

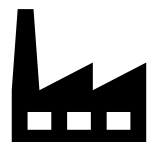


Toxics Use Reduction Resources for Pretreatment – The TURA Program

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Heather Tenney, Director of Science and Policy, Toxics Use Reduction Institute

Toxics Use Reduction Act (TURA) of 1989



Who reports?

- Massachusetts manufacturers who:
 - Operate under certain Standard Industrial Classification (SIC) codes
 - Have >10 employees
 - Manufacture or process $\geq 25,000$ lbs (or otherwise use $\geq 10,000$ lbs) of listed substances
- This covers a little over 400 Massachusetts facilities



What TURA requires

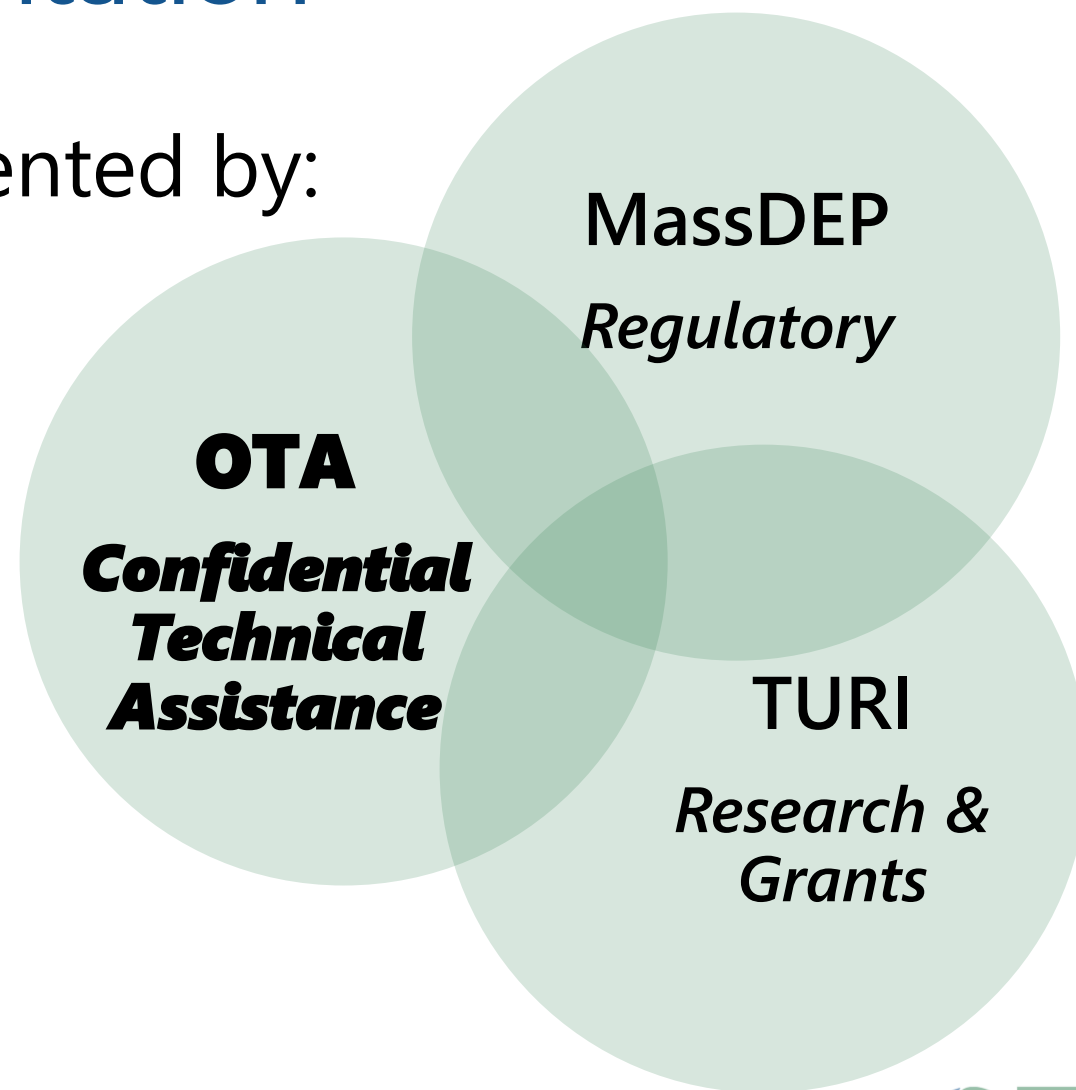
- Report to the state
- Pay a fee
- Create a Toxics Use Reduction Plan every two years

TURA does not prohibit companies from using listed chemicals.

