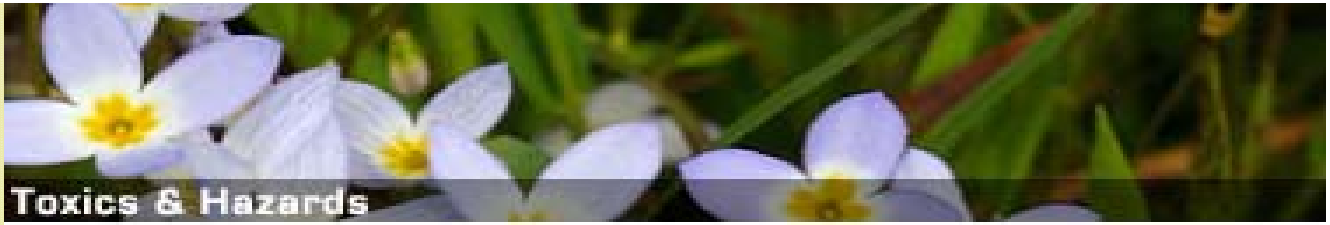


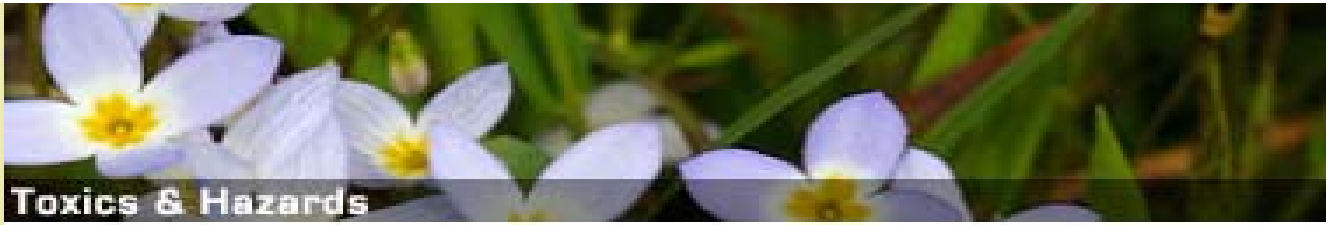
Toxics Use Reduction Act (TURA)

Welcome to Training on Reporting and Planning Under the Toxics Use Reduction Act

Massachusetts Department of Environmental Protection

OTA Office of Technical Assistance & Technology

TURI Toxics Use Reduction Institute



Toxics Use Reduction Act (TURA)

TURA requires Massachusetts companies that use certain quantities of specific chemicals to evaluate and plan for pollution prevention opportunities, implement them if practical, and annually measure and report the results.

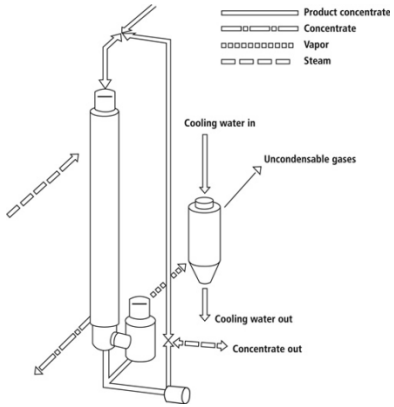
Massachusetts Toxics Use Reduction Act

- 1989—Massachusetts was the first state to enact a Toxics Use Reduction Law
- Goals of the Massachusetts Law
  - Achieve 50% reduction in byproduct (waste) by 1998
  - Establish toxics use reduction as the preferred means of compliance
  - Promote the competitive advantage of Massachusetts Industry
  - Reduce the production and use of toxic chemicals

