National Tribal Toxics Council

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March 26, 2014

Jim Jones, Assistant Administrator
Office of Chemical Safety and Pollution Prevention (OCSPP)
USEPA Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue N. W.
Mail Code: 7101M
Washington, DC 20460

RE: NTTC Request for EPA to Investigate PCB Exposures to Tribal Communities from Excluded PCB Products

Dear Assistant Administrator Jones:

Thank you for your continued support of the National Tribal Toxics Council's (NTTC) role in the Office of Pollution Prevention and Toxics (OPPT) programs on issues related to chemical safety, toxic chemicals, and pollution prevention. Among the key issues that the NTTC is focusing on are ways to reduce tribal exposure to toxic chemicals in Indian Country.

The NTTC has determined that polychlorinated biphenyls (PCBs) are a high priority issue for tribes. The NTTC requests that EPA take a targeted approach to evaluate environmental and health impacts that excluded PCB product use and distribution has on tribal communities. It is EPA's trust responsibility to protect tribal health and natural resources therefore, investigation of tribal exposure to PCBs through first foods and consumer products warrants attention. The NTTC officially requests that EPA consider a screening-level analytical assessment or pilot project as a way to initiate an effort to characterize tribal health and natural resource risks associated with the use of the 50 ppm level for excluded PCB products and to determine if PCB policy revisions are appropriate for protecting tribal health and natural resources. If the investigation demonstrates that disproportionate risks are identified through EPA's efforts, the NTTC recommends that EPA develop a course of action to mitigate the risks, such as policy revisions to eliminate the use of the 50 ppm level for excluded PCB products.

PCBs are a high priority issue to tribes given the following concerns, recent research, and tribal input:

Concerns

1. Continued use of PCB-containing products is providing a pathway for continuing PCB release and related exposures through first foods and consumer products.
2. PCBs are not currently identified in EPA's Work Plan Chemicals document for review and assessment.[i]

3. The TMDL target for Total PCBs in impaired water bodies is being set at concentrations three or more orders of magnitude lower than the current TSCA 50 ppm threshold for excluded PCB-containing materials.

Key Findings from Recent Research

1. **PCBs in the environment are not all derived from legacy sources.** "Recently, manufacturing by-product PCBs have been identified in wastewater, sediments, and air in numerous locations. They have also been positively identified in testing of new products colored with such pigments, so it is clear these PCBs are not occurring as a result of legacy commercial mixtures."[ii]
2. **There is a conflict between the 50 ppm PCB allowed in imported products and water quality standards that are protective of subsistence lifeways.** Rodenburg, Guo, Du, and Cavallo (2010) have demonstrated that PCB 11 is present in paper and cardboard materials and have provided evidence that loads of PCB 11 to waterways in the United States are likely to present a significant obstacle to achieving PCB water quality standards throughout the United States. They state that although inadvertent production of PCBs is not banned in the United States, it will increasingly be subject to regulation.[iii]
3. **Exempt processes are a source of PCB and enforcement of current import limits is lacking.** Shang, et al. (2014) show testing of yellow pigment products from China showed some dyes had PCB levels 20x higher than the standard of 50 ppm used in commercial diarylide or phthalocyanin pigments regulated by EPA. PCB 11 was the predominant congener in most yellow pigments, which even contributed to more than 90% of PCBs in diarylide yellow pigments. Further investigation on the risk of PCBs in the yellow pigments found that the WHO-TEQ values were at high levels, suggesting they might pose a potential risk to humans and the environment.[iv]
4. **The toxicity of individual congeners is unknown and poses risks.** In their conclusion, Rodenburg et al. (2010) state that PCB11 may exhibit dioxin-like toxicity and reportedly produces neurochemical effects in rat cerebellar granule cells. Because it is less hydrophobic than heavier PCB congeners, it may be expected to have less bioaccumulation potential. They recommend that monitoring programs should measure all 209 PCB congeners in at least a subset of samples and should measure PCB 11 in all samples. Because PCBs in the United States and in many other countries are regulated as the sum of all 209 congeners, PCB 11 appears to be a significant problem that will require further study.[v]
5. **Recent analysis of the impact of PCBs on human health, development and behavior, even at low concentrations, need renewed scrutiny**.
    a. "Recent studies complement and add to the scientific data gathered over the last two decades that document health consequences associated with exposures to PCBs."[vi]
    b. Environmental Working Group's Comment Letter to EPA[vii] includes the following summary (with references) of latest research on the adverse effects of PCBs:
        i. adverse effects of PCBs on the neurodevelopment in infants and children
        ii. lower thyroid hormone levels during pregnancy in mothers with higher PCB exposure
        iii. infertility in daughters of mothers with high PCB exposure
        iv. fewer male children born to women with high PCB exposure
        v. smaller birth weight in children of mothers with higher CB concentrations
        vi. PCB effects on the immune system in young children – weaker response to vaccinations
        vii. smaller size of thymus in children born to mothers with higher PCB exposure
        viii. human epidemiological studies on PCB carcinogenicity
        ix. adverse effects of PCBs on the immune system and resistance to infections in marine mammals
        x. recent studies demonstrating PCB carcinogenicity in laboratory animals
    c. On the basis of sufficient evidence of carcinogenicity in humans and experimental animals, the [International Agency for Research on Cancer] Working Group classified PCBs as carcinogenic to humans (Group 1).[viii]