TURA Program Implementation

The TURA Program is co-implemented by:

- The Massachusetts Department of Environmental Protection
- The Massachusetts Office of Technical Assistance
- The Toxics Use Reduction Institute at UMass Lowell



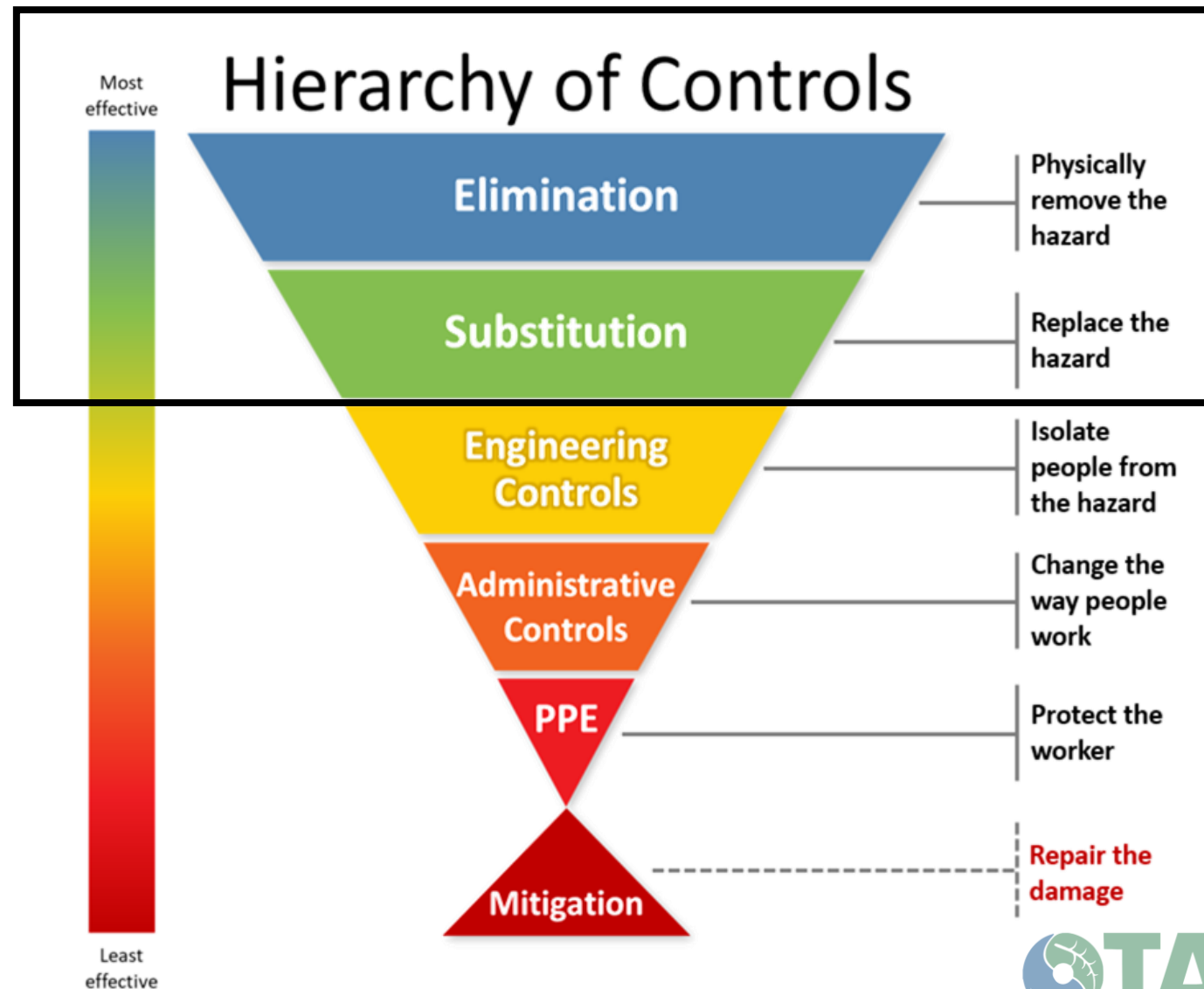
Source Reduction and Pollution Prevention