How is Toxics Use Reduction (TUR) Defined

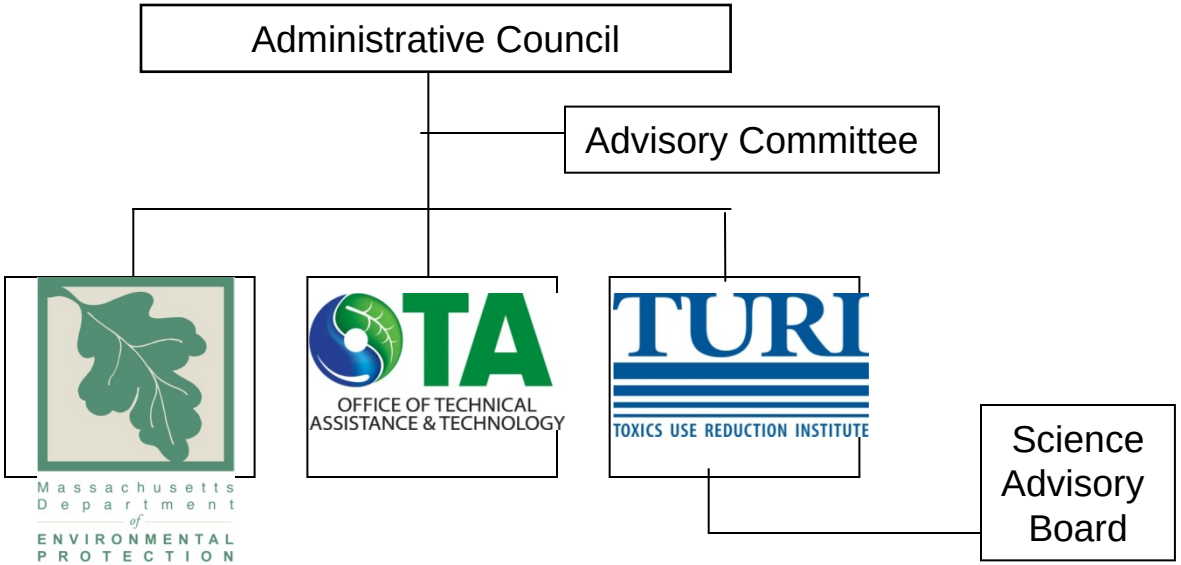
- *Direct*
  - Chemical Input Substitution
  - Product Redesign

- *Indirect*
  - Process Modification
  - Operations and Maintenance Improvements
  - In-Process Recycling



TURA Program Agencies

- MassDEP, Bureau of Waste Prevention
- Office of Technical Assistance
- Toxics Use Reduction Institute



Industry Resource – The North East Fabricare Association (NEFA)

NEFA will work with TURI, OTA and the regulated community to:

- Help streamline the process
- Develop compliance tools
- Help set industry standards for reporting purposes
- Establish Basic Planning Tools for use by Certified Planners.

Designation of Higher and Lower Hazard Substances

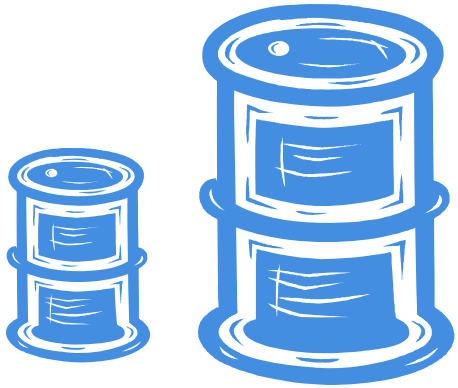
- Chemicals currently designated in higher hazard status:
  - PBTs (Persistent Bioaccumulative and Toxic Chemicals)
  - Trichloroethylene
  - Cadmium and cadmium compounds
  - Perchloroethylene (perc)
- Other chemicals will be considered soon for higher hazard status

Perc Designation

- Perc was designated a Higher Hazard Substance (HHS) in 2008
- 1,000 pounds – reporting threshold

Perc Reporting

- One gallon of perc = 13.5 pounds, 1000 pounds is about equal to 75 gallons.



- Perc is OTHERWISE USED in Dry Cleaning.

Which Companies Have to Comply?

1. Employs the equivalent of at least 10 full-time employees (FTEs) (in 2009);
2. Manufactures, processes or otherwise uses a TURA-regulated chemical in excess of a reporting threshold (in 2009);

AND

3. Conducts business activities in a listed SIC or NAICs code – dry cleaning is listed.

Counting Employees

An FTE is defined as: 2,000 work hours per year.

The 10 FTE criteria is met if a total of 20,000 hours are worked by all employees (including sub-contracted workers) whether they worked full or part-time. Don't have punch-clock? Use best estimate.

If an individual is employed by the facility or by the facility's parent company to work for the facility, then all of the hours worked by the individual for the facility should be counted toward the 20,000-hour employee threshold.

Employee Examples

- Employees (including perc-machine operators, drivers, bookkeepers, sales staff) serving the facility that uses perc in quantities above threshold.
- If they serve two facilities, count the time they spend serving the facility that must report under TURA.
- Don’t count time spent serving the drop-off facility.

What the Toxics Use Reduction Act Requires

1. Annual toxics use reports on the use of toxic materials

2. Payment of a toxics use fee
3. Every other year, a process of planning that examines opportunities to reduce the use of toxic chemicals and their wastes.

Your first reports due: ***July 1, 2010***

A summary of your planning efforts due: ***July 1, 2012***

What is in a Toxics Use Report?

- Form S Cover Sheet
- Form S (for each chemical)
- State-only Form R/A (for each chemical)
- Fee Worksheet

Differences Between TURA and ERP Reporting

Element	TURA	ERP
Thresholds	10 FTEs, 1,000 pounds of perc use	None; all perc users covered
Reporting Period	Calendar year	Last 12 months from date of compliance certification (due each September)
Quantities Reported	Mass Balance - pounds of perc used, byproduct, shipped in product, released, transferred off-site as waste (count perc portion of waste only)	Gallons of perc purchased and pounds of hazardous waste (includes more than just perc portion of waste)
What do you Look at to Determine Quantity?	Production unit(s), including perc used outside machines (e.g., spotting)	Perc machine(s)
Other Information	Description of why perc used, unit of product, process code, etc.	Compliance Information

What do You Have to do for TURA Reporting?

