TUR Advisory Committee
Meeting Summary
September 27, 2018
Saltonstall Building
100 Cambridge Street, Boston
Conference Room A

Members Attending: Bill Judd (Industrial Compliance Group), Lucy Servidio (Capaccio Engineering), Elizabeth Saunders (Clean Water Action), Kathy Flannery (Department of Labor Standards), Andrew Goldberg (Attorney General's Office), Rebecca Weidman (Massachusetts Water Resources Authority [MWRA]), Gary Nedelman (Mexichem)

Others Attending: Katherine Robertson (Massachusetts Chemistry Technology Alliance [MCTA]), Erin DeSantis (American Chemistry Council [ACC]), Renée Lani (ACC FluoroCouncil), Bill Coyne (Coyne Law Office for ACC), Tricia McCarthy (Coyne Law Office for ACC), Susan Peck (MassDEP), Elizabeth Harriman (Toxics Use Reduction Institute [TURI]), Rachel Massey (TURI), Heather Tenney (TURI), Rich Bizzozero (Executive Office of Energy and Environmental Affairs [EOEEA]), Tiffany Skogstrom (Office of Technical Assistance [OTA]), Maia Rodriguez-Semp (OTA)

Welcome and Executive Director Update

The Executive Director welcomed members and attendees and stated that business associated with the minutes from April 4, 2018 would be handled if and when additional members arrived. Committee members were updated on the activity of the Administrative Council at the September 25, 2018 meeting. At that meeting, the agenda item "Phthalate Ester Category Policy" was not discussed and therefore would not be discussed at this September 27, 2018 meeting of the Advisory Committee. Also at the September 25, 2018 meeting of the Council, the Council voted to adopt the addition of the new Nonylphenol Ethoxylates (NPEs) TRI Category to the TURA list, maintaining required continuity with the EPCRA list.

Meeting Minutes from April 4, 2018

A motion to accept the minutes was postponed due to lack of quorum.

Introduction to Per- and Poly-Fluorinated Compounds

Before providing an overview of the topic, a representative from TURI opened the floor for Committee members to share current work or knowledge on per- and polyfluorinated compounds. The member from Capaccio Environmental Engineering briefly described work with Clean Harbors collecting material contaminated with PFAS following remediation efforts.

The TURI representative then provided an overview of the history and use of per- and poly-fluoroalkyl substances (PFAS) using the Interstate Technology & Regulatory Council's (ITRC) fact sheet titled "History and Use of Per- and Polyfluoroalkyl Substances" that was provided as a handout for members and attendees.

The Executive Director invited questions or comments before moving on to the next agenda item.

Update: TURA Science Advisory Board Work on Per- and Polyfluorinated Compounds

Representatives from TURI provided an overview of the draft "Per- and Poly-fluorinated Alkyl Substances (PFAS) Summary and Introductory Information" document dated September 2018 that was provided to members and attendees. It was noted that "Table 1: Chronic health effects" and "Table 2: Persistence, presence in the environment, and bioaccumulation" summarize the SAB's work as of September 2018 and that the SAB's examination of PFNA and PFHpA was still in progress. The draft document also includes regulatory context for PFAS substances in the U.S. and Europe.

Discussion:

A member commented that the chemicals marketed as replacements for PFAS currently on the market are not well researched, and asked what alternatives Toxics Use Reduction Planners should recommend.

An attendee commented that the ACC believes there is substantial evidence that PFHxA (perfluorohexanoic acid) has a much improved toxicology profile compared with long chain compounds and does not warrant being listed. The attendee stated that this evidence was provided to the SAB and that the SAB had not adequately taken it into account. The attendee went on to state that fire-fighting foams are now made with short chain compounds (C4 and C6), although the long chain foams are still out there. Massachusetts has a take back program from foams made with long chain compounds like PFOS and PFOA. The attendee attributed contamination issues to date to "poor fire-fighting practices."

A member asked for clarification from ACC about whether they believe PFHxA is "low risk" or "lower risk" than certain other PFAS. The member noted the example of n-propyl bromide as a case of a regrettable substitution. The ACC attendee responded that looking at a French agency analysis for tolerable daily intake shows it's better by 2 orders of magnitude.

A member asked that the attendee clarify whether the FluoroCouncil believes it's appropriate to include PFHxA in the same category with the longer chain compounds. In response, the FluoroCouncil attendee stated that they feel PFHxA is low risk and they do not believe it is appropriate to group PFHxA with the longer chain substances.