Source reduction, or pollution prevention:

The reduction, elimination, or prevention of pollution at its source.

Results in less waste to control, treat, or dispose of

Reduces hazard posed to public health and the environment



Office of Technical Assistance (OTA)

- **Non-regulatory** agency
- Provides **free, confidential** technical and compliance assistance to MA businesses that use toxic substances
- Gives **concrete recommendations** for toxics reduction and resource conservation

OTA has conducted over 4,300 site visits at over 1,500 facilities, reducing millions of pounds of toxic chemicals and millions of dollars in operating costs.

OTA Technical Assistance

- OTA can assist facilities with:
 - Toxics use reduction
 - Environmental compliance
 - Energy efficiency
 - Resource conservation
- Both onsite and remote assistance are available
- After a site visit, OTA delivers tailored recommendations

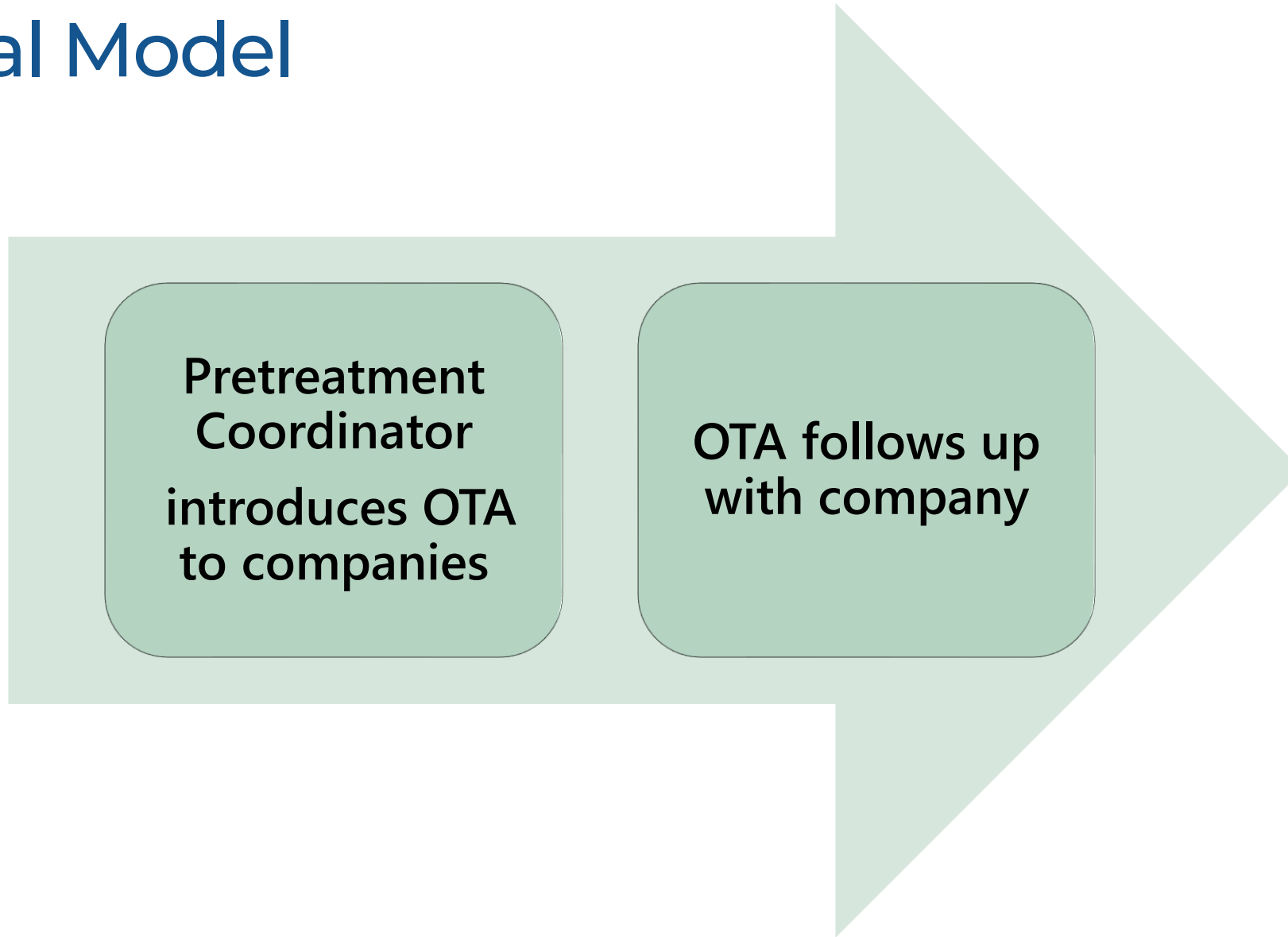


OTA Chemical Safety and Climate Change Table-top Exercises

- Emergency planning tools for businesses
- [Tabletop exercise materials](#)
- [Facility emergency plan summary template](#)
- [Mapping tool](#) to assess toxics use and climate vulnerability, including at-risk and environmental justice populations
- [Videos for businesses and communities](#)
- Materials available in multiple languages



Referral Model



Why Referrals?

Mistrust in government

Companies don't always believe "we're from the government and we're here to help"

