

## TURA Program Update – April 2022

### COVID-19 Pandemic

Where noted, upcoming events are planned as virtual due to the COVID-19 pandemic. Please check TURI's website for ongoing updates on events and resources, and feel free to contact TURI, OTA or MassDEP staff with any questions.

### For the Latest News

For the latest news, sign up for program newsletters from [TURI](#) ([see recent newsletter](#)) and [OTA](#) ([see recent newsletter](#)).

### Current and Upcoming Meetings and Events

- [Spring Continuing Education Conference](#), April 13, 2022, Marlborough, MA
  - Keynote: TURI Director Baskut Tuncak
  - Other sessions: Economics Evaluations 102: Building a Stronger Case for Implementation; Building the Business Case for a Real-World Scenario; Making Safer Choices in a Changing World; Using TUR Planning to Stay Ahead of Upcoming Chemical Restriction; Identifying PFAS Reporting and Planning Obligations
- (Virtual) [Resource Conservation Training: Energy](#) – April 20, 2022, 1:00pm–3:00pm
- (Virtual) [Resource Conservation Training: Solid Waste](#), April 27, 2022, 1:00pm–3:00pm
- (Virtual) Science Advisory Board Meeting – Single-Wall Carbon Nanotubes; April 28, 2022, 1:30pm - 4:30pm
- (Virtual) Advisory Committee to the TURA Administrative Council Meeting – May 4, 2022, 1:00pm–3:30pm

### Recent Events

- Recognition: on-site CD Aero award presentation that included Rep. Paul Schmid III. ([see the March newsletter](#))
- Trainings:
  - OTA and TURI sessions at the [NEWMOA Science of PFAS Conference](#) – April 5-6, 2022
  - [Resource Conservation Training: Water Conservation](#), March 31, 2022
  - OTA presentation at Licensed Site Professionals Meeting on PFAS: Toxics Use Reduction and Resources for LSPs, March 15, 2022.
  - [Resource Conservation Planning Basics](#), March 7, 2022. TUR Planners training workshop identifying the objectives, methods, and requirements of TURA Resource Conservation Planning options
  - [Environmental Health Impacts of Synthetic Turf and Safer Alternatives](#), Collaborative on Health and the Environment webinar, Jan 27, 2022.
  - OTA presentation at the 2021 Virtual Pacific Northwest Pretreatment Workshop, November 16, 2021
  - [Fall Continuing Education Conference](#) – Nov 4, 8, and 9; sessions: Lean manufacturing and TUR; Building a TUR team; Water conservation; PFAS; Metal finishing
  - [OTA/TURI/DEP presentation on PFAS regulatory updates and toxics use reduction](#) at the New England Regional Pretreatment Coordinators Association meeting, October 27, 2021
  - OTA presentation on [Partnerships for P2: Working With Companies and Utilities for PFAS Source Reduction](#) at the Pollution Prevention Resource Center Virtual P2 roundtable, October 21, 2021
  - OTA presentation on Managing PFAS at the Source to the American Groundwater Trust, October 20, 2021
  - OTA presentation on Massachusetts PFAS Policies, Regulations & Partnerships to the Central Mass. Business Environmental Network – October 12, 2021
  - Demonstration: [CD Aero Elimination of n-Propyl Bromide](#) . May 13, 2021
  - [NEWMOA PFAS Uses and Alternatives Webinar](#), April 20, 2021
  - OTA webinar co-hosted with Department of Labor Standards for Massachusetts manufacturers on what to expect during OTA and DLS remote technical assistance visits, Feb. 10, 2021
  - OTA webinar for technical assistance providers on best practices for remote technical assistance provision, Dec. 14, 2020



- TURA Administrative Council Meetings
  - [December 7, 2021](#)
  - [August 19, 2021](#)
  - [March 5, 2021](#)
- TURA Program Strengthening Ad Hoc Committee Meetings:
  - [Fees](#), Jul 22, 2021
  - [TURA List](#), Apr 29, 2021
  - [TUR Planning and Planners](#), Mar 30, 3031
  - [Alternative Planning - RC and EMS](#), Jan 13, 2021
  - [Compliance and Enforcement](#), Dec 14, 2020
  - [Orientation](#), Nov. 19, 2020
- TURA Science Advisory Board Meetings: For past meeting minutes and materials, see [https://www.turi.org/Our\\_Work/Policy/Toxics\\_Use\\_Reduction\\_Act/Councils\\_and\\_Committees/TURA\\_Science\\_Advisory\\_Board](https://www.turi.org/Our_Work/Policy/Toxics_Use_Reduction_Act/Councils_and_Committees/TURA_Science_Advisory_Board)
  - SAB Recommendation made to list 24 EPA Registered ADBAC and DDAC quaternary ammonium compounds (QAC's, or "quats")
  - Deliberations on carbon nanotubes and nanofibers in progress

### **TURA Program Shortlisted for International Award**

The Massachusetts Toxics Use Reduction Act (TURA) was among 12 policies from five continents shortlisted for the Future Policy Award 2021. [Read more here.](#)

### **TURI Update**

- [New TURI Director, Baskut Tuncak](#), joined the Institute in November 2021.