A member asked whether PFAS compounds would be simply proposed for listing, or whether there would be a proposal to both list them and designate them as Higher Hazard Substances (HHS). The member asked whether the non-HHS TURA reporting thresholds would be likely to lead to any Massachusetts facilities reporting PFAS.

A TURI representative stated that the SAB evaluated the substances individually, not in comparison to each other and had, as of September 2018, independently recommended PFOS, PFOA, PFHxA, PFHxSs, PFBA, and PFBS for listing based on the health endpoints. The TURI representative added that the SAB had considered the ACC's evidence regarding PFHxA and found it appropriate to recommend PFHxA for listing. The TURI representative reminded members and attendees that the SAB reviews health endpoints of substances and categories of substances for listing and delisting purposes and that it does not set standards.

The Executive Director stated that the ACC had been very helpful at the SAB meeting during which PFHxA was discussed and that the SAB had voted unanimously, based on health endpoints including those provided by the ACC, to recommend PFHxA for listing.

A member asked about whether there are any federal reporting requirements for these chemicals.

A TURI representative stated that the EPA and MassDEP are focused on developing drinking water standards and that PFAS have not been added under TRI. The TURI representative pointed out that the document is an introductory summary, not a formal policy analysis, and does not include information on the use of PFAS or alternatives information.

A member commented that this issue raises the concern about regrettable substitutions; specifically that it remains largely unclear whether short chain PFAS substances are preferable substitutes to longer chain PFAS substances.

Discussion followed about other actions that have been taken to address PFAS substances. This included a discussion of Washington's new legislation on fluorinated firefighting foams, as well as a discussion of the New York Pollution Prevention Institute's alternatives assessment scoping study for fire-fighting foams, which identified a large number of potential non-fluorinated options. It was noted that military specifications currently require the presence of fluorine. There was also discussion of New York's requirement of remediation if an entity releases one pound of specified PFAS. There was also a brief discussion of concerns about PFAS in compostable materials. The concern is that PFAS in compostable materials become contaminants in the compost itself; they are then taken up into plants, and from there can become part of the food chain.

A TURI representative stated that the SAB will finish the examination of PFNA and PFHpA, then move onto evaluation of phosphonic and phosphinic acids and GenX (fluoroethers) as well as overarching conversation about the PFAS category as a whole. It was clarified that the SAB started its evaluation by examining degradation products, since these are being found in the environment. Once compounds break down into the carboxylic and sulfonic acids, they do not disappear from the environment under environmentally relevant conditions.

An ACC industry representative in the audience stated that industry does not support grouping PFAS as a class with long and short chain substances in the same category, and suggested that each chemical should be regulated individually.

A Committee member commented to thank the SAB for taking on the issue of PFAS. This comment led another member to add that water supplies in Massachusetts have been affected with some communities requiring bottled water.

A member asked whether other entities, such as the Warner Babcock Institute or UMass Lowell researchers, are working on identifying or developing new alternatives.

After it was mentioned by a TURI representative, a member requested that a resource (an online map showing PFAS contamination identified under EPA's UCMR 3 testing) from the Environmental Working Group be circulated after the meeting.

Update: Response to 2016 Nanomaterials Request

A representative from OTA gave an update on the information about use of nanomaterials in Massachusetts generated by the survey that has been public since December 2017. A total of 13 respondents selected "Yes" to the question "Do you manufacture in Massachusetts?" Additional individuals have responded as "No" to that question and filled out other parts of the survey and additional individuals have opened the survey and not provided response. The OTA representative stated that the survey will remain open but that significant additional change to the information it provides is unlikely.

The representative from OTA also provided details about a conference call between TURA program staff and the American Chemistry Council's Nanotechnology Panel. On July 9, 2018, the TURA program engaged in a conference call with the ACC to follow up on the offer of nanomaterial resources, services and expertise during the April 4, 2018 TURA Advisory Committee meeting. On April 30, 2018, following up on ACC's offer, the TURA program sent a request for information to the ACC on the nature and scope of nanomaterial use in Massachusetts, methods used by ACC members to identify and communicate the presence of nanoscale materials in products or mixtures, examples of how businesses in Massachusetts or elsewhere are protecting workers, communities and the environment from exposures and releases of engineered nanomaterials, specific Responsible Care guidelines for the handling of engineered nanomaterials, proven technologies and engineering controls to prevent worker exposures and releases to the environment, and best practices for disposal of engineered nanomaterials. During the conference call, the ACC's Nanotechnology panel representative suggested that the TURA program could use resources such as the MassDEP website, LinkedIn, job search sites like Indeed and Simply Hired, the NanoWerk listing of companies, and the Nano Science and Technology Institute's database, to gather information on companies using nanomaterials.

