Washington State Departments of Ecology and Health
PCB Chemical Action Plan Advisory Committee Meeting #3
Meeting Notes - April 28, 2014

Committee Members

On phone: Robbert Bryce, Rosalind Schoof, Sandy Phillips
In person: Dianne Barton, Jenee Colton, Brandon Housekeeper, Nancy Johns, Ken Johnson, Doug Krapas, Michelle Mullin, Heather Trim, Laurie Valeriano, Dirk Wassink,

Interested Parties

In person: Carol Schroeder, Pete Hildebrandt, Lincoln Loehr, Nancy Uding

Staff

In person: Holly Davies, Beth Gill, Carol Kraege, David McBride, Barbara Morrissey, Gary Palcisko, Kasia Patora, Kara Steward, James White

Purpose: Get input on which recommendations should be taken forward to agency management

Holly Davies gave an overview of the changes to the draft PCB CAP since the last meeting.

Summary and Recommendations were added to the beginning and Opportunities for Reduction for each source were added in the Sources section.

The estimates for transformers and large capacitors were lowered and Appendix F was updated. This was based on talking to utilities and non-utility owners of equipment. The old estimates were based on estimates in Puget Sound Toxics Loading Study and the new estimates are lower for several reasons including the updated information on the numbers of transformers, the knowledge that Askarel transformers were not common in Washington, and new leakage rates based on lower concentrations of transformers in Washington and not PCBs/unit.

We split lamp ballasts from other small capacitors as suggested in the last meeting.

We added information from EPA on current inadvertent generation from manufacturers' reports in text and Appendix E. Most were not very informative due to confidentiality, but the majority dealt with pigments and dyes.

We added Information Dale Norton presented to the advisory committee on pathways for PCBs around the state and reordered some of the wildlife sections to flow better.

We added more on transformers and other electrical equipment regulations to TSCA summary.

We are still working on adding information on the King County study on Lake Washington and shredder waste.

Kasia Patora presented information on the economic costs for some options.

She explained what monetary values we have, which ones are a work in progress, and sought input on how to improve the estimates.

A. Develop and Inventory of PCB Electrical Equipment and Require Disposal Plans

- Costs are much higher.

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B. Complete Change-Out and removal of Old units

- Cost is significantly higher than the $776 estimated. Heather will try to gather data. Estimate is for reporting cost (contextual costs are included). Should contact WA State Utilities for breakdown of costs.
- Still looking for information on capacitors. Large capacitors are not likely to be with utilities, so we don't know as much about them.

C. Test for and remediate PCB Containing Materials in Schools

- Underlying average number of lights in pilot study schools (survey out of New York).
- Interior/exterior remediation is for caulk only and are labor inclusive #s. Is caulk also used in other construction (wood) aside from masonry? One estimate is part of window replacement.
- One data set is public only schools and another is both.
- PCBs stopped being used in caulk in early 70's. There are outliers due to lag and PCBs coming from other countries.
- Interior is removal, external is encapsulation.
- Comprehensive testing is annually depending on how many schools there are. The hope is it shouldn't be an ongoing project because it should be cleaned up.
- What is intent of this project? This is to decide if ECY should use cleanup money, $ from school funding, $ from leg, etc.
- Soils: how is it getting into soils – leaches from caulk. There are certain hot spots of PCBs traced back to building or sidewalk caulk.
- Transformers and light ballasts are leaking – interior air quality levels of PCBs are quite high. Sampling would be part of a program where schools would be prioritized. High levels of PCBs in paint have prevented mold. Paint sampling could be looked at. Paint has high interior levels – is that part of interior remediation? Have not been able to estimate cost. Will work on something on cost for dealing with paint not specific to PCBs. Encapsulation doesn't work for paint – hasn't been proven to be effective at removing emissions of PCBs. Regulations require anything over 50 ppm amount to be removed.
- Research costs are included but actual testing (sampling) costs are not included.
- Asbestos plan: there may be synergy with that – may want to call school districts. Same could apply to lead based paints.
- Kasia will check on average cleanup standard. Nancy sent inventory of all school buildings (~8,850). Data has only been collected for 2-3 years. Not mandatory to have every school listed or to provide a certain level of info – large holes in data. There were some inaccurate dates. Significant # of schools have taken light ballasts out. 295 school districts (about 4,000 of the buildings are portables). Many portables have been recycled from 1920s – 1960s.
- How were assumptions derived if there is so much that is unknown? This was based on testing from other states. There are recent examples of PCB light ballasts in other states. There is not a comprehensive inventory in WA. Leaking ballasts are a health problem, but is possibly not a problem in WA. Possible recommendation is to look at our schools for light ballasts, and remediate before they

become a problem. Caulk is base on global studies (Boston, New York, Switzerland studies). If we are very uncertain, more investigation may be required. Where we are very certain, stronger recommendations would be made. Uncertainty will guide recommendations.

D. Test and Remediate PCB-Containing Materials in Masonry Buildings

- Estimate includes all masonry buildings in state with PCBs, not just schools. Duwamish was one of the studies.
- What is the figure for schools alone? The range is huge. If number is relatively large, it would be best to determine prioritization. Should do exposure studies prior. No studies in WA, but studies in other areas. Need to understand what exposures are related to (caulk, ballasts, etc.). Indoor and outdoor air sampling should also be done. Duwamish study looked at indoor.
- How does $712 per cubic meter compare to just building a new school?