### **OTA Update**

- Tiffany Skogstrom was appointed Director of OTA in 2020 (previously Acting Director and Chemical Policy and Outreach Analyst) and Executive Director of the TURA Administrative Council.
- Hired Outreach and Policy Analyst, Kari Sasportas
- Hired temporary Environmental Justice Intern, Krishana Abraham-Petrie
- Two technical staff departures: Marina Gayl and Michelle Spitznagel
- Four WPI interns

### **Recent Publications**

- [Quaternary Ammonium Compounds \(QACs\) Fact Sheet](#)
- [Designing Safer Solvents to Replace Methylene Chloride for Liquid Chromatography Applications Using Thin-Layer Chromatography as a Screening Tool](#)
- [Cadmium and Cadmium Compounds Fact Sheet \(updated\)](#)
- [Guide to Finding Safer Alternatives to Halogenated Solvents](#)
- [Evaluation of Conversion Coatings Without Hexavalent Chromium for Aerospace and Defense Applications](#)
- [CD Aero Case study](#)
- [River Street Metal Finishing case study](#)
- [Riverdale Mills case study](#)
- [Workshop Auto case study](#)
- [Outstanding Bath case study](#)
- [Natural Grass Playing field case study – Martha's Vineyard](#)
- [Umicore case study](#) - Umicore Electrical Materials eliminates use of perchloroethylene in vacuum degreaser
- [Morgan Advanced Materials Triumphs over TCE](#) demo site, video and case study - Morgan eliminated TCE use for wax removal, substituting an aqueous process.

- [Fat Moon case study](#) - Fat Moon Mushrooms replaces bleach with safer sanitizer
- [Assessment of alternatives to cleaners and sanitizers for the brewing industry](#) - TURI publication providing technical, financial, environmental, health and safety, and basic regulatory information on alternatives to traditional cleaners and sanitizers
- [Artificial Turf Fact Sheet](#) Includes ways to prevent heat hazards
- [Martha's Vineyard Athletic Fields Case Study](#) – Innovative maintenance practices for organically managed grass athletic fields.

## **Video**

- [CD Aero eliminates use of nPB](#) – July 8, 2021 (and [full demonstration](#) – May 13, 2021)
- [Cleaning and Disinfecting Webinar for Vendors and Purchasers](#) – May 20, 2021
- [What are Engineered Nanomaterials? Uses and Hazards](#) – May 20, 2021
- [Finding Safer Solvents for Contact Adhesives](#) – May 4, 2021
- [Three Massachusetts Communities Maintain Athletic Fields Organically](#) – April 30, 2021
- [Course with Mark Rossi of Clean Production Action](#) – April 15, 2021
- [Legislator Briefing on TURA Data](#) – February 9, 2021
- [Warren Muir talk on lessons learned from climate change-related issues](#) – December 16, 2020
- More on [TURI's Youtube channel](#)

## **Administrative Council**

The Administrative Council adopted the TRI listing of 172 long chain PFAS chemicals, and those [regulations have been promulgated](#). As part of the federal FY20 National Defense Authorization Act (NDAA), [172 PFAS chemicals were added to the US Environmental Protection Agency \(EPA\) Toxics Release Inventory \(TRI\)](#). Under TURA, EPCRA chemicals are incorporated into the TURA chemical list; the regulations were finalized in Dec 2020. These PFAS chemicals were made reportable under federal TRI for 2020 reporting year and under TURA for 2021 reporting year.

The Administrative Council convened a [TURA Program Strengthening Ad Hoc Committee](#) to review experiences in the 10+ years since the 2006 TURA Amendments, and to look forward to the next decade and the critical priorities of Massachusetts with respect to toxic chemicals and safer materials. Background materials on the TURA Program Strengthening Ad Hoc Committee can be found [here](#). Meetings were held from November 2020 through July 2021, covering topics including compliance and enforcement, resource conservation and EMS planning, TUR planners and TUR planning, the list of TURA reportable substances, and fees. The TURA Program will report back on the activities of the Ad Hoc Committee to the TURA Advisory Committee and Administrative Council at the upcoming meetings of these bodies.

