Toxics Use Reduction Institute Science Advisory Board Meeting Minutes
October 8, 2024
Virtual Zoom Meeting
10 AM

Members Present: Robin Dodson (Chair), Christy Foran, Rich Gurney, Denise Kmetzo, Heather Lynch, Ryan Bouldin, Alicia Timme-Laragy

Members not present: Helen Poynton

Program staff present: Heather Tenney (TURI), Karen Thomas (TURI), Hayley Hudson (TURI), Gabriel Salierno (TURI), Colin Hannahan (TURI), Sandra Baird (MassDEP), Nicole Moody (MassDEP), Paridhi Patel (TURI), Baskut Tuncak (TURI), John Raschko (OTA)

Others present: Liz Harriman (LCSP), Owen Jappen (ACC NAFRA), Carol Holahan (Foley Hoag LLP), Katherine Robertson (MCTA), Steve Scherrer (ACC NAFRA), Erin DeSantis (ACC), Jennifer Schlezinger (BU School of Public Health)

Welcome & Introductions

The chair noted that this meeting is being conducted remotely, consistent with *An Act Relative to Extending Certain State of Emergency Accommodations* signed by Governor Baker on June 16th, 2022. This allows the extension of the remote meetings under the Open Meeting Law until March 31, 2025. Board members and program staff were introduced, and visitors were asked to put their name and affiliation in the chat.

Approve June Meeting Minutes

There was a motion to review the June meeting minutes and there was a second. The minutes were available for review prior to the meeting. The minutes were approved with five in favor and two abstaining.

Change from Flame Retardant Law work to TURA work

TURI noted that this meeting represents a return to the Board's primary responsibilities under TURA: considering additions and deletions to the TURA Toxic or Hazardous Substance List and recommending designation of substances as "higher hazard" or "lower hazard". In March of 2023 the Board began work required under the MA Flame Retardants law. That work progressed through 9 meetings and was finished in June 2024. This meeting will cover two questions that return to the Board's origins: should Trans 1,2-Dichloroethylene (TransDCE) be designated as a "higher hazard" substance? And should "aryl phosphate esters" be considered as a category addition to TURA?

TransDCE

TURI presented an EHS Summary of TransDCE as well as work done using EPA's Computational Toxicology Tools and Quantitative Structure Activity Relationships (QSAR). Following this the Board discussed transDCE and its potential consideration as a higher hazard substance. TransDCE is already on the TURA list at regular reporting thresholds (25,000 lbs. manufactured or processed, and 10,000 lbs. otherwise used). If it were to be designated as a higher hazard substance, the threshold would be reduced to 1,000 lbs. A member noted that the EPA Risk Evaluations are far overdue, and perhaps more information will be coming out in 6-9 months. TURI will follow this. Vinyl Chloride was noted as a degradation product. Clarification was made that vinyl chloride is not on the TURA subgroup of 'more hazardous substances' because it was not reported when the original list of 'more hazardous substances' was created in 1999. The 'more hazardous substances' list initially drew from chemicals that had been reported under TURA up until that point and was a starting point for 'high hazard substances' designation.

One member noted that skin sensitization (one of the two available endpoints for QSAR) is not an endpoint we are as concerned about with regard to Trichloroethylene (TCE). It was noted that transDCE doesn't seem to be metabolizing into vinyl chloride to the point where vinyl chloride is accumulating in the environment. At this time, there doesn't seem to be enough data to recommend transDCE as a 'higher hazard substance.' Another member echoed the 'wait and see' approach to more data.

TURI pointed out that there are companies evaluating and adopting transDCE as a replacement for (TCE) and the TURA data would not necessarily show this because the transDCE usage is firstly a mixture and secondly the use would likely not trip the current TURA threshold.

A question was raised about MassDEP not having adopted the Provisional RfCs (reference concentration) developed by EPA. MassDEP responded by noting that the adoption is a longer-term process and hasn't happened yet.

Visitor Comments

There were no visitor comments.

Continued Discussion

In response to a question, TURI noted that transDCE is the easiest and fastest drop-in replacement for TCE. A question was raised how best to support companies considering moving away from TCE. TURI does have guidance noting the hazards of trans DCE as well as it's similarities to TCE and frequent pairing with HFEs (which meet the TURA definition of PFAS).

The Board wrapped up this portion of the meeting with a 'wait and see' approach for more data in the near future.

Aryl Phosphate Esters

TURI presented an overview of the organophosphates in general and the aryl phosphate ester group in particular. This group has been identified in recent studies for the neurotoxic effects of its members. There are data-rich members and data-poor members.

One member noted that the data-rich/data-poor situation is one that the Board has been dealing with. The Board could take a look at degradation/metabolism commonalities among members. Board members generally agreed that this category deserved a closer look and that it is not surprising that toxicity is seen given the structural similarities to organophosphate esters that have proven toxicities.

One member mentioned that it would be helpful to better understand whether neurotoxicity is an endpoint for which read-across data is generally good as read-across is better for some endpoints than others. Another member noted that for pesticides, neurotoxicity shows good read-across dependability.

One member commented that it would be very important to look at each member of a category like this since there may be less/more hazardous members. It was suggested that the Board consider each subcategory of aryl phosphate esters individually.

Members asked about previous categories of chemicals added to TURA and were reminded of PFAS and C1-C4-halogenated solvents.

Visitor Comments

There were no visitor comments.

Adjourn

There was a motion to adjourn and there was a second. The meeting was adjourned.

Handouts

Draft June Meeting Minutes for Board Review
Potential Category Aryl Phosphate Esters
Short Summary of the Broad Topic of Organophosphates and their Uses as Flame Retardants and Pesticides
TransDCE EHS Summary
ATSDR 2023: Toxicological Profile
EPA 2010: Toxicological Review of TransDCE
EPA 2020: PPRT Values for TransDCE
EPA 2020: Final Scope Risk Evaluation for TransDCE
California EPA 2018: Public Health Goals for TransDCE
NTP 2002: Toxicological Studies of TransDCE

DRAFT EHS Summary TransDCE

Zoom Chat *(*Lightly edited for clarity)
Steve to Everyone 10:30 AM
Steve Scherrer. NAFRA

Liz Harriman to Everyone 10:31 AM
Liz Harriman, Lowell Center for Sustainable Production, UMass Lowell

Gabriel Salierno to Everyone 10:31 AM
Gabriel Salierno, Toxics Use Reduction Institute

Nicole Moody, MassDEP to Everyone 10:31 AM
Nicole Moody, MassDEP

Jennifer Schlezinger to Everyone 10:31 AM
Jennifer Schlezinger, BU School of Public Health

Erin DeSantis, ACC to Everyone 10:31 AM
Erin DeSantis, American Chemistry Council

Owen Jappen to Everyone 10:32 AM
Owen Jappen, North American Flame Retardant Alliance

Katherine Robertson to Everyone 10:32 AM
Katherine Robertson, MCTA

Carol Holahan 10:33 AM
Carol Holahan, Foley Hoag, LLP