Spokane Regional Toxics Task Force
TSCA Workgroup
Proposed Plan of Activities
January 9, 2019 Meeting Summary

Conference Call Attendees:
Doug Krapas (Inland Empire Paper Company)
Lauren Heine (NW Green Chemistry)
Joel Breems (Avista)
Mike Peterson (The Lands Council)
Adriane Borgias (Ecology)
Karl Rains (Ecology)
Doug Greenlund (City of Spokane)
Jeff Donovan (City of Spokane)
Raleigh Davis (ACA)

Members Not in Attendance:
Tom Agnew (Liberty Lake Sewer & Water District)
Cadie Olson (City of Spokane)
Lucy Edmondson (EPA)
Michelle Mullin (EPA)
Tammie Williams (WA DOT)
David Darling (ACA)
Lisa Dally Wilson (Dally Environmental)
Elsa Pond (WA DOT)
Ben Floyd (White Bluffs Consulting)
Jay West (American Chemistry Council)

Meeting Notes (General):

- Meeting notes for this month’s meeting are shown in Blue (note that all verbiage shown in black is archived information from previous meetings).
- Action Items are shown in Red.
- Jay West from the American Chemistry Council joined the December, 2018 meeting and will likely continue participation. Jay’s has experience as an Ecologist, in toxicology, as a TiO2 liaison and with TSCA policy.
- Greg Lahtig (WA DOT) removed from the TSCA Workgroup Distribution List.
- Michelle Mullin is to participate as a member of the TSCA Workgroup and provide updates regarding EPA’s National workgroup addressing inadvertently generated PCBs.
- During the November, 2018 meeting, the TSCA Workgroup focused only on the Task #3 Letter from EPA Region 10 Director Chris Hladick, and the Task #7 Workshop.
- Elsa confirmed keeping Tammie Williams on the TSCA Dist. List, but followed up with Greg who requested to be removed.
- Lauren Heine joined the TSCA workgroup due to her work in Green Chemistry and relationships developed in reaching out to ink suppliers and users.
• David Darling (VP, Health, Safety and Environmental Affairs) of the American Coatings Association (ACA) and Joel Breems of Avista joined the October meeting. David and Joel plan to participate in future meetings when available.

1. **Task #1 – Yellow Road Paint Pilot**
   a. Description – complete work started with the American Coatings Association (ACA) to eliminate the use of diarylide yellow pigments in road paints in WA State and perhaps across the U.S. WA DOT needs to follow-up and incorporate into their purchasing specification, along with the City of Spokane and Spokane County. Also need to work on a national level to and consolidate the number of paint formulations from the current 38 down to approximately 8 (cost reduction).
   b. David mentioned his concerns that other coatings will be much more challenging given performance and broad spectrum color challenges.
   c. Responsible Parties – Doug Krapas, Lisa Dally Wilson, Mike Peterson, WA DOT, City of Spokane, Spokane County, EPA

**Meeting Notes for Task #1:**

- **Doug Greenlund confirmed that the City of Spokane followed DOT’s new specification last year (2018) for purchasing non-diarylide yellow road paint.**
- The City has hired a new Streets Director that will ultimately appoint a leader to address this issue for the City. In the interim, Doug Greenlund and Jeff Donovan have responsibility for evaluating. Doug Greenlund mentioned that the City buys off of the State contract and will fall back onto non-chlorinated alternatives.
- Doug K followed up with all recipients of the SRRTTF letter to see if they intend to adopt similar provisions for the use of non-chlorinated road paints. The following municipalities/organizations intend to use non diarylide yellow road paints:
  - City of Spokane
  - Spokane County
  - City of Liberty Lake
  - City of Post Falls

**Action Item:** Doug K continues to follow-up with the balance of recipients on the letter (Idaho and Spokane Valley).

- **Elsa provided the following clarification via a follow-up email regarding the DES and WA DOT contracts for WA State’s new PCB Purchasing Policy:**

