaving his position as DELEP Director in August. TAC members expressed their appreciation for Mr. Evans' work and accomplishments during his term as director, and wished him well.
- DELEP requested that the TAC provide regular reports on recent activities and developments at Estuary Program meetings.
- The group discussed assembling a funding source team to identify and track potential sources of funding.

VI. Integrated List Assessment Results

Jonathan Zangwill presented the results of the DRBC 2004 Integrated List Assessment from the previous TAC meeting. Mr. Zangwill reviewed the list categories, monitoring locations, and assessment units from the previous presentation.

Several assessment segments were determined to be non-supporting of the Aquatic Life Use, including portions of Zone 1A, 1B, 1D, 1E, 3, 4, 5, and 6. In the non-tidal river, this determination was based on pH, turbidity, and TDS. In the tidal river, it was based on DO, temperature, and toxics.

The drinking water use was not supported in Zone 1B based on turbidity, and in Zones 2 and 3 based on toxics. The group discussed the criteria used to determine support of the drinking water use for toxics. Mr. Aptowicz questioned how a non-supporting determination can be made when ambient concentrations are below the MCL for finished drinking water. The group acknowledged that there is a logical inconsistency in the EPA rules that allow a determination of non-supporting the drinking water use, based on fish consumption, even when the concentrations are below the MCL. Several participants suggested that DRBC should have allowed more review time before forwarding the assessment results to the states.

The Recreation use was not supported in portions of Zone 1E based on fecal coliform.

The Fish Consumption use was not supported in Zones 1C through Zone 6. In Zones 1C and 1D, the non-support is based on mercury. In Zones 1E, 2, 3, 4, and 6 the determination is based on mercury, dioxins, and PCBs. In Zone 5, the determination is based on PCBs, dioxins, mercury, arsenic, and chlorinated pesticides.

The shellfish use, which applies only to Zone 6, was determined to be probably supported in most segments, and probably not supported in a few segments.

Overall, every segment of the Delaware River from Zone 1A through 6 had one or more uses not supported in at least a portion of the river.

VII. Report of the Data Quality Subcommittee

Dr. Jeff Wetherington reported on the activities and current thinking of the data quality subcommittee. The Data Quality Subcommittee was assembled to establish a framework for collection of data so that:

- Observed data is sufficient to identify significant sources of contaminates in the environment
- Observed data is suitable for use in models and other scientific tools to understand fate and transport of contaminates in the environment

- Analytical and data handling methods are identified to ensure that progress can be measured as the ambient concentrations of contaminants in the environment decrease

Members of the subcommittee included participants from EPA, DRBC, USGS, the states, industry and municipalities. The subcommittee set a goal of developing a QAPP for each loading category, beginning with point discharges, as well as developing a data quality glossary and data quality objectives. The group discussed the fact that DRBC had already developed QAPPs for many of the loading categories. Could the subcommittee develop QAPPs in quickly enough to be used for Stage 2 data collection? Mr. Cavallo indicated that the subcommittee's primary interest was in the data quality objectives portion of the QAPP. Dr. Fikslin recommended that a generic QAPP discussing objectives and methodologies may be useful, but that having the subcommittee develop QAPPs for each data collection effort would be too burdensome.

Dr. Wetherington reviewed the discussions and take home messages from each of the subcommittee meetings. Some relevant points included:

- Set DQOs early in the process;
- Set requirements for sampling -- methods, volumes, masses, and required blanks;
- Develop QA/QC and other performance checks; and
- Set data deliverables and reporting protocols.