Context of interactions

OTA often offers help when there is a compliance issue

Shifting regulatory landscape

Challenges in adapting to change

Fear of liability

The Process of OTA Site Visits

**Pre-Visit
Questionnaire**



**Schedule Site
Visit**



**Initial Meeting
and
Walkthrough**



**Identify Facility
Priorities**



**After Visit
Report**

PFAS in Industry

Semiconductor Manufacturing

Aerospace Industry

Biomedical Industry

Food Packaging

Textiles Manufacturing

Electronics Manufacturing

 MINNESOTA POLLUTION
CONTROL AGENCY

PFAS desktop screening tool

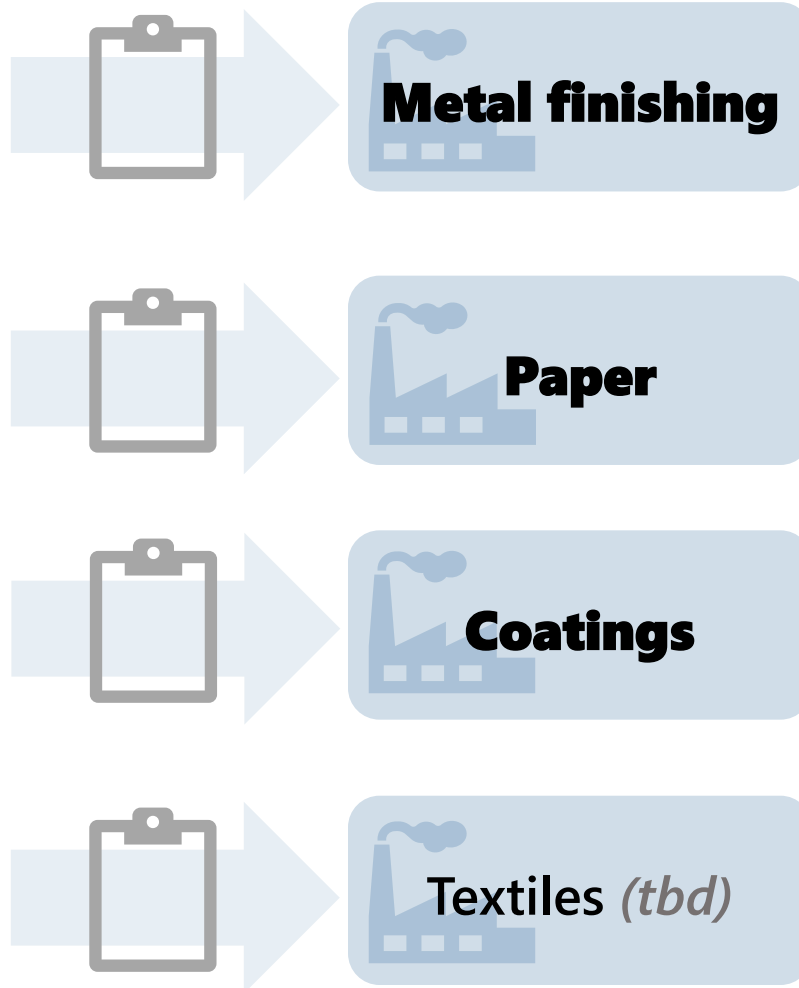
 chemsec
PFASGUIDE



**Customized
ChemSec
list tool**

PFAS Identification Questionnaires

Assessments
to identify
PFAS sources



- OTA technical staff flag likely sources of PFAS
 - Companies may share list of CAS numbers with OTA
- OTA pursues research on products of concern
- Companies may opt to share product information with OTA to populate a list of PFAS-containing products

Product Information and Supplier Notification

Use SDS information to compare against list of regulated PFAS and common use applications

TURA and TRI PFAS Identification Letter

Recipient Name

Supplier Business Name

Address Line 1

Address Line 2

City, State ZIP

Account #: 00000000

RE: PFAS Supplier Notification Requirements under the Massachusetts Toxics Use Reduction Act (TURA) and the Toxics Release Inventory (TRI)

Dear Name,

Company Name (account #: 00000000) requests your cooperation and assistance to comply with new chemical listings under the Massachusetts Toxics Use Reduction Act (TURA) and the federal Emergency Planning and Community Right-to-Know Act (EPCRA).

In Summary

OTA's **free, confidential** services can assist and encourage manufacturers with toxics use reduction, decreasing chemical releases, by:

Accepting referrals to
toxics users

Identifying users of PFAS,
or other chemicals,
