

# Massachusetts Toxics Use Reduction



## TURA Program Update

Fall 2020 TUR Planner Continuing Education  
Virtual Conference  
Oct 27, 2020



# MassDEP COVID-19 filing deadline extension

- Due to the COVID-19 pandemic, MassDEP will treat as timely any **TUR Report and Plan Summary** filed up to 120 days after the original July 1, 2020, deadline (or by **November 1, 2020**)
- Planner Certification: All re-certifications that expired prior to July 10, 2020 were due by October 1, 2020

# TURA Chemical List

- **C1-C4 Halogenated Hydrocarbons/ Halocarbons Not Otherwise Listed**
  - State only chemical
  - **First reports due Nov. 1, 2020 (for RY2019)**
  - Resources: see handout
- **Nonylphenol ethoxylates (NPEs) TRI/EPCRA category**
  - Category of 13 specific NPEs
  - TRI/Federal: First reports due July 1, 2020 (for RY2019)
  - **TURA/State: First reports due July 1, 2021 (for RY 2020)**

# TURA Administrative Council

- Addition of TRI NDAA PFAS chemicals
  - 172 PFAS chemicals added to TRI for 2020 reporting year, as required in the NDAA 2020 legislation
    - 14 specific long-chain and GenX PFAS, plus 158 precursor PFAS
    - Individually listed with 100 lb reporting threshold
  - Nov 20, 2020 Public Hearing on draft regulations, 1-3PM
- Not reportable under TURA for 2020 reporting year

# TURA Advisory Committee

- Upcoming Virtual Meeting:

October 30, 2020

12:30PM-2:30PM

## Agenda

- TRI NDAA PFAS regulations
- Revised Draft PFAS policy analysis
- Ad Hoc committee on TURA Improvement
- Program update

# TURA Ad-Hoc Committee on TURA Improvement



*The Administrative Council has designated an ad hoc committee to review experiences since the 2006 TURA Amendments*



*Looking forward to the next decade and the critical priorities of Massachusetts with respect to toxic chemicals and safer materials.*

# TURA Ad-Hoc Subcommittee on TURA Improvement

- Upcoming Virtual Meeting - Orientation
  - Nov 19, 2020      3-5PM
- Subsequent meeting topics
  - Compliance and Enforcement
  - Resource Conservation Planning
  - TUR Planners
  - Toxic or Hazardous Substance List
  - Fees

# PFAS Policy Analysis

Proposed PFAS category recommended by SAB:

- Those PFAS that contain:
  - A perfluoroalkyl moiety with three or more carbons (e.g.,  $-C_nF_{2n}-$ ,  $n \geq 3$ ; or  $CF_3-C_nF_{2n}-$ ,  $n \geq 2$ ) or
  - A perfluoroalkylether moiety with two or more carbons (e.g.,  $-C_nF_{2n}OC_mF_{2m}-$  or  $-C_nF_{2n}OC_mF_m-$ ,  $n$  and  $m \geq 1$ ), and
  - That are not otherwise listed



# Science Advisory Board

- Quaternary ammonium compounds
- Nanomaterials – petition to list carbon nanotubes and carbon nanofibers

# TURA Staff Changes



- **Tiffany Skogstrom** – Acting OTA Director and Executive Director of TURA Administrative Council

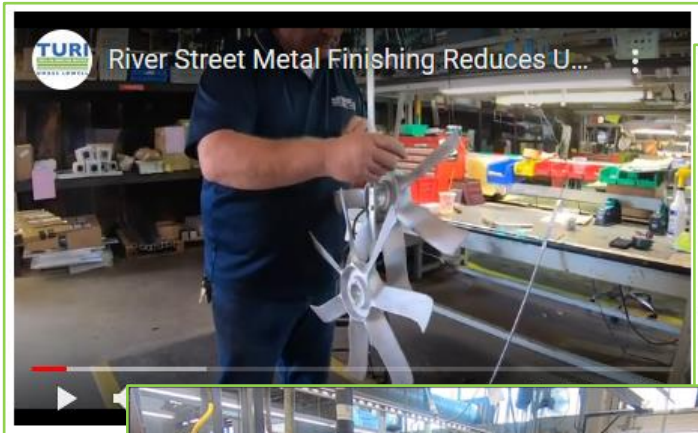


- **Caredwen Foley** – OTA Communications and Outreach

## Retirements

- **Rich Bizzozero and Felice Kincannon** have retired – we wish them well!

