

Dave,

Below, outlined in yellow, are responses to your comments and questions. I believe that together, we can work collaboratively to reduce iPCB's that are getting into the Spokane River and other water bodies. Thank you for this conversation!

Mike

American Coatings Association (ACA) and the PRINTING United Alliance comments on the Lands Council proposal.

The proposal identifies three outcomes: creating a network of interested parties, educating the network to lobby those that use or consume inks and pigments to take some type of action to either reduce their use or change their current practices, and a request that EPA revise the TSCA limits for iPCBs. The proposal includes the preparation of a web page, toolkit, and a database. The proposal does not provide any specific details as to how each of the tasks are to be completed nor what the specific contents of the web page, toolkit, or database will include.

Nationwide Network of Interested Parties

During the discussion of the first element to create a nationwide network of interested parties, it was mentioned that areas with fish advisories for PCBs will be a primary focus for these networking opportunities. Since the focus of the proposal is on iPCBs from inks and pigments, there needs to be additional justification provided as to why iPCBs from inks and pigments are the primary cause of the fish advisories.

PCB's from ink and pigments are making their way into the river from point sources, such as IEP, and wastewater treatment plants, as well as non-point sources such as stormwater. As legacy PCB's are being cleaned up, and slowly declining, iPCB's will become a larger percentage of the total PCB's. Since water quality standards are not being met, and iPCB's are contributing to exceedences, it makes sense to reduce the input of iPCB's in products that eventually enter the river. While it may appear that PCB-11 is not appreciably bioaccumulating in Spokane River fish tissue, there are many other congeners associated with pigments that are.

It would also appear that the core participant in this network has already been accomplished with the work performed by Gonzaga University when it was researching what data is available for the database of products containing PCBs. During its research, the university contacted many organizations and government bodies in its quest to locate data. They received feedback from many that there is an interest in a collaborative effort to address PCBs being discharged to waterways. In order for this part of the proposal to move forward, there needs to be additional justification provided that will demonstrate why spending additional money in this area will reduce discharges of PCBs to the Spokane River. The basis needs to be more than speculative as the amount of funding being requested is substantive.

The supporting information for the proposed nationwide network also needs to provide a clearer explanation as to why it is the responsibility of the Task Force to create and lead national network and how such a network would benefit the Spokane River. Any benefits that could be derived from such an organization will take a lot of resources (e.g., administrative support, meetings, calls, etc.) dedicated on a continuing basis which is a significant commitment on the part of the Task Force, especially since no definitive benefit can be defined for the Spokane River.

Spokane, in large part due to the Task Force, is a leader in raising the issue of iPCB's in the country. As more municipalities are facing challenges in meeting water quality standards (such as Roanoke), there is a need to create a national effort to reduce iPCB's in products. The Task Force's experience at hosting the iPCB workshop, as well as the ECOS resolution makes us a logical choice. Our unique collaborative Task Force positions us to consider the interests of diverse parties, including the ink and pigment manufacturing supply chain. In regards to the contribution of iPCBs to the Spokane River, as stated above, IEP, wastewater treatment plants, and non-point sources such as stormwater are contributing iPCBs to the watershed. These sources are not originating locally but from many diverse sources. For example IEP recycles paper from distances as far as 1500 miles from Spokane, including the U.S. and Canada. Therefore a national, if not international solution is needed to reduce PCB sources to the Spokane River.

Proposed Database and Characterization of iPCBs from Inks and Pigments

The proposal positions that iPCBs from pigments and inks are the sole source of the iPCB impairment problem for the Spokane River, and concludes that inks and pigments need to be addressed with a program of this magnitude. There is no data presented to support that iPCBs are the sole source of the problem with the Spokane River and that iPCBs from inks and pigments deserve a nationwide campaign of education and action. In fact, based on other studies regarding the Spokane River, iPCBs are not the major impairment issue. In looking at the 2016 Comprehensive Plan to Reduce Polychlorinated Biphenyls (PCBs) in the Spokane River report, iPCBs are estimated to be contributing 0.19% of the total loading of PCBs to the Spokane River.