within your community

Engaging with
manufacturers within
your community

An upstream effort between the TURA Program
and facilities like yours can help reduce toxic chemicals
in workplaces—and in the water supply.

Toxics Use Reduction Institute (TURI)

- Education and Training for TUR Planners
- Science and Policy
 - Science Advisory Board
 - Policy analysis, data analysis
- Research, development and assessment of safer alternatives
 - Academic research grants, collaborative business-researcher grants
 - Laboratory services for industrial and janitorial cleaning
 - Alternatives assessment
- Technical and financial support to businesses and communities
 - Grants and information resources
 - Business supply chain workgroups and research



How TURI Supports Development of Safer Alternatives



Academic research leads to new solutions



Industry research develops reliable options



Grants support implementation that demonstrates viability



Training professionals ("Planners") builds capacity for change



Alternatives assessment reports spread knowledge



Tools facilitate discovery and evaluation of options

Case Study: Phasing out TCE

New Method Plating worked with the Toxics Use Reduction Institute (TURI), the Massachusetts Office of Technical Assistance (OTA), and the University of Massachusetts Lowell (UMass Lowell) to find safer alternatives to TCE in their vapor degreasing operations. The research, evaluation, and implementation of the safer alternatives took place over a 6-month period and resulted in cost savings, in addition to a healthier environment for employees and customers.

Safer Alternative Benefits:

- Reduced energy costs
- Reduced labor costs
- Increased throughput
- Reduced maintenance costs
- Reduced defects

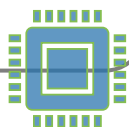


P2OASYS.TURI.ORG

PFAS and Academic Research: Transene

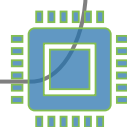
TRANSENE
COMPANY, INC.

