# The Seventh Annual Workshop on Brominated Flame Retardants (BFR) in the Environment

# June 13-14, 2005

# National Institute of Standards and Technology Gaithersburg, MD

## Monday, June 13th, 2005

8:30 – 9:00 a.m. Coffee and Registration

9:00 a.m. Welcome and Opening Remarks Dr. Willie E. May, NIST

9:15 a.m. Keynote Address Dr. Andreas Sjödin, CDC

Human exposure to brominated flame retardants

#### **Human Exposure**

**10:00 a.m.** Polybrominated diphenyl ethers (PBDEs) in fish sold in Washington State grocery stores

J. VanDerslice, Denise Laflamme, A. Hailu and D. McBride

**10:20 a.m.** Polybrominated diphenyl ethers (PBDEs) in farmed salmon (Salmon salar) from Maine and

Eastern Canada

Susan Shaw, A.Bourakowvsky, D. Brenner, D.O. Carpenter, K. Kannan and C. Hong

10:40 a.m. Coffee Break

11:00 a.m. Polybrominated diphenyl ether (PBDE) flame retardants in USA Human blood, milk, food and

environmental samples

Arnold Schecter, O. Päpke, J.J. Ryan, R. Rosen, L. Birnbaum, D. Staskal and K.C. Tung

**11:20 a.m.** Associations of PBDE levels in breast milk with food consumption and indoor dust concentrations

N. Wu, Tom Webster, T. Hermann, O. Päpke, R. Hale, E. Harvey, M. LaGuardia and E. Jacobs

11:50 a.m. Case study of California family shows high PBDE levels in toddler and 5-year old: Is this the

norm? Is this the house dust?

**Douglas Fisher,** K. Hooper, M. Athanasiadou and Å. Bergman

12:10 p.m. Lunch (NIST cafeteria, on your own)

## Flame Retardants in Consumer Products

1:30 p.m. Measurements of the photolytic breakdown of decabromodipheny ether in plastics

Marc Nyden, H. Stapleton and N.G. Dodder

1:50 p.m. The release of brominated compounds from brominated flame retardant oligomers

Bruno Gouteux, M. Alaee, S. Mabury and D. Muir

**2:10 p.m.** Furniture flame retardancy partnership update

Clive Davies and Kathleen Vokes

2:30 p.m. Coffee Break

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### Monday, June 13th, 2005 - - Continued

#### **Analytical Methods**

**3:00 p.m.** Congener specific polybrominated diphenyl ether (PBDE) identification of four

Technical flame-retardant mixtures, DE-71, Bromkal 70-5DE, DE-79 and Bromkal 79-8DE

Mark La Guardia, R.C. Hale and E. Harvey

**3:20 p.m.** Optimized GC/Low resolution isotope dilution MS for PBDE Analysis: Interferants and

Limitations

Luke Ackerman, G. R. Wilson and S. L. Simonich

**3:40 p.m.** *Congener-specific determination of HBCD by HPLC/APPI-MS/MS* 

Sean Backus, S. Batchelor, M. Alaee and L. M. Hewitt

**4:00 p.m.** New Standards available from Cambridge Isotope Labs

**Ben Priest** 

4:20 - 5:20 p.m. Poster Social

(Presenters stand by their posters)

5:30 p.m. Buses back to hotel and/or Shady Grove Metro Station

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### Tuesday, June 14th, 2005

9:00 a.m. Introduction Dr. Stephen A. Wise, Analytical Chemistry Division, NIST

9:15 a.m. Keynote Address Dr. Robert Letcher, National Wildlife Research Centre

The state of understanding and summary perspective on the fate, toxicology and biological effects

of brominated flame retardants in the environment

**Toxicology** 

**10:00 a.m.** Congener-dependent distribution and excretion: a comparison of BDEs 47, 99, 100 and 153

toxicokinentics

Daniele Staskal, D. Bauer, J. Dilberto and L. Birnbaum

10:20 a.m. Coffee Break

10:50 a.m. Debromination of polybrominated diphenyl ether 99 in carp (Cyprinus carpio) Microflora and

microsomes

R. Benedict, H. Stapleton, R. Letcher, J. Baker and Carys Mitchelmore

11:10 a.m. In vivo and In vitro anti-androgenic effects of DE-71

Tammy E. Stoker

11:30 a.m. Lunch (NIST cafeteria, on your own)

**Environmental Occurrences, Fates, and Pathways** 

**1:00 p.m.** *Brominated flame retardants in the atmosphere of the United States* 

E. Hoh and Ronald Hites

**1:20 p.m.** Analysis and distribution of hydroxylated polybrominated diphenyl ethers (OH-PBDEs) in

environmental samples from areas of concern (AOC) in the Canadian Great Lakes

D. Ueno, C. Darling, G. Pacepavicius, Mehran Alaee, R. Letcher, A. Bergman, G. Marsh,

D. Muir and, S. Brown

**1:40 p.m.** Polybrominated diphenyl ethers (PBDEs) in fish-/product samples – Unusual patterns and

concentrations

Olaf Päpke and T. Herrmann

2:00 p.m. Hexabromocyclododecane in White-sided dolphins stranded on the northeastern U.S. coast

(1993-2003),

Aaron Peck, K.J.S. Tuerk, and J.R. Kucklick

**2:20 p.m.** *Uptake of PBDEs from complex sediment, soil and sludge matrices* 

Robert C. Hale, S. Ciparis, M. O. Gaylor, M. J. La Guardia and E. Harvey

2:40 p.m. Coffee Break

**3:10 p.m.** Concentrations of polybrominated diphenyl ethers (PBDEs) in an urban watershed in

southwestern Ontario, Canada

Sean M. Backus, J. Kraft, M. Konefal, N. Benoit, A. Dove and M. Alaee

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#### **Environmental Occurrences, Fates, and Pathways**

**3:30 p.m.** Biodegradation and product identification of 14C Hexabromocyclododecane in wastewater

sludge, sediment and soil

Jon W. Davis, S.J. Gonsior, G.M. Marty, U. Friederich, R. Hunziker and J. Ariano

3:50 p.m. Landfill leaching as an upstream source of polybrominated diphenyl ethers

Monica N. Danon-Schaffer, J.R. Grace and M.G. Ikonomou

**4:10 p.m.** Estimation of the relative importance of deposition and removal processes for PBDEs in Lake

Superior

Mark D. Rowe and J.A. Perlinger

4:30 p.m. Conclusions and Remarks Dr. Ronald Hites, Indiana University

Where do we go from here?