## **MassDEP Update: Flame Retardant Law**

An Act to Protect Children, Families, and Firefighters from Harmful Flame Retardants was passed by the legislature and signed into law by the Governor on January 1, 2021. MassDEP has a [New Flame Retardants Law webpage](#) that lists the chemicals being prohibited from sale in certain products; the regulations are in process. The law requires MassDEP to evaluate at least every 3 years, in consultation with TURI and the Science Advisory Board, whether other flame retardant chemicals should be added to the list. The TURA program will also assist MassDEP with outreach to impacted stakeholders to inform them about the law and TUR opportunities, including safer alternatives.

## **New PFAS Reportable Substances under TURA for 2022**

Certain PFAS NOL Certain Per- and Polyfluoroalkyl Substances Not Otherwise Listed (Certain PFAS NOL) [are now reportable](#) under the Toxics Use Reduction Act (TURA) (section 41.03(14)). Companies covered by TURA are required to track their use of these PFAS starting January 1, 2022 (Form S's due July 1, 2023). (See [Session D: PFAS: What You Need to Know and Do](#) from Fall 2021 virtual conference, and Session E: Identifying PFAS Use & Understanding Reporting Requirements from the spring 2022 Conference). TURI and OTA have also prepared [guidance on the Certain](#)

[PFAS NOL category](#).



### **New PFAS Reportable Substances under TRI for Reporting Year 2020, under TURA for 2021**

- **PFAS TRI listings as required by the National Defense Authorization Act (NDAA 2020):** EPA has identified [172 PFAS chemicals](#) that were added to TRI/federal reporting for 2020 reporting year, as required in the NDAA 2020 legislation. [See EPA's website](#) for more information. [EPA's regulations](#) have been published in the federal register ([85 FR 37354](#)).
- **Parallel listings under TURA:** The 172 PFAS reportable under TRI were added to the [TURA list of Toxic or Hazardous Substances](#) in December 2020, and are reportable for 2021 (Form S's due July 1, 2022). (See [Session B: PFAS chemicals, uses and compliance obligations presentation](#) from Spring 2020 virtual conference).
  - Seven additional PFAS have since been added to the TRI list, bringing the total number of TRI-reportable PFAS to 179, but these seven additional PFAS are not yet reportable under TURA.

### **PFAS Resources**

- TURI and OTA [Guidance for Reporting Per- and Poly-Fluoroalkyl Substances under TURA](#)
- OTA has created a [downloadable supplier notification template letter](#) to assist industries with identifying products that may contain the 172 PFAS chemicals recently added to the EPA Toxics Release Inventory, or PFAS covered under the Certain PFAS NOL listing.
- OTA has created [an infographic](#) with suggested steps for identifying PFAS in industrial facilities
- OTA has prepared [a fact sheet](#) on PFAS-related reporting and tracking obligations under TRI and TURA
- OTA is developing [PFAS identification surveys for manufacturers](#). So far, surveys for the metal finishing and paper industries have been developed; OTA plans to create additional surveys for the textile and coatings industries.
- OTA is working with MassDEP and EPA to provide free and confidential technical assistance to potential PFAS-using industries upstream from wastewater treatment plants.
- The [Science Advisory Board finalized their recommendation](#) on a category of PFAS substances in June; TURI [updated the policy analysis in Oct 2020](#). Additional information from the [SAB deliberations](#) is on TURI's website.
- AFFF Alternatives Assessment - The Lowell Center for Sustainable Production and TURI have received a DoD SERDP grant to help the DoD to make informed, efficient choices about alternatives to aqueous film-forming foams (AFFF), a fluorinated product used in firefighting.
- [PFAS in artificial turf](#)
- [TURI's PFAS information page](#)

### **TURA Data Dashboard**

TURI continues to provide user-friendly access to the TURA Data with a new [TURA Data online tool](#). Simply click on a chemical, company or town to view charts that make it easy to understand toxic chemical use in Massachusetts. The TURA Data is also available in downloadable spreadsheets on [MassDEP's website](#).

### **TURI FY21 Grants Awarded**

#### **Industry**

- **Central Metal Finishing Inc.** of North Andover, will purchase new cleaning equipment to eliminate the use of n-propyl bromide, a hazardous chemical that can affect the central nervous and reproductive systems. Working with the TURI Lab, Central Metal Finishing will find a safer alternative that works with the new equipment. The company's goals are to protect worker health and safety and increase production capacity for its aerospace and medical device customers.
- **S.E. Shires** of Holliston, a maker of custom brass musical instruments, will purchase an aqueous ultrasonic cleaning machine for a new line of larger instruments. In 2018, the Massachusetts Office of Technical Assistance helped S.E. Shires eliminate the use of trichloroethylene (TCE), a toxic solvent that was used to clean the instruments. To continue using a water-based cleaning solution and not revert back to using TCE, S.E. Shires is working with the TURI Lab to identify aqueous products that effectively remove debris and oils from brass surfaces.