The 2016 report, on page 20, gives a mid-point estimate of iPCB's from PCB 11 as 9 kg/yr. On page 19 report states that "the estimated maximum potential sum of transformer PCB mass across all utilities is approximately 12.8 kg". At the last SRRTTF meeting Lisa Rodenberg presented percentages from wastewater treatment plan influent of non-Aroclor congeners PCB 11, PCB 68, and PCB 209 coming from the City of Spokane as 3.2% 0.1% 0.2% respectively, CDA as 6.2% 0.2% 0.8%, HARSB as 6.4% 0.4% 0.6%, Post Falls as 7.2% 0.2% 0.2% and Spokane County as 5.3% 0.1% 0.2%. These present a challenge for dischargers.

As stated above iPCBs IEP, wastewater treatment plants, and non-point sources such as stormwater are contributing diverse, non-local sources of iPCBs to the watershed. Furthermore, we are dealing with overall low levels of PCBs in the pg/L range, so all sources of PCBs are considered significant.

iPCBs from pigments do represent a challenge for IEP's ability to meet their NPDES permit discharge limitations, however this problem is due to the water quality standard more than the amount of iPCBs being discharged. As you know, the water quality standard has been revised by EPA and if the standard withstands the legal challenge, IEP's ability to meet the standard becomes much less significant.

Even with the most advanced treatment available (UF membranes) it appears that IEP's discharge will be well above even the current standard of 170 pg/L.

It is also important to note that a complete dataset of all sources of iPCBs to the Spokane River has not been compiled, including a ranking of the contribution from each source. It is critical that this information be compiled, especially since this proposal is focused just on pigments and inks. The proposal also portrays that iPCBs from pigments as being equal to the Aroclors with respect to toxicity and bioaccumulation. The proposal ignores that the most predominant PCB in the River is PCB-11, which does not appreciably bioaccumulate or has the same toxicity profile as the Aroclors.

We are not solely focused on inks and pigments, but all iPCB's. Motor oil is mentioned in our presentation for example.

Regarding a database of products containing PCBs, the TSCA workgroup already considered and decided not to proceed with an IPCB in Products Data Base effort by Gonzaga where they contacted a wide variety of interested parties to see if they conducted PCB testing for a variety of reasons include concerns with data quality. How would the database outlined in the proposal be different?

We are not asking for a product database, we will compile a spreadsheet of potentially interested parties - municipalities and states with fish advisories, tribes, health districts, etc.

We are very concerned about the negative outcomes that can result from the outreach and education that would identify specific products. As was recently discussed, the TSCA workgroup reviewed the experience with limited unrepeatable testing on Hydroseed products. One test showed PCBs and another showed no PCBs. As the result of one unrepeatable testing result, the hydroseed company that uses recycled paper has now been banned from bidding on projects in several States. The experience with the hydroseed product clearly shows that outreach associated with a single test of any product is completely inadequate and that outreach based on inadequate data could have a devastating impact on companies.

In addition, the presentation by Gonzaga University to the Task Force about creating the database included a very important slide regarding the herbicide 2,4 D. When the City of Spokane's tested a sample in 2015, it found that the PCBs were below detection. However, an independent study by Liu et al. in 2013 detected the sum of pentachlorobiphenyls (PeCBs) ranged from non-detect to $63,255 \pm 981$ ppq depending on manufacturer. This is another example that highlights importance of why redundant testing with multiple samples is necessary before any conclusions can be drawn. Otherwise, the task force is opening itself up to a significant amount of liability based on very inconclusive data.

We support using reliable data, but that does not dismiss our overall need for outreach and education.