  DES used WSDOT’s master contract for paint materials as a pilot for the new procurement policy required under **RCW 39.26.280-290.** DES’s draft policy (at the time the contract was developed) included using a **minimum of five percent preference to each Bid submitted...that includes a certification meeting the requirements** of the Policy. One of the requirements to receive the 5% preference
is to submit independent, third party lab test results (method 1668c) – only one of the four vendors who bid on the paint contact provided tests to receive the 5% preference. After vendor outreach to ensure feasibility, WSDOT included a contract specification (see exhibit B1 in the contract documents) prohibiting Pigment 83 and diarylide yellow specifically. Three vendors were awarded under the contract; one vendor submitted test results (and received the 5% preference), and two vendors met the bid price and contract specifications (did not receive preference but certified their products do not contain prohibited pigments). The paint contract is administered by DES and can be used by other jurisdictions around the state. Paint material purchased under this master contract is used for WSDOT’s maintenance painting (the majority of paint purchased). Paint material used during construction is specified in WSDOT’s Standard Specification Division 9-34, Pavement Marking Material. Specification 9.34.2 is scheduled to be amended in January 2019 to prohibit diarylide pigments. Once published these amendments (‘pink sheets’) are used in new construction project contracts.

WSDOT’s Qualified Product list (QPL) will be updated after the January amendments to represent qualifying vendor materials.

**Action Item:** It would be helpful to have a Fact Sheet with a list of Approved Products for Road Paints (Manufacturer’s, Paint Type/Products, Quality Products List (QPL), etc.). Elsa and Doug K will begin to develop based on what has currently been identified. This will be a living document as more products are identified.

- Discussed the action item to investigate national level standardization of road striping paints to both reduce the number of formulations and eliminate diarylide yellow based paints:
  - Elsa stated that conversations within WA DOT have identified two Federal agencies that were likely to have jurisdiction over such decisions: AASHTO – The American Association of State Highway Transportation Officials (AASHTO) and the Federal Highway Administration (FHWA)
  - Doug K had conversations with the American Coatings Association (ACA) and they suggested that we keep our powder dry until we have some time to evaluate how this works in WA State first.
  - The TSCA workgroup was in agreement that we should take some time to evaluate the effects in WA State before developing strategies to extend on a national basis. This task will remain on our Task List for future evaluation.
  - David mentioned that before contacting other states (beyond Idaho) that it would be helpful to evaluate any issues related to the use of non-chlorinated yellow road paint.

**Action Item:** The TSCA Workgroup needs to solicit progress reports from WA DOT, City of Spokane, Spokane County and other involved
parties to evaluate how the use of non-chlorinated road paints is working. Need to develop bullet points for this evaluation (products, multiple bidders, durability, application, cost, etc.) Schedule check-ins every six months, beginning in January, 2019. Doug will take the lead at drafting a one page survey with a standard list of questions. Elsa, Doug Greenlund and others that use road paints will assist in reviewing and revising the draft.

2. Task #2 – Printing Inks Pilot (Packaging/Newsprint)
   a. Description – similar to Task #1 above, continue working with the Color Pigment Manufacturers Association (CPMA) and Mark Vincent of Dominion Colour towards the development of non-chlorinated pigment based inks used in the publishing of newspaper, magazines and advertisements. Perhaps run trials with select publishers to assess the characteristics of alternative non-chlorinated products.
   b. Suggest using purchasing power, contracts and marketing strategies to educate the purchasers of TSCA containing PCB products (examples: Amazon, HP, Apple, publishers). A caution that we need to get our facts straight before pursuing.
   c. Responsible Parties – Doug Krapas, Lauren Heine, Doug Greenlund, Adriane Borgias (TSCA concerns), Mike Peterson, David Wawer (CPMA), Mark Vincent (Dominion Colour), Publishers

Meeting Notes for Task #2:

- Lauren Heine provided a summary of her recently published whitepaper on TiO\textsubscript{2} for the SRRTTF funded ($5k) project:
  - Two manufacturing processes, sulfate & chloride
  - U.S. manufacturers almost exclusively use the chlorinated process
  - China and other foreign manufacturers use the sulfate process that generates hazardous waste materials and is not as pure.
  - The chlorinated process needs a higher grade ore and has pickling, hydrolysis or oxidation steps that exceed 500°C. Because of these high temperatures, manufacturers claim that PCBs are destroyed.
  - One pigment manufacturer cited in the whitepaper claims to have tested two batches of TiO\textsubscript{2} received in pure powder form from two different suppliers using 1668C with reported total PCB levels of 85 ppb.
  - Provided a very rough estimate of global production (6 million metric tons) and potential PCB association (assuming ½ of production is chlorinated or 3 million metric tons @ 85 ppb = 576 pounds).
  - Mike P. pointed out that his lip balm contains 7.5% TiO\textsubscript{2}
  - Conclusion is that there is some evidence that inadvertent PCBs may be present in TiO\textsubscript{2} and that further testing should be considered to verify.
Action Item: Lauren Heine is to follow-up with the pigment manufacturer that has tested TiO2 to see if we can obtain a copy of the analysis and/or to explore what congeners were detected.

Action Item: The TSCA workgroup should continue to evaluate testing TiO2 samples using 1668C to confirm whether inadvertent PCBs are present. This study can perhaps be a part of Ecology’s or EPA’s continued product testing studies.

• During Lauren’s investigation of TiO2, there was an indication that silicone may also contain inadvertent PCBs. Doug K was aware of this from prior references that warned of silicone tubing used for composite sampling contaminating water samples. Joel mentioned a PMF Blank study draft document by Dr. Rodenburg in which she identifies congeners thought to be associated with silicone products (attached).

Action Items:

1. Evaluate PCB’s in silicone (reference Rodenburg) that is supposedly used in paints, plastics, silicon tubing, other mixtures, etc. Lauren Heine

2. The TSCA workgroup should evaluate adding the analysis of silicone to Ecology and EPA product testing studies.

• Doug & Lauren met with the following representatives from the supplier industries:
  o Phone-con with James Ewell of the Sustainable Packaging Coalition (SPC) on November 8, and have tentatively set up a Brown Bag Lunch meeting with the SPC in January, 2019.
  o Phone-con with Romesh Kumar of Clariant and Northwest Green Chemistry (NGC) on November 21. Discussed alternatives for yellow pigments and limitations for blues. Romesh expressed interest in participating in the SRRTTF TSCA/Pigments workshop.
  o Phone-con with Michael Ober of The Chemours Company on November 27 regarding TiO2. U.S. manufacturers use primarily the chlorinated process in lieu of the sulfonated process (used primarily in Asia) due to lower generation of hazardous waste. Process is heated to 2000°C, so no opportunity for formation of PCBs.
  o Phone-con with James Ewell of the SPC on November 8, and have tentatively set up a Brown Bag Lunch meeting with the SPC in January, 2019
  o Lauren Heine had a phone-con with Mark Vincent of Dominion Colour on December 13.
• Doug & Lauren Heine spoke with a representative from HP that produces inks for a variety of uses, including printing and packaging. They are aware of the issue and appear to be willing to work with us. We will continue these discussions with HP and others to encourage development of non-chlorinated alternatives.

• HP & Apple intend to modify their purchasing and product specifications to be a few orders of magnitude below the TSCA allowance of 50 ppm (currently confidential). Suppliers feel that this is achievable, however they need a number to shoot for as zero PCBs is not possible.

• Since the last meeting HP adopted a new PCB threshold of 0.1 ppm in their purchasing policy for all products produced or procured by HP. The updated HP Standard 011 General Specification for the Environment has been published and the external version is available here on page 10: http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04932490

• Apple also adopted a Regulated Substances Specification in 2016 with a Non-detect threshold set at < 0.1 ppm (https://www.apple.com/supplier-responsibility/pdf/Apple-Regulated-Substance-Specification.pdf). The new version, Version K, will be rolled out next month, but no changes to the PCB threshold are expected.

