SPOKANE RIVER
REGIONAL TOXICS TASK FORCE

COLLABORATION INNOVATION PROGRESS

INLAND EMPIRE
PAPER COMPANY
Papermakers since 1911.

Northwest
Green Chemistry

OECD Workshop
February 3, 2020

Recycling of Paper Products Contaminated with PCBs in the Inks and Pigments

U.S. Federal Regulations

SUBCHAPTER R - TOXIC SUBSTANCES CONTROL ACT, PART 761

- Manufacturing and processing of PCBs was banned under TSCA in 1979
- …pigments that contain 50 ppm or greater PCB may be processed, distributed in commerce, and used in a manner other than a totally enclosed manner until January 1, 1982...*40 C.F.R. § 761.3 (g), Reserved after 1999*
- The concentration of inadvertently generated PCBs in products leaving any manufacturing site or imported into the United States must have an annual average of less than 25 ppm, with a 50 ppm maximum" *40 C.F.R. § 761.3 (1)*

Pigments are Found in Many Products

Inland Empire Paper Company (IEP)

- Manufacturing specialty paper products since 1911
- orld
- 91
- d paper

PCB Regulatory Paradox

Reference	PCB Concentration (ppm)	Magnitude Difference
U.S. TSCA Allowance	50 (max.)	----
*WA State WQS (7 ppq)	0.000000007	7,142,857,143
Spokane Tribe WQS (1.37 ppq)	0.00000000137	38,461,538,462
IEP's Effluent	0.0000024	20,833,333

*7 ppq (parts per quadrillion) = 7×10^{-15} = 0.000 000 000 000 007

Limited Solutions

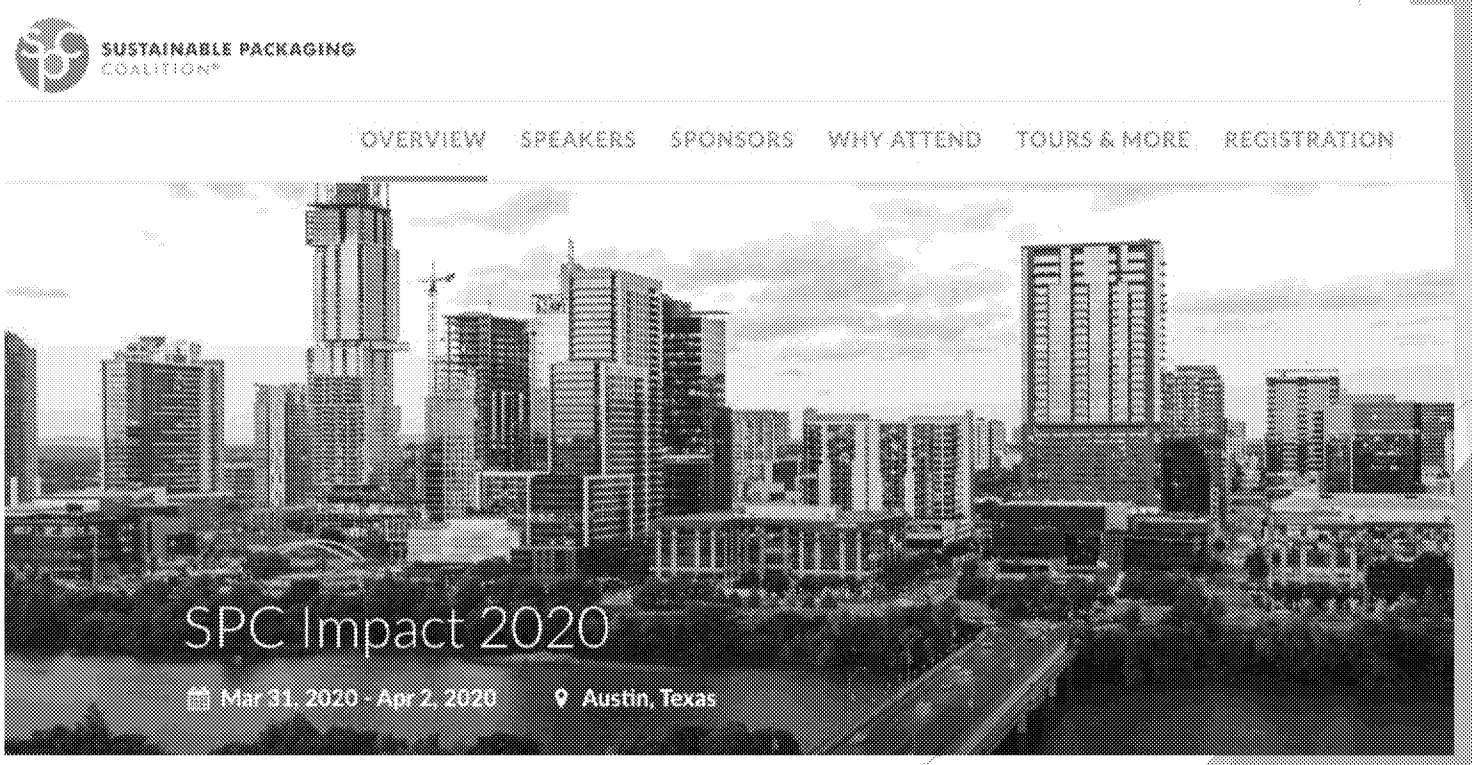
- IEP has most advanced water treatment technology in the world
- Remove and destroy most of the PCBs
- Insufficient to achieve WQS
- Elimination of recycling may be only solution
- However, does not solve the PCB problem!
  - PCBs in paper will continue to exist
  - Likely find other pathways into the environment
  - Landfill, waste-to-energy, etc.

Potential Solutions?

- Regulatory/Policy:
  - Perform risk assessment of iPCB congeners
  - Do not regulate lower congener PCBs
  - Regulate only the 12 Dioxin like PCBs
  - Establish lower TSCA thresholds
  - Rulemaking to bring CWA & TSCA regulations on PCBs into conformity, if environmental or health risk is demonstrated
  - Provide NPDES permit Offsets/Exclusions for iPCBs
  - Encourage End-Users to use lower or non-chlorinated containing products (Publishers, Printers, Packaging, State's, etc.)
  - Incentivize competitive marketing advantage with use of non-PCB containing products
  - Other Regulatory/Policy Solutions?

To Better Understand the Issue

- Create cradle to grave, regulatory, environmental, regional, and economic systems map to understand movement of iPCBs, gaps in regulation and compliance, and where to intervene for greatest impact
  - Create a systems map that identifies roles and responsibilities of industry and government agencies in relation to iPCBs
  - Allows comparison across agencies and categories for a product, product class, or chemical of concern
  - Could be modeled after life cycle analysis so we see how iPCBs are handled throughout the life cycle, regulatory requirements, and where intervention occurs to mitigate issues
  - Provide big picture of issue to consumers
  - The visualization could also address total cost of ownership of products since producers do not pay the price of negative externalities, often this is paid by the taxpayer in remediation, mitigation, source control, and other pollution prevention and clean up strategies
    - It should be possible to target specific chemicals
    - Demonstrate the health and environmental impacts

Change Brands' Policies

- Raise awareness among brands of iPCBs in pigments, inks, and packaging
- Increase adoption of voluntary corporate policies and implement lower limits
- Create workbook for Brands presented at the Sustainable Packaging Coalition's Conferences to gain traction