TSCA/iPCB/Green Chemistry Workgroup Meeting Summary
June 2, 2021

TSCA Members in Attendance

Scott Braithwaite (ACA)
Joel Breems (Rep. The Lands Council)
David Darling (ACA)
Jeff Donovan (City of Spokane)
Lara Floyd (White Bluffs Consulting)
Gary Jones (Printing United Alliance)
Doug Krapas (IEP)
Craig Manahan, Craig (ECY)
Robert Mott (Mott Consulting, LLC)
Cheryl Niemi (Ecology)
Amanda Parrish (The Lands Council)
Elsa Pond (WA DOT)
Karl Rains (Ecology)
Lisa Dally Wilson (Dally Environmental)

Guests:

Lindsay Box (The Lands Council)
Kris Holm (Independent)

iPCB/TSCA Agenda Items Discussed:

General – D. Krapas discussed a housekeeping issue to eliminate the history discussions in the minutes under each of the iPCB/TSCA subjects below as the minutes are becoming very lengthy & cumbersome. This will be done on an annual basis with a note under the General agenda discussion where the most recent history discussions can be found in prior minutes (May, 2021). All members of the workgroup were in agreement with this approach.

1. **WA HHWQC Lawsuits: Action: D. Krapas and others (i.e.: Ecology) to provide any updates on the following lawsuits**
    b. No new updates, however abeyance requests by the Biden Administration are both approaching deadlines in June: The WA State vs. EPA lawsuit abeyance deadline ends on June 4, 2021 and The Puget Soundkeeper Alliance & Makah Indian Tribe vs. EPA lawsuit abeyance deadline ends on June 25, 2021.

2. **Update on PCB EPA Method 1668 study of TiO2 Pigments: Action: J. West & M. Ober to continue providing updates on the TDSC project**
    a. No representatives were present from the TDSC or the ACC, but J. West provided the following update via email on May 3rd, 2021: *I want to follow up on my message from last week. The data are complete and have gone through all of the quality assurance checks. The reporting phase has encountered legal issues associated with the confidentiality and antitrust practices we're required to observe. If I remember correctly, we had predicted a report in May. As much as we would like to wrap this project, I'm not confident that we'll be able to do that. Depending on the progress we make in the next few weeks, we'll be able to provide a clearer prediction.*
    b. Jay west of the American Chemistry Council also provided the following email message to Laura Floyd (Whitebluff Consulting) on May 24th, 2021 in regards to a presentation of the TiO_2 study results to the SRRTTF: *We have a TDSC conference call tomorrow to continue working out matters related to the antitrust and competition policies by which we must abide. I'm not going to place a bet on June. The TF meeting in August is a safer guess.*

3. **Education/Outreach:** **Action: The Lands Council is to provide updates on the iPCB National Outreach Campaign project:**
    a. The workgroup reviewed the comments received and compiled by The Lands Council (attached) regarding the National Outreach Campaign iPCB Draft Website
    b. There was robust discussion regarding bioaccumulation and toxicity of iPCBs.
    c. C. Manahan pointed out that PCB-11 does indeed bioaccumulate and that each congener will have variable bioaccumulation rates.
    d. C. Niemi provided the following link and reference material regarding PCB bioaccumulation and toxicity in a follow-up email on June 2nd:

        https://www.atsdr.cdc.gov/csem/polychlorinated-biphenyls/biologic_fate.html

        Environmental Alteration of PCB Mixtures

        Environmental PCBs occur as mixtures whose compositions differ from the commercial mixtures. This is because after release into the environment, PCB mixture composition changes over time through chemical transformation and preferential bioaccumulation [Cogliano 1998].

        Chemical transformation can occur through biodegradation of PCB mixtures in the environment. PCBs with higher chlorine content are extremely resistant to oxidation and hydrolysis.

        Preferential bioaccumulation occurs in living organisms. Bioaccumulation through the food chain tends to concentrate congeners of higher chlorine content. In humans, bioaccumulated PCBs also appear to be more persistent in the body [Hovinga et al. 1992]. This is significant because bioaccumulated PCBs appear to be more toxic than original Aroclors in animals [Aulerich et al. 1986; Cogliano 1998].
    e. C. Niemi suggested that a statement be include that the scope of this E & O campaign is centric to work in the Spokane River watershed.
    f. K. Rains suggested that a statement regarding iPCBs be included that iPCBs in general are complex, numerous and don't all act the same way, and that each congener will have differing and variable bioaccumulation rates.
    g. G. Jones comments included a request that page 7 indicate "that iPCBs only represents 0.19% of the contribution of total loading of PCBs to the Spokane River. {based on the 2016 Comprehensive Plan}. **Action: D. Krapas to confirm the accuracy of this statement with David Dilks of LimnoTech**
    h. There was additional robust discussion regarding E. Pond's comment questioning the inclusion of road paints contributing to municipal storm water. Other members of the workgroup believed that this was an important issue for inclusion in the iPCB campaign effort due to the WA Procurement Policy and the DOT specification for preferential treatment of yellow road paints prohibiting paints containing Diarylide yellow pigments.
    i. E. Pond's comment also included a reference that the PCBs in roadway runoff is largely from cars and atmospheric deposition. Other workgroup members requested evidence to support this statement. E. Pond followed-up with the following references in an email to D. Krapas on June 4th :

https://link.springer.com/article/10.1007/s00244-019-00640-x

https://apps.ecology.wa.gov/publications/documents/1903003.pdf

https://www.spokanecounty.org/DocumentCenter/View/3407/Study---PCBs-in-Municipal-Products-PDF?bidId=