Due to customer demands, wanted to eliminate PFAS ingredient from microelectronics etching products.



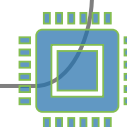
TURI
TOXICS USE REDUCTION INSTITUTE
UMASS LOWELL

Transene approached TURI for assistance in developing viable and safer alternatives to PFAS



UMASS
LOWELL

Research grant awarded to facilitate collaboration between UML researchers, Transene and TURI staff



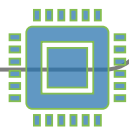
- PFAS-free solution developed with comparable performance
- Adopted by ~ 90% of Transene's customers
- PFAS alternative cost 1/10th the price

PFAS and Academic Research: Haartz

HAARTZ

(Acton, MA)

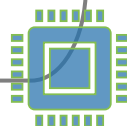
Due to customer demands, wanted to eliminate PFAS ingredient from automotive components.

**TURI**

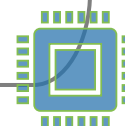
TOXICS USE REDUCTION INSTITUTE

UMASS LOWELL

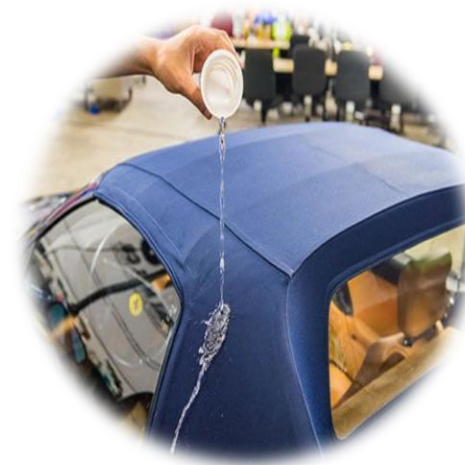
Haartz approached TURI for assistance in developing viable and safer alternatives to PFAS



Research grant awarded to facilitate collaboration between UML researchers, Haartz and TURI staff