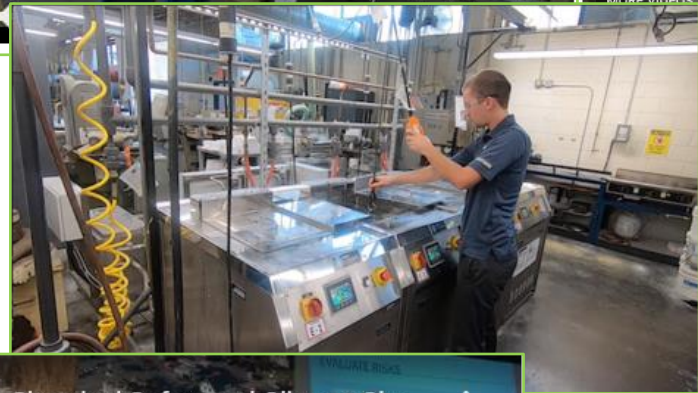
# TURA Program Resources



Videos,  
demo sites,  
case studies

Environmental Assistance  
Services for Businesses

Get free, confidential environmental assistance for your business or facility.



**TURI**  
UMASS LOWELL  
Making Massachusetts a safer place to live and work

**Fat Moon Shines with Safer Alternatives**

Overview

Fat Moon Mushrooms grows mushrooms in a renovated mill building in Chelmsford, Massachusetts, for distribution to restaurants, farm stands, and small grocery stores in the Northeast region of the state. Fat Moon produces 200 to 500 pounds of mushrooms weekly, including shiitake, oyster, lion's mane, and chestnut.

Growing mushrooms indoors requires a moist environment and an acceptable growth medium, such as straw, sawdust, or coffee grounds. Fat Moon currently purchases pre-inoculated growing blocks from a vendor and then cultivates them in one of their two grow rooms.

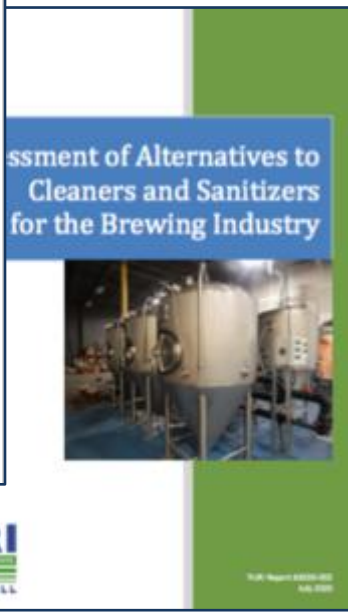
Due to the nature of the product and the growing process, unwanted mold and bacteria contaminate the plastic sheeting hanging on the walls of the grow room. The plastic sheeting is hung to keep the wallboard underneath from getting contaminated and moist; the plastic sheeting is easier to clean and sanitize than the porous wallboard. Because the mold and bacteria on the walls was potentially becoming airborne and migrating to the grow blocks, Fat Moon was sanitizing the plastic sheeting with a diluted bleach mixture. However, bleach is an eye, mouth, lung and skin irritant and can also cause and/or trigger asthma.

Concerned about the potential negative health impacts of bleach, Fat Moon discussed finding a safer alternative with the Toxics Use Reduction Institute (TURI) at Umass Lowell. The TURI cleaning lab tested the performance of safer methods to potentially replace bleach at Fat Moon. Ultimately, the owner of Fat Moon chose to switch to a product generated from a salt mixture dissolved in water and electrochemically activated to create a hypochlorous acid solution. The solution worked for the business's needs, is considered safer than bleach, and is a cost-effective alternative.

Alternative Sanitizers

To determine what safer alternative could be effective, the TURI lab tested two off-the-shelf sanitizers and two appliances that generate sanitizers. The lab then assessed the performance of each of the four sanitizers in comparison to bleach.

The two appliances tested were a Mondovap® steam cleaner and a Force of Nature™ electrochemical activation (ECA) system. Each appliance generates a sanitizer which is then applied to the surface.



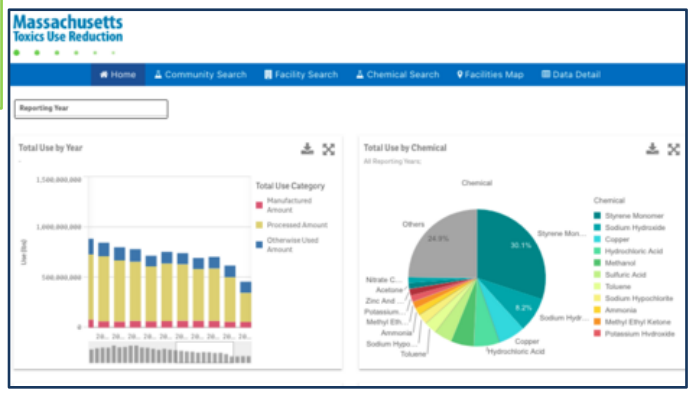
See written program update posted with conference materials