Background on PCBs and their impacts - Polychlorinated Biphenyl (PCB) Wastes - LibGuides at University of Illinois at Urbana-Champaign

Lower Duwamish Waterway Air Deposition Scoping Study, Data Gaps Report, Leidos and NewFields, December 2013 (attached)

Air Deposition Leidos Database, Excel Spreadsheet (attached)

j. E. Ponds email to D. Krapas on June 4th also included the following salient points:

- *Basically I just want to make sure we don't present wet paint data as conclusive evidence about the level of PCBs being contributed from cured roadway paint.*
- *The other point I was trying to make is that the website list seems very incomplete for such a complex challenge, listing only roadway paint gives the appearance it is a significant source – which is what I doubt. I have begun reaching out to contacts in the various other PCB efforts I am involved in on the west side. Attached are some data sources the Duwamish Pollutant Loading Assessment is using to model PCB loading from atmospheric deposition. As I mentioned previously, it sounds like this pathway may be a main source (and may well include PCBs from cured paint per the chemical process Cheryl N was describing?). Atmospheric deposition is obviously a very hard pathway to address since it's literally "all up the air", but it is an important part of the challenge for surface runoff (stormwater) issues that I think should be accounted for.*

Lower Duwamish Waterway Air Deposition Scoping Study, Data Gaps Report, Leidos and NewFields, December 2013 (attached)

Air Deposition Leidos Database, Excel Spreadsheet (attached)

k. D. Darling questioned the designation of primary and secondary sources of iPCBs since there is no basis for such designations. Other members agreed that there is some work that needs to be done here to provide better clarity regarding potential pathways.

4. **2021 Proposed Projects:**
   a. The scopes of two iPCB/TSCA workgroup projects (*Develop Industry List of Pigments: Chlorinated vs. Non-Chlorinated* and *Lower Procurement Limits Campaign, Phase 1: 3rd Part Research)* were approved by the SRRTTF at the May meeting.

b. The next step is to submit the projects for RFP (request for proposal). **Action: D. Krapas to compile and submit the RFP's.**
c. iPCB/TSCA workgroup members should provide contact information for any parties that might be interested in bidding on these scopes of work. **Action: iPCB/TSCA workgroup members to provide bidder contact information**. The potential bidders list thus far includes the following:
   - Gonzaga University
   - Rutgers University
   - Northwest Green Chemistry
   - Chemforward (Pigment Project only)
d. L. D. Wilson has an $8k placeholder in the TTWG budget for the Phase 1, Sources & Pathways of PCB-11 project (iPCB/TTWG Project #4). Approval will need to go through the process for approval and execution of projects.

5. Safer Products WA: Action Ecology, C. Niemi and C. Manahan to continue updates

a. Ecology conducted a webinar addressing iPCBs in paints on June 1st from 09:30 to 11:30 PST that included a technical evaluation on the Safer, Feasible, Available Analysis, and also solicited ideas and discussion.
b. Ecology will publish a summary of the Q & A session in a couple of weeks.
c. Based on Ecology's findings, they have enough evidence to demonstrate that some paints have lower levels of PCBs than others. Next steps will be to evaluate if restrictions should be proposed. Any resulting draft regulations will be published in November, 2021 with any final regulations due for submittal to the legislature by June, 2022.

6. TTWG and Funding Groups: Action L. Dally Wilson & K. Rains to provide updates

a. K. Rains met with A. Parrish on the spreadsheet of listed grant opportunities. Over the next month the Lands Council will locate and review Mike Peterson's files for any opportunities that he may have been pursuing.
b. The funding group still needs to finalize the grant finding boilerplate

7. **EPA research opportunities:**

a. No EPA representatives were present for the June, 2021 meeting but D. Krapas did receive an email message update from Michelle Mullin on June 1st regarding 2021-2022 Small Business Innovation Research (SBIR) Phase I Solicitation that includes research funding for small businesses developing PCB-free coloration. D. Krapas forwarded this information to the iPCB/TSCA Workgroup members via email on July 1st.

b. **iPCB Key words for Scholarly Articles:** Michelle stated during our February, 2020 call that EPA is resource limited and is focused on higher priority projects such as site clean- ups and iPCB product testing (see below Children's Product Testing), so this particular project has been assigned a lower priority and is currently on the back burner. **Action EPA, M. Mullin& L. Edmondson**

c. **Children's Product Testing**: Michelle stated during our February, 2020 call that this remains a work in progress, as EPA attempts to understand the variability of the results and other environmental influences (air emissions, dust adsorption, etc.). **Action EPA, M. Mullin& L. Edmondson**

d. **NTP risk study of various Congeners and Aroclors**: NTP is evaluating toxicity of PCB congeners 11, 95, 126, 153 and Aroclors 1016 and 1254. **Action EPA, M. Mullin& L. Edmondson**