## Small Businesses

- **Rindge School of Technical Arts**, of Cambridge, will create a safer environment for students who learn and work in the automotive technology program by replacing solvents with bio-based parts washing systems. These safer products will replace aerosol brake and parts cleaners that contain solvents such as toluene, methanol, acetone and perchloroethylene (perc). The automotive technology program staff will also replace lead wheel weights, which are physically handled by students on a daily basis, with non-lead weights.
- **North Randolph Cleaners** will convert its dry cleaning shop from using perc, a likely human carcinogen, to Professional Wet Cleaning. This safer alternative allows the small businesses to clean “dry-clean-only” clothes with water and detergents in computer-controlled machines. Workers then use special tensioning and pressing equipment to achieve high-quality results. North Randolph Cleaners expects to eliminate the use of 200 gallons of perc annually.

## Academic Researchers

- **Associate Professor Hsi-Wu Wong**, Department of Chemical Engineering at UMass Lowell aims to identify safer, effective solvents in collaboration with **Johnson Matthey**, a manufacturer of active pharmaceutical ingredients and intermediates at its facilities in North Andover and Devens. The safer alternatives could replace methylene chloride, a toxic chemical used in the company’s manufacturing processes. This project is a continuation of last year’s research conducted by Assistant Professor Grace Chen of Plastics Engineering. The goal of this year’s research is to further evaluate the effectiveness of the identified safer alternative solvent blends.
- **Professor Ramaswamy Nagarajan**, Department of Plastics Engineering at UMass Lowell will work with **Transene Company** of Danvers to research safer chemicals, to replace per- and poly-fluoroalkyl substances (PFAS) surfactants used in electronic processing chemicals. The research team will study the compatibility and stability of pectin-based bio-surfactants in etching solutions. This work is expected to help Transene phase out the use of PFAS by the end of 2022 and provide useful results for other industries that use PFAS surfactants in manufacturing.

## Community Groups

- **Community Action Works** and **Clean Water Fund** of Boston will provide workshops and resources to community members about PFAS contamination in drinking water and other sources. These chemicals have been linked to health effects such as cancer, liver damage, decreased fertility, asthma and thyroid disease. The project team will provide community members with information about health and environmental concerns, safer alternatives and practical steps to reduce the use of, and exposure to, PFAS.
- **Nantucket PFAS Action Group** will work with firefighters to replace firefighter gear containing PFAS, study the impacts of this replacement and educate firefighters about PFAS and safer alternatives. PFAS, which is used in firefighting protective gear to repel oil and water, can shed from the gear, leading to human and environmental exposures. Working with the **Nantucket** and **Fall River Fire Departments**, the project team will share information with firefighters, fire marshals, unions and cancer prevention groups in Massachusetts. The team will create fact sheets, host a webinar and use social media to share information on PFAS and safer alternatives.
- **Silent Spring Institute** of Newton and **Resilient Sisterhood Project** of Boston will use social media to share information about toxic chemicals in personal care products marketed to Black women. These chemicals – including phthalates, parabens, phenols and antimicrobials – are associated with a broad range of health effects, including endocrine disruption, asthma and cancer. Based on in-depth research about how women seek information on personal care products, the team will work with influencers to share information about safer alternatives on social media.

## Resources and Media Related to COVID-19 Safer Cleaning and Disinfecting

- See TURI’s website: [https://www.turi.org/Our\\_Work/Cleaning\\_Laboratory/COVID-19\\_Safely\\_Clean\\_Disinfect](https://www.turi.org/Our_Work/Cleaning_Laboratory/COVID-19_Safely_Clean_Disinfect) with updated list of safer disinfectant products
- [Guidance for Businesses](#): Find information about safer cleaning and disinfecting, and tools such as log and checklist templates and a [fact sheet](#).

**For more information, contact the TURA program.** E-mail addresses are available on our websites and are the preferred method of communication while we are all working remotely:

- OTA: <https://www.mass.gov/service-details/otas-team>
- MassDEP: Lynn Cain, [lynn.cain@mass.gov](mailto:lynn.cain@mass.gov) or Walter Hope, [walter.hope@mass.gov](mailto:walter.hope@mass.gov)
- TURI: [https://www.turi.org/About/Staff\\_List](https://www.turi.org/About/Staff_List)