

TOXICS ADVISORY COMMITTEE

September 15, 2004

A meeting of the Toxics Advisory Committee was held at the Delaware River Basin Commission office in West Trenton, NJ. Members or alternates present were:

Delaware
Rick Greene

Pennsylvania
James Newbold

Environmental / Watershed
Dr. Anthony Aufdenkampe
Maya van Rossum

Industry
Larry Sandeen

Academia
Dr. David Velinsky

Public Health Interest
Dr. Charles Shorten

New Jersey
Steven Lubow

Municipal
Bruce Aptowicz

Agriculture
Ferdows Ali

New York
Not represented

Resources
Dr. Tim Kubiak

U.S. EPA
Rollie Hemmett
Denise Hakowski

Delaware River Basin Commission
Bob Tudor
Dr. Thomas Fikslin
Greg Cavallo
Dr. Ron MacGillivray
John Yagecic

Other Attendees
Bart Ruitter, DuPont
Tom Starosta, PADEP
Tom Harlukowicz, PSE&G
Dr. Steve Brown, Rohm & Haas
Dr. Jeff Wetherington, DuPont
Tom Healy, Philadelphia Water Dept.
Roy Romano, Philadelphia Water Dept.

I. Recommendations & Agreements

The TAC agreed that Mr. Muszynski should be asked to give a presentation on DELTRiP at the next TAC meeting.

The TAC passed a resolution accepting the analytical recommendations of the Data Quality Subcommittee as presented.

The TAC passed the following resolution:

Loadings subcommittee at the next TAC meeting should make a presentation on the status of:

- *Data inventory for each source category;*
- *Subcommittee's current thinking to date for each source category, including reducing loading uncertainty;*
- *Subcommittee's prioritization for moving forward (i.e. what sources will it work on next in what order creating what body of information).*

II. Call to Order

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

III. Meeting Minutes

The TAC deferred review of the minutes from the August 12, 2004 meeting until the following TAC meeting.

IV. DELEP Update

Dr. Fikslin and Mr. Tudor reviewed recent developments in the Delaware Estuary Program including:

- With the departure of Peter Evans, the Delaware Estuary Program decided to consolidate and streamline by moving the Program Office to the Partnership for the Delaware Estuary Program office in Wilmington, Delaware. Most functions will be performed by the Partnership, but DRBC will continue to provide science and technical services.
- In lieu of reforming the science and technical advisory committee (STAC), DRBC will hire a science coordinator to perform that function.
- Dr. Fikslin distributed information for DELEP's two part Science Symposium. The first part, which will be held January 10, 11, and 12, 2005 in Cape May, NJ will focus on scientific research. The second part, to be held in May will attempt to bring together resource managers and scientists. There will be a second call for papers in October for the Science Symposium. Abstracts should be submitted in November.
- Kathy Kline will be the Chair of the Estuary Implementation Committee (EIC) which will meet every other month.

V. Data Quality Subcommittee

Dr. Wetherington presented an overview of the Data Quality Subcommittee's work to date. Dr. Wetherington indicated that the subcommittee had reached consensus on the analytical issues. Field sampling programs were still under discussion, and the subcommittee will update the TAC regarding this issue. Dr. Wetherington presented the subcommittee-approved versions of the data glossary and analytical method comparison and said he would provide the TAC draft versions for consideration.

The Subcommittee's recommendations on analytical issues included the following:

- Samples should be analyzed for all 209 congeners;
- Two 2- liter field samples;

- Labs will supply sample bottles;
- Entire volume of sample extracted
- Extracts concentrated to 20 μ l
- SPB- octal column must be used
- A 0.5 ng/ ml standard concentration will be used for the low concentration calibration level and a minimum of five levels

- Lab method blank contamination decision rules
 - An individual congener cannot exceed 20 pg/ L;
 - If a congener exceeds 20 pg/ L and the associated sample concentration exceeds 10 \times the amount in the blank, then no action is required;
 - If a congener exceeds 20 pg/ L and the congener is not found in the associated field sample then no action is required;
 - The total PCB concentration cannot exceed 300 pg/ L; and
 - Extraction and analysis of duplicate sample are required if any of the above criteria are not met.