Tribal Input

1. The Affiliated Tribes of Northwest Indians' Resolution #14-17 "Urging the Environmental Protection Agency to Prohibit the Use of PCBs in any Amount in New Products" (attached)
2. Recent comments to the December 12, 2013 PCB Use Authorization Tribal Consultation.
3. "Recent studies complement and add to the scientific data gathered over the last two decades that document health consequences associated with exposures to PCBs."[ix]
4. The Confederated Tribes of the Umatilla Reservation comment to EPA Aug 20, 2010: "As to [text in EPA's Proposed Rule for PCB Authorized Uses] 'Reconsideration of the Use of the 50 ppm Level for Excluded PCB Products,' we ask that you reduce the level to zero. There is no adequate justification for maintaining the 50 ppm level for these products. Specifically, the CTUIR DNR supports the elimination of PCBs from all dyes, pigments and inks, and encourages EPA to adopt rules mandating such a requirement." [x]

As stated on EPA's website, "As research progresses, more will become known about the human health implications of PCBs and other contaminants found in the environment. However, enough scientific information is now available to warrant actions by health care providers, public health officials, and environmental organizations."[xi]

Please recognize that we understand EPA's resource constraints, and the need to evaluate emerging concerns associated with other chemicals. We also understand that although EPA has not identified PCBs as a work plan chemical, that does not mean that EPA would not consider PCBs for risk assessment and potential risk management action under TSCA, and other statutes, and that EPA will consider PCBs if warranted by available information. Therefore, based on the serious PCB health implications that have been documented from which subsistence communities are particularly susceptible; the 600+ PCB-related fish consumption advisories in the U.S.; the overwhelming concern of tribal nations from across the U.S.; and the unknown impact of using the 50 ppm level for excluded PCB products that may be contributing to tribal exposures and human health and natural resource risks; we believe that EPA should be compelled to explore the significance of PCB-related concerns expressed by the NTTC.

In speaking with your staff, we have discussed the possibility of a screening-level analytical assessment or pilot project as a way to initiate an effort to characterize tribal human health and natural resource risks associated with the use of the 50 ppm level for excluded PCB products. We would like to begin a dialogue with you to explore potential options for beginning this work.

Sincerely,

Dianne C. Barton, Chair
National Tribal Toxics Council

References

Attachment
Affiliated Tribes of Northwest Indians Resolution #14-17 "Urging the Environmental Protection Agency to Prohibit the Use of PCBs in any Amount in New Products"

CC:
Wendy Cleland-Hamnett, Director, EPA Office of Pollution Prevention and Toxics (OPPT)
JoAnn Chase, Director, American Indian Environmental Office
Caren Robinson, OCSPP Tribal Consultation Advisor
Nancy Stoner, Acting Assistant Administrator, EPA Office of Water
Matthew Richardson, Office of Water (OW) tribal coordinator (acting)
Elizabeth Southerland, Director, Office of Science and Technology (OST), OW
Elizabeth Behl, Director, Health and Ecological Criteria Division (HECD), OST, OW
Elizabeth Doyle, HECD, OST, OW
John Shoaff, Chief Liaison Branch, OPPT
Irina Myers, NTTC Project Officer, OPPT

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[i] "Public Health Implications of Exposure to Polychlorinated Biphenyls (PCBs)" http://water.epa.gov/scitech/swguidance/fishshellfish/techguidance/pcb99.cfm#socio

[ii] Nonlegacy PCBs: Pigment Manufacturing By-Products Get a Second Look, 8-page in Environmental Health Perspectives by Elizabeth Grossman, Mar 2013 http://www4.nau.edu/itep/nttc/contaminants/docs/PCBs_ProductsEHPMar2013.pdf

[iii] Rodenburg L.A., Guo, J., Du, S.Y., Cavallo G.J. 2010. Evidence for unique and ubiquitous environmental sources of 3,3'-Dichlorobiphenyl (PCB 11). Environ. Sci. Technol. 44, 2816-2821.

[iv] Shang, H.T., Li, Y.M., Wang, P., Wang, T., Zhang, H.D., Zhang, Q.H., Jiang, G.B. 2014. The presence of polychlorinated biphenyls in yellow pigment products in China with emphasis on 3,3'-dichlorobiphenyl (PCB11). Chemosphere. 98, 44-50.

[v] Rodenburg L.A., Guo, J., Du, S.Y., Cavallo G.J. 2010. Evidence for unique and ubiquitous environmental sources of 3,3'-Dichlorobiphenyl (PCB 11). Environ. Sci. Technol. 44, 2816-2821.

[vi] EPA's Public Health Implications of Exposure to PCBs Website http://water.epa.gov/scitech/swguidance/fishshellfish/techguidance/pcb99.cfm#socio

[vii] Environmental Working Group's Comment Letter to EPA, Summary of latest research on the adverse effects of PCBs http://www4.nau.edu/itep/nttc/policy/docs/EWGCommentToANPRMonPCBsAdverseHealthEffects.pdf

[viii] Carcinogenicity of PCBs and PBBs, 2-page by the International Agency for Research on Cancer, Mar 2013 http://www4.nau.edu/itep/nttc/contaminants/docs/IARC_AssessmentofPCBs2013.pdf

[ix] EPA's Public Health Implications of Exposure to PCBs Website http://water.epa.gov/scitech/swguidance/fishshellfish/techguidance/pcb99.cfm#socio

[x] Confederated Tribes of the Umatilla Indian Reservation, Department of Natural Resources comment to EPA http://www4.nau.edu/itep/nttc/policy/docs/UmatillaCommentToANPRMonPCBs.pdf

[xi] EPA's Public Health Implications of Exposure to PCBs Website http://water.epa.gov/scitech/swguidance/fishshellfish/techguidance/pcb99.cfm#socio