Dr. Wetherington reviewed some of the terms and definitions in the data glossary. The Data Quality Subcommittee's current thinking included some initial recommendations on critical decisions, including:

- Fundamental use of the data:
    - numerical model calibration;
    - identifying major sources and pathways.
- PCB sensitivity and concentration of interest:
    - lowest calibration standard should be 0.2 ng (CS-0.2)
    - Minimum Level (ML) of 1 to 10 pg/L based on a 2 Liter sample
    - "J" values between EDL and ML
    - "U" values below EDL
    - "E" values above highest standard
- Sample matrix:
    - Whole water
- Target list:
    - 209 congeners to minimize coeluters
- Sampling type, number of samples, collection frequency:
    - composites
        - time weighted for dry weather
        - flow weighted for wet weather
    - sample volumes (minimum)
        - 2 to 2.5 Liter for PCB
        - 1 Liter for POC and DOC
        - 1 Liter for TSS

The subcommittee needs to clarify time constraints and needs of the PCB fate and transport model. The subcommittee's next activities include:

- Decisions regarding number of samples and collection frequency;
- Incorporate critical decisions into the DQO's;
- Reach out to analytical labs; and
- Begin developing a QAPP for point source sampling.

VIII. Updates from other Subcommittees and Workgroups

Loadings Subcommittee

Mr. Blair reported that the Loadings Subcommittee met in April and May. In April they reviewed the contaminated site loadings including the different methodologies used. EPA used the universal soil loss equation (USLE) while DNREC and PA employed a fixed regional solids yield number. The loadings subcommittee discussed potential inconsistencies between the two methodologies. The subcommittee also noted some discrepancies between DNREC and EPA estimates on the same site, not attributable to different soil yield methodologies. The subcommittee agreed to further investigate these discrepancies. PWD has supplied additional technical support to the subcommittee through a contract with CDM. Ultimately the loadings subcommittee will develop reports and recommendations on each of the loadings categories.

The Loadings Subcommittee met again in May and discussed contaminated sites. Several participants independently identified an error in the EPA contaminated site spreadsheet resulting in estimates that were 10x too high. The subcommittee will recommend applying the USLE to all of the contaminant sites. New Jersey hasn't completed their estimates. When all the estimates are completed and corrected, we can decide which sites are significant enough to warrant site visit to refine USLE factors and determine if any additional data can be obtained. At the May meeting, the subcommittee also began reviewing tributary loadings and discussed possible alternative methodologies.

The loadings subcommittee canceled a June meeting due to conflicts associated with preparing for the IAC workshop. TAC participants asked if sampling would be performed at the contaminated sites. Subcommittee members indicated that some sites may be investigated for runoff parameters, but that wide scale sampling of runoff for PCBs would be very difficult. The group also discussed the Delaware Toxics Reduction Program (DelTRiP) and how this effort might inform contaminated site load estimates.

Chronic Toxicity Workgroup

The chronic toxicity work group met on May 25 and there is another meeting scheduled for July. There are no membership changes. EPA verbally approved the 2004 QAPP for chronic toxicity testing of fresh water species; DRBC is moving ahead with scheduling sampling for July. The workgroup discussed data evaluation issues. Dr. Brown will spearhead development of a long term strategy for chronic toxicity. Dr. MacGillivray discussed selection of freshwater species for 2004 testing and estuarine species for post 2004 testing.

The TAC discussed recent fish consumption surveys and criteria issues. Several members expressed the need for the Basis and Background document whether it was appropriate to provide a comparison of various criteria to current ambient concentrations.

IAC Update

Mr. Yagecic indicated that the Implementation Advisory Committee (IAC) was holding a two day implementation work shop the following week. Several people have been drafting IAC loading briefing papers to update the IAC and convey how loadings were estimated in Stage 1. The loading papers are posted on the DRBC web site.

The purpose of the work shop is to discuss implementation - how do we actually make reductions in loads to see an improvement in the Estuary. The format will involve presentation of loadings papers followed by panel sessions. The panelists have been submitted by different IAC stakeholder groups; they are people who have experience in implementing PCB load reductions or have some expertise in the area. All of this effort is leading up to an interim report that will highlight actions to be taken in the near term to PCB loads. A final report will be developed at the end of the IAC process.

The group discussed whether or not there would be spaces available at the IAC workshop for TAC members. The group agreed that the IAC steering committee would be asked about available spaces and Mr. Yagecic would inform the TAC.

IX. Public Comment

No public comments were presented at this time.

X. Adjourned

Ms. Noble motioned to adjourn the meeting. Mr. Blair seconded and the motion carried unanimously. The meeting adjourned at 3:25 pm.