**OTA Chemical Safety and Climate Cha...**

**BUILDING CHEMICAL SAFETY INTO CLIMATE CHANGE RESILIENCY PLANNING**

PRESENTED BY THE MASSACHUSETTS OFFICE OF TECHNICAL ASSISTANCE

Play (k) 0:03 / 3:59



**TURI**  
UMASS LOWELL  
TOXICS USE REDUCTION INSTITUTE

**Greenlist Bulletin**

Toxics Use Reduction Institute Newsletter

October 2019

**Safer Cleaning and Disinfecting: Information for Manufacturers and Other Businesses**

As Massachusetts businesses reopen, they face the need to clean and disinfect to prevent COVID-19 transmission. Certain cleaning and disinfecting chemicals have been linked to acute and chronic illnesses, including asthma. However, safer alternatives are available. This fact sheet provides some key guidelines for safer cleaning and disinfecting, as well as information on how to use disinfectants effectively in manufacturing and other business facilities.

**NEVER MIX CLEANING CHEMICALS**

NEVER mix chemicals together when cleaning and disinfecting. Mixing chemicals together can cause very dangerous reactions. For example, bleach is a highly reactive and can cause dangerous byproducts when combined with other chemicals. If bleach and ammonia are mixed together, they produce toxic gases that can be lethal. Mixing bleach with hydrogen peroxide or vinegar is also dangerous. For more information, see TURI's web page on the [Dangers of Mixing Cleaning Chemicals](#).

**CLEAN AND DISINFECT EFFECTIVELY**

Disinfectants are effective only when used as directed and after cleaning. It is important to review the manufacturer's labels and technical data sheets (TDS) before use. Use the EPA Pesticide Product and Label System to find labels for any disinfectant product registered by EPA, using the EPA registration number or product name. This resource provides hazard information, directions for use, storage, and other information. Contact the vendor for any further questions on use.

Clean before disinfecting. Disinfectants are not cleaners. Surfaces must be cleaned before disinfecting. Otherwise, the disinfectant may not come into direct contact with viruses and bacteria. Clean the surface with soap and water or another appropriate cleaner before applying any disinfectant.

Use cleaning cloths correctly. Use separate cloths for the cleaning step and the disinfecting step. Place the cloth immediately in a laundry receptacle after cleaning and disinfecting to avoid potential cross-contamination.

**DEFINITIONS**

**Cleaning:** the removal of foreign material (e.g., soil and organic material) from surfaces and objects, normally accomplished with detergents or soaps. Cleaning is required prior to disinfection.

**Disinfection:** a process that is used to reduce the number of viable microorganisms on a surface but that may not necessarily inactivate all microbial agents.

**Sanitizing:** a process that reduces (but does not necessarily eliminate) microorganisms to levels considered safe, as determined by public health codes or regulations. Sanitizers include food-contact and non-food-contact products.

**Sterilization:** a validated process used to render a surface or instrument free from all viable microorganisms.

Source: [Cleaning for Safer Air](#); [Ammonia](#); [Zinc Oxide](#); [OTA](#); [MassDOT](#); [OSHA](#); [EPA](#); [NIH](#)

**TURI**  
UMASS LOWELL

Cleaning and Disinfecting information

About the Toxics Use Reduction Act (TURA) Program →



# TURI Grant Projects – FY 2021

## Safer Solvents

### Steel Art Company, Norwood

- Safer substitute for n propyl bromide

### Grove Hall Cleaners, Dorchester

- Professional wet cleaning

### Asst. Prof. Chen, UMass Lowell Plastics Engineering, partnering with Johnson Matthey

- Safer substitute for methylene chlorine in pharmaceuticals



# TURI Grant Projects – FY 2021

## Safer cleaning and disinfection

- Family Martial Arts Center, Leominster, Fitchburg
- Clean Water Fund, with MassCOSH, Resilient Sisterhood Project, Vida Verde Women's Co-op, and AFT-Massachusetts
- Brazilian Women's Group
- Informed Green Solutions
- Silent Spring Institute, with Resilient Sisterhood Project  
*+ product choices for women of color*

## **TURI Grant Projects – FY 2021 Food Systems and Processing**

- Wellspring Harvest Corporation, Springfield
  - Eliminating pesticides with tighter process and humidity control

## **EPA Healthy Communities grant**

- TURI obtained an EPA grant for Lean manufacturing for food processors in the Merrimack Valley

# OTA Virtual Site Visits



Chemists and Engineers available by:

- Virtual Zoom site visits
- Phone
- Email

Forms of Assistance:

- Toxics Use Reduction
- Regulatory and Compliance
- Resource conservation
- Pollution prevention
- Identifying PFAS products



# Contact us any time!



TURI  
questions:

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TURI Staff: [https://www.turi.org/About/Staff\\_List](https://www.turi.org/About/Staff_List)



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