- Report results to the Estimated Detection Limit (**EDL**)
 - EDL calculation procedures will be common to all labs;
 - Noise calculation from discrete sections of chromatogram vs. entire chromatographic region; and
 - No peak smoothing of the chromatograph.

- Project data reporting
 - Data qualifier standardization;
 - Each lab reports their suite of co-eluting congeners;
 - Use common format for data deliverables from each lab; and
 - 45 day turn around time for final full deliverable (EDD & report).

Dr. Wetherington also reported to the TAC the items which were unresolved but still under discussion by the subcommittee. These issues included the following:

- Type of sample (composite vs. grab sample for different types of discharge);
- Field QC requirements;
- Number of acceptable analyses; and
- Usefulness of Stage 1 data.

Dr. Wetherington indicated that the subcommittee's intent was to have final recommendations by October 1, 2004, and suggested that a TAC meeting could be scheduled in early October to review the final products.

The TAC discussed the relative benefits and drawbacks of flow weighted composites and grab samples. Dr. Hemmett suggested having Simon Litten from New York DEC who has worked in the area of variable flows compare composite and grab samples. Dr. Hemmett also suggested having a senior EPA field person from Region 2 add insight into the sampling problems. Dr. Fikslin suggested hearing from some of the field sampling

compliance people at New Jersey or Pennsylvania who are more experienced in characterizing these types of discharges.

Mr. Ruiter said he didn't understand why the focus is being placed solely on a list of approximately 100 dischargers, while ignoring the PCB contributions of the remaining NPDES discharges, MS4s, and contaminated sites. Dr. Fikslin replied that there is a program involving contaminated sites initiated through DRBC's Project Review Branch under Bill Muszynski called DELTRiP. The program is working to identify the universe of sites, prioritize the sites, and ultimately implement monitoring and control. The group agreed that Mr. Muszynski should be asked to give a presentation on DELTRiP at the next TAC meeting.

Ms. Van Rossum stated that she wanted to make the point that there is a charge to the subcommittee and to the TAC to come up with recommendation for the Commissions or to come up with a plan to move forward with the required monitoring on the point sources, and that there is a deadline.

Dr. Shorten made a motion to accept the analytical recommendations of the data quality subcommittee as presented. Dr. Velinsky seconded the motion and the motion carried unanimously.

Dr. Wetherington stated that, as previously agreed, the subcommittee would provide the remainder of its output in 2 weeks on October 1st. Dr. Fikslin disagreed, saying that the executive director's timeframe as discussed at the last commission meeting was to obtain TAC-approved recommendations by the current meeting, and post the recommendations on the web page by October 1st. Dr. Fikslin said that DRBC will be sending out letters informing dischargers of the requirement to collect samples, and referring to the web site. A second round of letters could be sent providing additional detail.

VI. Subcommittee and Workgroup Updates

Loadings Subcommittee

Mr. Yagecic reported on the progress of the Loadings Subcommittee. He indicated that good progress has been made on estimating loads from contaminated sites and he thinks the subcommittee is generally in consensus. The subcommittee has begun to address tributaries and discussed additional characterization. The next item for the subcommittee is the point loads which they presumably will discuss at their next meeting.

The group discussed whether or not a meeting between the Data Quality and Loadings Subcommittees was necessary. The group discussed the subcommittees' charters, roles, responsibilities, relationship to the TAC, and future direction coming from the TAC. Participants expressed various concerns. Mr. Sandeen asked about having Dominic DiToro, Vic Bierman, and the Expert Panel meet with the TAC. Dr. Fikslin responded that the Expert Panel will provide input and direction on the model calibration during the

next Expert Panel meeting. The group again discussed the potential impact of contaminated sites and what measures were being taken to address those sites.

Mr. Yagecic commented that it would be helpful for him as the Chair's representative to bring questions from the TAC back to the loading subcommittee, so that the subcommittee can provide the answers to the TAC. The group drafted the following resolution:

Loadings subcommittee at the next TAC meeting should make a presentation on the status of:

- *Data inventory for each source category;*
- *Subcommittee's current thinking to date for each source category, including reducing loading uncertainty;*
- *Subcommittee's prioritization for moving forward (i.e. what sources will it work on next in what order creating what body of information).*

Dr. Shorten made a motion to accept the resolution. Mr. Lubow seconded the motion and the motion carried unanimously.