Similar results were found when EPA (Xiaoyu Liu, US EPA Office of Research and Development, 2019) conducted testing of consumer products for PCBs in 2019. EPA tested 16 consumer products that were mostly yellow in color. Seven of them (44%) had detectable levels of PCBs. Four of the 16 products tested were printed products and only one of printed products, Wafers Box, had detectable levels of PCBs, but none of the detected PCBs was PCB-11. No other printed products which included two cereal boxes and a protein bar box had detectable levels of PCBs, including PCB-11. No attempts were made to determine what pigments were used in the consumer products, especially diarylide pigments. No additional work was performed to isolate the source of the PCBs in the consumer products.

It is unclear if the 1668 test was used for the EPA testing. The product testing by Ecology and the City of Spokane indicated iPCB in products they examined.

The results are shown Table 1

Table 1 Detected levels of PCBs in Consumer Products

| Product | Printed ? | PCB Detected | PCB-11 Detected | Reference |
|-----------------------|-----------|--------------|-------------------------------|--|
| Modeling dough | No | No | No | Inadvertent PCBs in Consumers Products Xiaoyu Liu, US EPA Office of Research and Development. 2019 http://srtrtf.org/wp-content/uploads/2019/08/2-PCB-Products-ISESISIAQ-082019-V6_SRRTTF.pdf |
| Art Paint | No | No | No | |
| Finger Paint | No | No | No | |
| Crayons | No | Yes | Yes (Yellow and Green Crayon) | |
| Sidewalk Chalk | No | Yes | Yes | |
| Wafers Box | Yes | Yes | No | |
| Art Chalk | No | No | No | |
| Chalk Paint | No | No | No | |
| Glue Sticks | No | No | No | |
| Foam Sheet | No | Yes | Yes | |
| Glitter Foam Sheet | No | Yes | Yes | |
| Sidewalk Paint Powder | No | | Yes | |
| Cereal Box | Yes | | No | |
| Cereal Box | Yes | | No | |
| Protein Bar Box | Yes | | No | |
| Cereal Bag | No | | No | |

This data clearly indicates that not all printed consumer products contain iPCBs and that the presence of them at detectable concentrations indicates that additional work needs to be performed to gain a better understanding of the source of the iPCBs. Until a full understanding of all sources of iPCBs in consumer products as well as the prevalence of them is developed, any

“education” campaign cannot be launched as it has the very real possibility of spreading misinformation and causing angst among consumers without any real merit.

We also want to use reliable data and 1668 testing protocols.

Lobbying EPA to Revise TSCA Limits for iPCBs

The proposal is not clear as to how the project will result in the lobbying of EPA to reduce the allowable levels of iPCBs in pigments and inks. One important question that needs to be explored is the legality of using these grant funds to lobby EPA to revise a regulation. There are strict laws that govern what organizations need to do in order to lobby a government agency.

Asking for administrative change is allowed without limits - it is not actually lobbying. The Lands Council has a limit of 20% of our budget for legislative lobbying, which we would not come close to exceeding.

The proposal also does not speak to the concentration ranges of iPCBs in pigments or inks nor does it establish an “acceptable level” of iPCBs in order to lobby EPA to impose. Given the prevalence of PCBs, setting an acceptable level of zero is plausible or practical. Banning certain pigments that do not pose any recognized hazard to human health or the environment cannot be supported without any direct evidence of such hazards.

This is why we want to work closely with industry as we seek to lower the allowable limits in products containing iPCB's. From conversations it seems lowering from 50 ppm to 0.1 ppm may be very doable. The health studies about some congeners of PCB's being less hazardous to humans or the environment are ongoing, but we do know that PCB limits are based on total PCB's and no agency has said that certain PCB's are safe. Currently all PCBs are treated equally and it is unlikely that EPA would be interested in taking on such an extensive research effort. Perhaps this is a lobbying effort that the pigments, inks and paints industries would be interested in collaborating with the Task Force.

It is important to note that TSCA requires pigments to have an average PCB concentration of 25 ppm or less and to not exceed 50 ppm at any time. What gets overlooked in this requirement is that to maintain compliance, the concentration of PCBs in pigments needs to be far below 25 ppm to allow for compliance. A pigment manufacturer cannot provide pigments with a concentration range of 25 to 50 ppm as they will be out of compliance. Since pigments are added to inks in a diluted form, the concentrations of iPCBs in inks will be significantly less than 25-50 ppm.