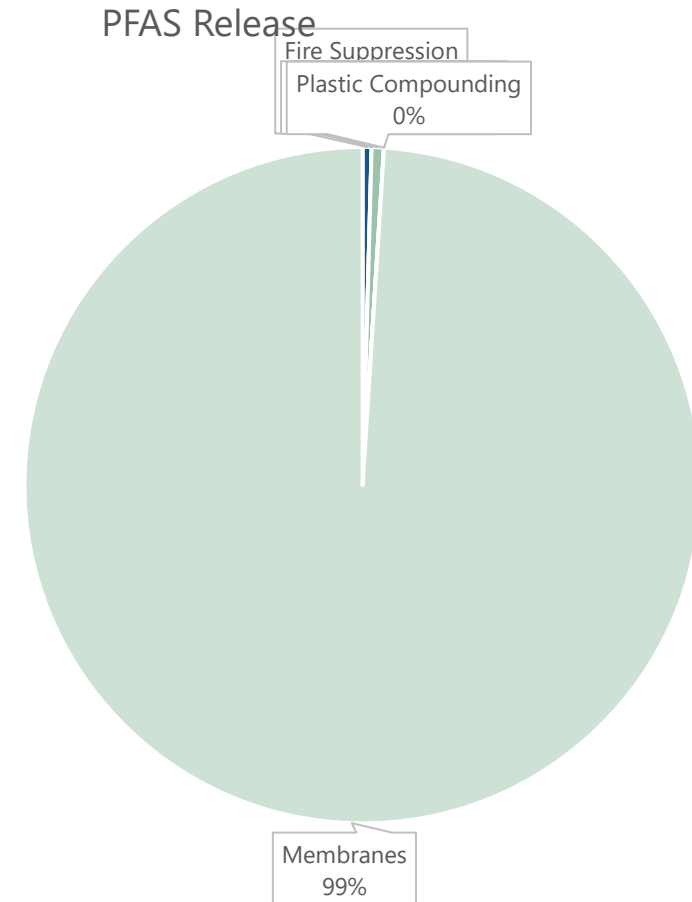
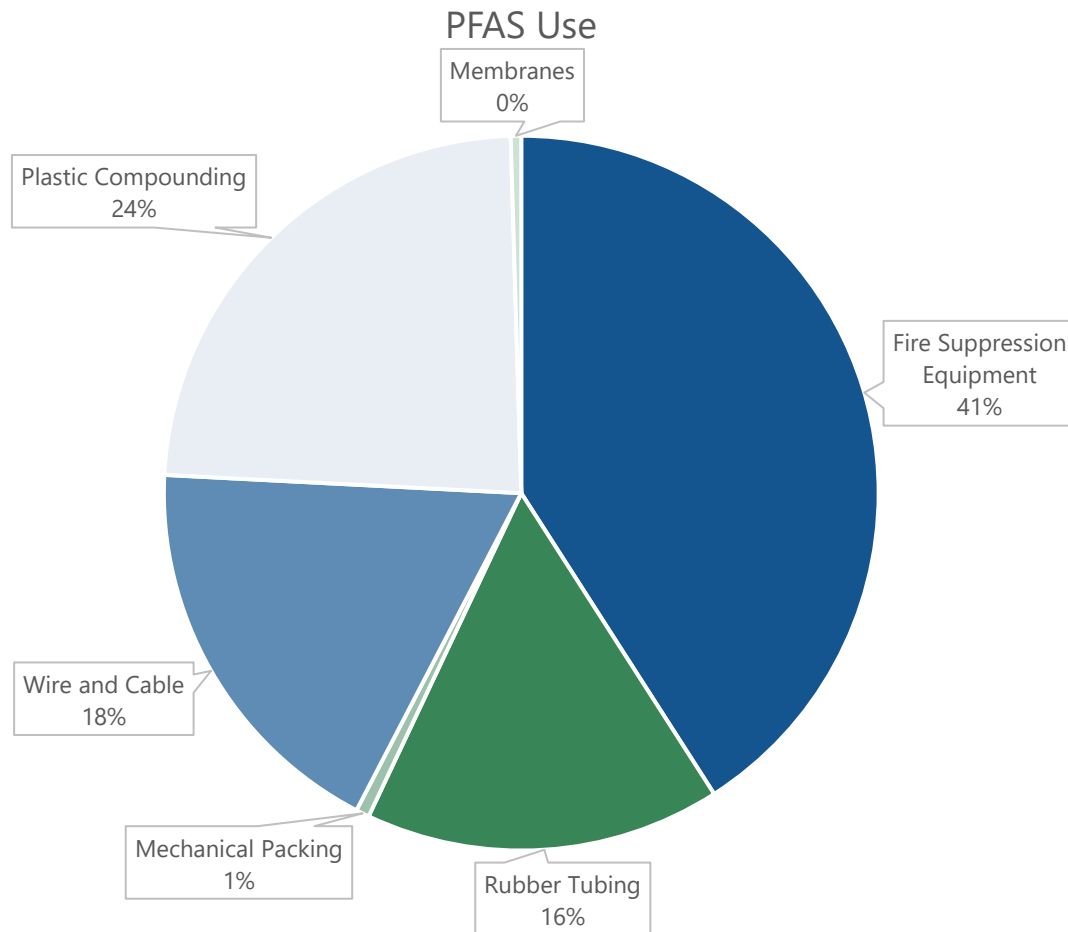


PFAS-free solution developed with comparable performance



PFAS-free stain resistant textiles

2024 PFAS Use and Release under TURA



Where are you seeing PFAS in manufacturing?

Resources for Pretreatment

- Free to Massachusetts
- Include OTA and TURI information in any general communications / newsletters with your SIUs
- Use NPDES permit renewal notification / PFAS regulatory updates as an opportunity to encourage manufacturers to utilize OTA as a free resource
- Invite OTA to present to your SIUs at an event and meet & greet
- Co-host a webinar with OTA for your SIUs, keeping them informed of everything that they need to know about PFAS
- **Remember that companies are interested in PFAS source reduction, too. Keep talking with them.**
- **Replicate our survey (other states)**
- Your ideas?

Contact Us

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