On the call, the ACC representatives clarified that they do not have a database or method of identifying nanomaterials companies. The ACC was also unable to provide methods for determining whether nanoscale materials are present in products. Regarding guidelines for health and safety, the ACC representative recommended using NIOSH guidelines and clarified that there are no specific Responsible Care guidelines related to nanomaterials.

The OTA representative went on to give an update on the recent EPA Information Gathering Rule on Nanomaterials in Commerce. OTA spoke with EPA in June to determine whether EPA has received information from Massachusetts companies. As of June, EPA reported receiving information from three companies nationally and none from Massachusetts. The reporting deadline for this rule was August 14, 2018 and OTA has not received an update on additional reports.

The Executive Director commented that despite efforts to gather information in order to respond to the original 2016 request for policy development on nanomaterials, due to a number of factors, the program remains largely unable to characterize the use and presence of nanomaterials in the Commonwealth. The Executive Director welcomed ideas for moving forward from the Committee and stated that the survey will remain open.

Program Updates

A representative from OTA announced that a new video giving an overview of OTA's Chemical Safety and Climate Change Resiliency work is now available. Members were also invited to a

presentation and discussion on October 10, 2018 where students from Worcester Polytechnic Institute would provide the results of an evaluation of the Chemical Safety and Climate Change Resiliency workshops and technical assistance including recommendations for work going forward. The OTA Director stated that OTA plans to continue this work by reaching out to Local and Regional Emergency Planning Committees.

A representative from TURI added that the Lawrence Fire Department was included as a Community Grantee for Fiscal Year 2019. The full list of Fiscal Year 2018-19 grants was provided to members and attendees. The TURI representative provided an update on the current Toxics Use Reduction Planner course, ongoing work at the new TURI lab, and a project on paint stripping replacements for methylene chloride.

A Committee member asked the MassDEP representative when the next TURA Information Release would be publicly available and also when the latest TURA data would be available on TURI's TURAData online tool. The MassDEP representative explained that the pace of development for TURA Information Releases had been affected by the need to expand the analysis and develop, test, and implement new data models. The representative went on to state that the work to develop these new models had largely concluded and that MassDEP would likely release all intervening years' reports simultaneously when they have been generated and approved. Regarding the data posted to TURI's TURAData platform, the representative stated that MassDEP must verify and clean the data prior to posting and that updated information on the TURAData platform is likely by Spring of 2019. TURI clarified that the 2014 data are currently available on the site.

The MassDEP representative added that, as of the September 27, 2018 meeting date, most invoices for facilities reporting on chemical use during calendar year 2017 had gone out. Any delays were related to MassDEP confirming with facilities that submitted information is correct.

Update: Regulation Package for C1-C4 (NOL) and TRI Chemicals

The Executive Director provided the update that the proposed changes to 301 CMR 41.00 Toxic or Hazardous Substance List will move forward for public comment starting October 5, 2018 with a public hearing on October 25, 2018. The changes are to add the following to the TURA list: the TRI nonylphenol category, the TRI hexabromocyclododecane (HBCD) category, and the TURA C1-C4 Halogenated Hydrocarbons/Halocarbons Not Otherwise Listed (C1-C4 NOL) category. The public hearing notice was provided as a handout to members and attendees.

Adjourn

Handouts

April 4, 2018 Draft Advisory Committee Meeting Minutes

Summary of Addition of Nonylphenol Ethoxylates (NPE) Category to TRI

ITRC Fact Sheet: History and Use of Per- and Polyfluoroalkyl Substance (PFAS)

September 2018 Draft Per- and Poly-fluorinated Alkyl Substances (PFAS): Summary and Introductory Information

TURA Program Update: September 2018

Public Hearing Notice for Changes to 301 CMR 41.00

Fiscal Year 2018-19 TURA Grants Overview

TURA Trainings Postcard