The challenge is that TSCA allowable limit in products (50 ppm) is orders of magnitude more than WA State's current water quality standard (170 ppq).

Procurement Limits

The proposal references the using the procurement limits established by HP or Apple as a component of either the education aspect or having EPA set them as a revised TSCA limit. The proposal does not clearly establish how these limits are to be incorporated into the project.

It is important to understand whether the procurement limits set by HP or Apple are effective before they can be recommended as a universal requirement. It needs to be determined if these limits are purely aspirational or if they are being achieved in practice. The scope of the products that they apply to needs to be better understood as well as how they are being enforced along with the mechanisms being used to demonstrate compliance. These are all critical questions as the HP representative mentioned this at the October 2019 conference that the policy was not being enforced.

HP and Apple were examples of companies who voluntarily reduced their limits. The iPCB/TSCA workgroup has this as a research project for Gonzaga to conduct. If the TSCA limits were revised, there would be a timeline and process for enforcement.

Items Requiring Clarification

Regarding the actual contents of the proposal, we have the following comments/questions:

- Road paint slide – we are surprised to see a coating highlighted in the slides when the proposal discusses inks and pigments and not paints. ACA needs a confirmation whether this proposal or resultant work products will include paints? It is important to note that the yellow road paint identified on Slide 2 is actually the better of the two products tested since it has a much lower overall iPCB content.

Road paint is an example of a product that where choices are available to highlight products that have a lower iPCB content. Our experience with WADOT indicates this can be educational as well as successful at reducing iPCB's that can make their way into the river.

- Question – what does “Limit redundant testing of PCBs in products” –mean?

This statement can be removed, as you point out that more testing is sometimes warranted.

- There seems to be a typo in the Task 2: Create a Toolkit section:

“Create and provide these entities with the tools and support to build public awareness, educate the supply chain, and join with a national effort to reduce allowable limits of PCB's in products.” – note this sentence just ends.

The proposal does not contain any information on how success for any three of the identified outcomes is to be measured. It needs to be in terms of actions taken that results in the reduction of iPCBs being discharged to the Spokane River and how that is to be measured. It cannot be a simple list of organizations that have been contacted as part of the program.

The long term measurement of success is a reduction in PCB's entering the river. Shorter term steps in meeting that strategy are working with entities across the country to inform and work to change TSCA limits. For example if printer inks were found or developed that had much lower levels of PCB's, that would be a measurable success toward reducing discharges to the river.

Summary and Conclusion

The proposal is focusing on iPCBs in inks and pigments, which represent an extremely small fraction of the contribution of PCBs to the Spokane River. The predominant PCB being released from inks and pigments is PCB-11, which does not appreciably bioaccumulate and poses little risk, if at all, to human health and the environment.

A better use of the limited grant funds would be better spent addressing the food that is being used to feed the fish at the fish hatcheries. It is well understood and widely known that the fish food being used is contaminated with PCB's and a much better use of grant money would be to focus on a project that will eliminate the contamination in the fish food. This would seem to be critical issue as the fish are used to determine if the water is impaired and it appears that the amount of PCB from the food in the fish tissue is subtracted out of the test results. However, that is a moot point as the fish are accumulating PCBs directly from the food in their diet while they are being raised.

My understanding is that fish being sampled by Ecology do not include hatchery fish. But, working with WDFW to reduce the PCB's in fish food used at the hatchery is also important.

In closing, we believe the proposal lacks substance and has the potential to cause more harm than good given the incomplete data set of information on products containing iPCBs, the conflicting test results, and liability exposure to the Task Force. Since inks and paints have been identified as part of the Ecology Safer Products program and the outcome of the process is still being defined, we are deeply concerned that the implied outcomes associated with this project could end up in or conflict with the Safer Product program, we do not support and will likely not contribute to this this project.