**Action Items:**

1. Doug & Lauren to set up a Brown Bag Lunch meeting with the SPC

2. Work with WA State to adopt a lower threshold limit for PCBs similar to HP & Apple. Doug to work with Adriane and Ken Zarker

3. **Task #3 – Investigate Technical, Legal and Policy Solutions**
   a. Description – continue investigation of the Technical, Legal and Policy Solutions document (attached) to determine what, if any, may be worth pursuing. This includes ranking the solution list according to feasibility, resources and timing, then pursuing any feasible options.
   b. Responsible Parties – Doug Krapas, Lucy Edmondson (EPA), Lisa Dally Wilson, Adriane Borgias

**Meeting Notes for Task #3:**

• Adriane provided the following summary of 40CFR761 regarding the 1978 determination of the environmental impact of PCBs:
  o The original analysis of impacts was performed more than 40 years ago. The situation today is very different.
  o Any release to the environment is considered “significant” and over the years the regulations have defined what that means (i.e. 1 ppm, originally)
- EPA has the authority to regulate PCBs under other statutes, which TSCA does not preempt. (This is where the disconnect occurs: the Clean Water Act uses a different risk assessment process to set standards than TSCA.)
- From the original analysis: “EPA recognizes that you can’t control the background concentrations, but you can control the PCB activities associated with manufacture and distribution in commerce.”
- Today’s TSCA states that the intent of Congress is to carry out TSCA in a “reasonable and prudent manner,” which means consideration of the environmental, economic, and social impact.
- Please see the attached “TSCA Quick Summary” for additional details.

**Action Item:** The SRRTTF should explore options to demonstrate that concentrations of inadvertently generated PCBs present an unreasonable risk to health or the environment. TSCA differs from the CWA, so the economic part may be more important than the health part. The TSCA limit of 50 ppm economic piece in 1979 was based on disposal of electrical equipment. It may be timely for this renewed review considering the more stringent WQS standards that have been imposed by EPA and the economic impact of compliance. The SRRTTF could submit a request to EPA to perform this economic impact analysis since the record/analysis in 1979 is not relevant to current conditions/WQS (WWTS improvements, regulatory processes, variances, stormwater, etc.). Lucy and Adriane are to explore the regulatory potentials for this option.

- The response letter from EPA’s Chris Hladick to the SRRTTF was reviewed during the TSCA meeting:
  - The letter acknowledged the petition for reconsideration
  - Additional rulemaking requires a finding that existing concentrations of inadvertently generated PCBs present an unreasonable risk to health or the environment (see Action Item #2 below).
  - The National Toxicology Program (NTP) is evaluating potential toxicity of PCB-11, 95, 126, 153 and Aroclors 1016 & 1254.
  - EPA R10 is leading a national workgroup focusing on inadvertently generated PCBs. Michelle Mullin is to participate as a member of the TSCA Workgroup (upon her return from maternity leave) and provide updates regarding EPA’s National workgroup addressing inadvertently generated PCBs.
  - EPA has funding next summer devoted to a product testing study.
  - Request suggestions for additional research that would be most helpful to the SRRTTF (see Action Item #4 below):
  - Acknowledgement of industries taking charge to adopt lower PCB limits HP (see Action Item #5 below).
Doug and Lucy provided a summary of the Hladick letter to the SRRTTF Full Group during the December meeting.

See additional Action Items below:

**Action Items:**

1. **EPA requested suggestions from the SRRTTF regarding additional research that may benefit the SRRTTF regarding inadvertently generated PCBs (consumer product testing (TiO2, Silicone, etc.), identify processes that produce inadvertent PCBs, a summary of other actions going on across the country so we don’t duplicate efforts, source identification of known PCB containing products (construction materials, caulks, etc.), produce a data base to inform consumer purchasing (education, risk, etc.)**

2. **How do we access who else is adopting lower PCB limits (Sustainable Packaging Coalition, etc.)?**

3. **Doug, Lucy, Lisa and Adriane need to arrange for a meeting to have a high level review of the Solution Document to prioritize feasibility of the various options for further consideration.**