VII. Chlorinated Pesticide Data Review

Mr. Yagecic and Dr. Fikslin reviewed the results of chlorinated pesticide data collected concurrently with PCB data during 2000 through 2003.

Ambient Water Data

Mr. Yagecic presented comparisons of chlorinated pesticide data to DRBC's Toxics Criteria for chlorinated pesticides. Ambient samples were collected from 24 stations throughout the estuary during 14 sampling events between September 2001 and November 2003. Samples were analyzed for 14 chlorinated pesticide compounds by AXYS Analytical using a high resolution GC high resolution MS isotope dilution method. The majority of results were below criteria. The results are summarized as follows:

<u>Compound</u>	<u>Results exceeding criteria</u>
DDT	16 of 156
DDD	0 of 156
DDE	0 of 156
HCH alpha	2 of 156
Heptachlor	1 of 156
Chlordanes	28 of 156

Fish Tissue Data

Dr. Fikslin presented fish tissue chlorinated pesticide results. Composite samples of 5 fish were collected from 5 stations in the estuary at:

- Crosswicks Creek (RM 128.4);
- Tacony Palmyra Bridge (RM 108.0);
- Paulsboro (RM 87.0);
- Deepwater near Raccoon Creek (RM 67.0);
- Opposite the mouth of the C&D Canal (RM 58.9).

Samples targeted white perch and catfish. Samples were collected yearly from 1990 to 1994, biannually from 1996 to 2000, and yearly since 2001. Samples were prepared by the Academy of Natural Sciences, and analyzed by Texas A&M University. Samples were analyzed for 15 chlorinated pesticide compounds and compared to a screening level fish tissue concentration equivalent to a 10^{-6} increased cancer risk in humans. The results show that most tissue concentrations at most stations exceeded the concentration associated with a 10^{-6} increased cancer risk.

Sediment Data

Mr. Yagecic reviewed a comparison of sediment chlorinated pesticide data to various sediment quality guidelines. Sediment samples were collected in October 2001. For DDT, sediment concentrations exceeded some of the sediment quality guidelines in the upper estuary. For other compounds, concentrations were generally lower than most of the guidelines with a few exceptions.

Tributary Data

Mr. Yagecic reviewed tributary chlorinated pesticide concentrations and compared measured concentrations to main stem chlorinated pesticide criteria. Tributary samples were collected during wet and dry weather from 20 tributaries during 2002 and 2003. Although main stem criteria would not apply to many of the tributary sampling locations, the criteria would provide some indication as to whether or not the tributary was contributing to an exceedence of criteria in the main stem. For DDT and Heptachlor, several tributary samples exceeded main stem criteria. For DDD, DDE and HCH alpha, all samples were below the criteria. For Chlordanes, a majority of the samples exceeded the main stem criteria.

After review of the data sets, the group discussed additional options for assessing the data. Recommendations included:

- Plotting relative proportions of DDT/DDD/DDE;
- Plotting the ratio of DDD to DDE;
- Plotting carbon normalized concentrations in sediment;
- Examining correlations of sediment chlorinated pesticide to PCB concentrations;
- Estimate sediment pore water concentrations and compare to chronic aquatic life criteria;

- Use a BSAF to back calculate a new site specific sediment quality guideline;
- Investigate additional sediment quality guidelines developed by SETAC; and
- Develop time series fish tissue concentration plots.

DRBC staff agreed that these assessments would be made in upcoming months.

VIII. Fish Consumption Advisory Signage Proposal

Mr. Yagecic presented a fish consumption signage proposal, in response to the Pennsylvania Sea Grant Fish Consumption Survey presented by Ann Faulds at the previous TAC meeting. The proposal was distributed to initiate coordination with the states. This proposal could supplement work already proposed by Pennsylvania Sea Grant, which did not include signage. Dr. Fikslin reminded the TAC that last winter DELEP consider grant proposal for their following budget year. Comments should be provided to Mr. Yagecic.

IX. Public Comment

No public comments were presented at this time.

X. Adjourned

Mr. Lubow motioned to adjourn the meeting. Dr. Kubiak seconded and the motion carried unanimously. The meeting adjourned at 3:25 pm.