E. Develop Best Management Practices for Demolition of Industrial Buildings

- Start at basic level of education on disposal of PCBs.
- Grinding it out from windowsills could cause it to be more airborne. PCBs end up migrating into other materials. PCB caulk and paint can go to a SW landfill. If caulk is detached, it is a different story.

F. Learn more about what products contain PCBs and encourage the use of processes that don't inadvertently generate PCBs.

- Costs are ECY's.
- Lower chlorinated are less persistent, but still persistent per state rule.

G. Environmentally preferable purchasing for state agencies

- No cost is assumed. State doesn't have to do this if it's cost prohibitive.

H. Continue monitoring and cleanup activities

- Typical site cost regardless of who's paying. This is an example of ongoing work at existing sites – this does not include administrative costs. Internal water bodies are not included. Soil assumptions will be included in draft. Carol will provide an example of a higher cost PCB river cleanup.
- This is representative of the status quo.
- Analytic costs for source control overlaps with WQ criteria. Money doesn't go very far when you need upland controls.
- Sense of scale is helpful: intervening is expensive, but doing it early is less expensive than after it is released into the environment.

Discussion on which Recommendations should be taken forward

We need to consider that there is a lot we don't know when moving forward with recommendations and we need to consider the range of options from no action to complete elimination.

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1. Transformers and large capacitors
    - If data on releases is accurate, no need to spend a lot of time on this. If you have a spill, there is an obligation to clean it up. As table shows, there is a large release and is worth a discussion of phase out over time. Holly has pictures from an old report that can be added.
    - Colleges as recent as 2005 still had PCB canisters hanging from electrical lines in utility tunnels. They were removed when upgrade was already happening, but they wouldn't have been replaced normally if that hadn't occurred. Cost will be significant.
    - Need better data on costs associated with developing an inventory. Develop understanding of what structure would look like that determines costs. Is there any way we can find out how many are out there? If we had authority to create a state database, we would know how many.
    - Who is exposed and what is the level of the problem? Some are due to accidents (hitting a pole) and some are slow leaks. Difficult to say how much. There are too many downstream.
    - Need to refine costs and numbers.
    - There should be some flexibility on last bullet (option of complete phase out). The highlighted options are the ones being suggested.
    - Does MTCA funding cover this? Replacing publicly owned equipment might be.
    - Some equipment has to be taken off line and taken to shop. It creates outages for customers, so it's not very easy and costs a lot of money. There could be an inventory of older equipment that was untested instead of everything. This option needs to be refined with better numbers.

2. Building materials in schools (paint, caulk, lamp ballasts)
    - Sample paints and caulks to get estimate in urban areas, not just schools.
    - Develop cost for legislative study bill. Then prioritize what the most important exposure pathways.
    - Other public buildings especially with kids like libraries, community centers, child care facilities? What grades? Should younger ages be looked at beyond K-12? Different funding would be needed for private pre-schools.
    - Energy retrofit – could #s be run to see if it's possible for public buildings?
    - Language needs to be included about funding of removal of ballasts that are likely to have PCBs in schools and public buildings. Should look at those not labeled as PCB free or by date.

3. Caulk
    - Voluntary best management practices have a long track record. It is easier for a group to start pushing voluntary actions toward mandatory actions. Unfunded requirements for schools are an issue.
    - Many people working on demolition have no understanding of PCBs. Starting with an educational approach on handling is a step forward. If there is pushback or no movement, there may be a need for some compliance. There is a way to phase the recommendations. The last extreme option should still be included as an eventuality in the process.
    - Figure out where PCBs are already on the ground where they are actively being abrased so something can be done about it.

- Educational component similar to lead based paint and asbestos in buildings being purchased. Holly will work with Dirk on BMP recommendation.

4. Inadvertent generation (new PCBs in new products)
    - Good to have a ban as a possible outcome of testing. Instead of testing, can we require product manufacturers to report? Having content identified on a MSDS sheet or existing way to identify. DES has a calculator to establish environmentally preferably purchasing.
    - Phase out 70 chemical processes that lead to inadvertent PCBs. Look at processes first. Instituting a ban isn't productive – more efficient to understand generation processes.
    - Needs to be linked to relative potency in fate and transport. Need more info to understand relative risk on individual congeners.
    - Call-out challenge on recycled materials from other countries (motor oil). Certain varieties of motor oil have less PCBs – that could be made clear to purchasing entities.
    - NW Green Chem Center – are they going to look at PCBs? They are just forming and are too new, but hope it will become a resource.
    - TSCA reform: Chemical Safety Act – doesn't include language re: inadvertent generation of PCBs. Larger stakeholder effort would be helpful to get it included.

5. Other
    - Storm water: not sure what recommendation should be, but would be good to highlight as a pathway. Could be pretty easily done. We have costs for storm water treatment. Puget Sound Toxics Loading Study breaks it out. Can't do much about forest runoff. Should be broken down into categories and geographic context to determine what we can/can't focus on.
    - New end-of-pipe treatment technology: those who are trying new things deserve support.
    - Landfills: potentially huge source – could sample leachate for PCBs. Look into California studies. Look at O&M (cheaper options than retrofitting).
    - Contact FDA to update food safety guidelines.

Final Discussion

Costs, recommendations and comments will be refined for discussion on final draft recommendations. Hope to finish with one more meeting. Send wording suggestions to Holly. Holly will send a follow-up email with a deadline for final comments. Hoping to get draft out for public comment in the summer.