4. **Task #4 – PCB-11 Risk Assessment**
   a. Description – EPA in a letter of response to the SRRTTF dated February 24, 2015 (attached), EPA requested that toxicity testing be conducted on PCB-11 by the National Toxicology Program at the National Institute of Environmental Health Sciences. This promise was made 3 years ago in 2015 and we have not had any feedback from EPA on the results of this study. Need a champion within EPA to follow-up on the status of this project.
   b. Responsible Parties – Doug Krapas, Lucy Edmondson, Ecology

**Meeting Notes for Task #4:**

- Lucy obtained additional information that the National Toxicology Program at the National Institute of Environmental Health Sciences is currently working on this request. There is currently no scheduled date for completion.
- Further information regarding this assessment was provided in the EPA letter of response received prior to the TSCA meeting. The NTP is actually evaluating toxicity of PCB congeners 11, 95, 126, 153 and Aroclors 1016 and 1254.

**Action Item:** Lucy to continue follow-up on when we might expect results.

5. **Task #5 – Public Relations Campaign**
a. Description – continue work on educating regulating agencies, legislators, end users (publishers, packaging, consumers, etc.), environmental interests, tribes, and the general public on the TSCA concern, its implications and potential remedies.

b. Responsible Parties – Doug Krapas, Education Workgroup, Green Chemistry Workgroup, Dr. Lauren Heine and Charlotte Trebilcock (NW green Chemistry), Tony Kingsbury and many others.

Meeting Notes for Task #5:

- The group felt that there was not an immediate need to coordinate with the Education and Public Outreach group until we have further developed our own strategies. **We will keep this task as a placeholder for future efforts.**

**Action Item:** Doug, Joel and other SRRTTF members to participate in the Spokane River Forum public relations effort.

6. **Task #6 – SRRTTF to submit Issues Letter to Chris Hladick (EPA Director):**

- **This task has been completed**

7. **New Task #7 – Workshop:**

a. Description – Lisa proposed the idea for a future stakeholder workshop that includes participation by business, industry, and regulators to discuss and develop solutions to pigment related TSCA issues, including working with industry (HP, CPMA, ACA, etc.) to investigate inks and dyes alternatives, investigate various elements of the Solutions Document, etc.

b. Responsible Parties – Lisa to take a leadership role in development of this concept

**Meeting Notes for Task #7:**

- Explored this idea with David Darling in regards to supplier participation. Concept would be better as long as it is not threatening. Recommend a brief description of workshop to present to the ACA workgroup (location, audience, length, topics, etc.), and ACA will provide feedback. Location should be in Spokane for SRRTTF benefit and keep WA centric.
- Potential coordination and funding with Ken Zarker and the Ecology led workgroup.
- Need additional information on the supply stream (inks, dyes & pigments).
- Suggestion to spend half of the workshop on challenges and the other half on potential solutions.
- Elsa discussed WA DOT’s challenge in evaluating batch products as a potential workshop subject. For example similar products can have different PCB levels (examples include Hydroseed, Fish Feed and Blue Dyes). Expectations are infeasible by manufacturers.
- Lisa developed a more detailed description of the workshop (scope/goals) for presentation to the SRRTTF for approval on December 12.
- We had two conference calls with Ken Zarker on 11/13 and 11/29 to further develop the relationship between the SRRTTF TSCA Workgroup and Ken’s Green Chemistry Group, and to determine workshop goals. We will continue these meetings to formalize both of the above.

**Action Items:**

1. **Continue discussions with Ken Zarker to explore shared resources and participation in the workshop.** Doug, Lisa and Lauren
2. **Need to follow-up with Lucy at EPA regarding potential funding dollars for this workshop through the National Toxicology Program (NTP) Workgroup.** Lisa Dally Wilson and Doug K
3. **Also need to organize a planning committee to develop workshop concept, attendees (HP, ink and pigment Manufacturers, SPC, new technologies (i.e.: CarbonNutra algae), concerns, performance challenges, etc.).** Lisa, Lauren, Doug K & Adriane