- Count up what you *use* in 2009, in pounds
- Count Byproduct from that use – total waste, air emissions, and water discharges in pounds (or make best estimate possible)
- Describe a Production Unit and Unit of Product
- Measure your production – in future years you will report a production ratio, comparing year-to-year changes in production
- Submit Toxics Use Report to MassDEP for July 1, 2010

Counting up Usage

- Count perc each time it goes into the Production Unit
- Jan. 1 inventory plus amounts purchased during the year minus Dec. 31 inventory
- Use best engineering estimate
- If purchases are loaded directly into the machine at time of delivery, this is essentially the same as tracking purchases

The Production Unit

You describe a *combination of the processes (or activities) used to produce a product or service.* You count chemical use in the whole facility by counting it in production units first.

If the perc is only used completely within one machine, that machine (or your entire facility) is your production unit.

If the perc is used within two machines, you have a choice: call them one production unit, or identify two production units.

If perc is used for spotting outside of the machine, you can: designate it as a third production unit, or incorporate within another production unit. *All places where the chemical is used must be within a production unit.*

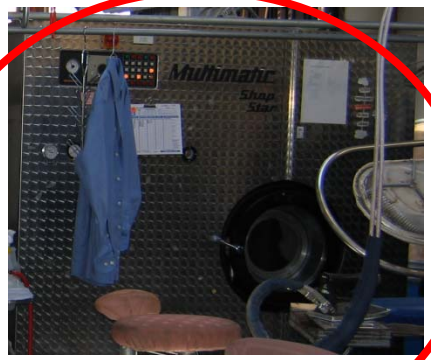
Production Unit Examples

Example #1:

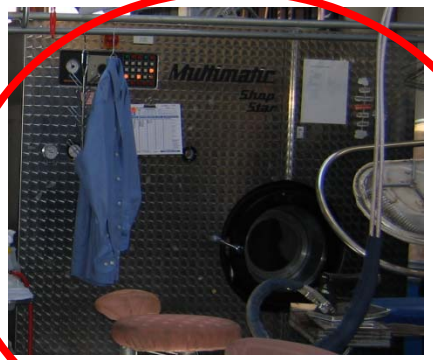
Entire Facility

= Production Unit 1

Example #2:



Perc Machine #1
= Production Unit 1



Perc Machine #2
= Production Unit 2

Spotting Board using perc
= Production Unit 3

Unit of Product

You pick a unit of product that enables measurement of work performed. It should be a reliable indicator of changes in production levels - increase or decrease as production goes up or down.

Such as: pounds of clothing washed, batch cleaning cycles performed, number of pieces by type (shirts, pants, sweaters, etc.). Gallons of perc can not be used as a Unit of Product.

Nonphysical measures may be used, such as hours of operation, labor hours, and dollar sales. But these can vary for reasons unrelated to production. If non-physical Unit of Product is chosen, a written explanation as to why a physical measure cannot be used must be provided.

Byproduct

Byproduct is all the perc that leaves a production unit

These are **not** byproduct:

- Substances that are recycled through a process that is "integral" to the production unit are not byproducts . They never leave the production process.

Mass Balance

- The Form S shows INPUTs and OUTPUTs
- Manufactured + Processed + Otherwise Used = Byproduct + Shipped in Product
- The form asks you to explain if the inputs and outputs don't balance.

Reporting in the Future..

In the future, when you have significant changes in use or byproduct, you will report on what caused those changes.

Electronic submission

The forms and instructions are here:

- www.mass.gov/dep/toxics/approvals/turforms.htm

Send in information to get set up in TURA database to: Walter Hope, MassDEP, One Winter Street, Boston, MA 02108. Register at: https://edep.dep.mass.gov/DEPlogin.aspx

State-Only Form R/A

- TURA (state)regulates more chemicals than EPCRA (federal) and a broader range of facilities (i.e., NAICS codes).

- Since perc is one of these chemicals, a federal Form R is not required, but facilities must submit a State-Only Form R/A in their toxics use report

State-Only Form R/A

- Maximum amount of the toxic chemical on site at any time during the calendar year
- Quantity of the toxic chemical entering each environmental medium

What's TUR planning?

- TUR plans involve an investigation into options for using less or using safer chemicals.
- Think about ways to use less, and consider substitutes.
- Other changes to consider:
  - Improve O&M
  - Worker Training
  - Equipment Modernization
- TURA does not force you to switch chemicals: *you have to make a good faith effort to consider alternatives* to material inputs and processes.
- The plan is certified by a qualified TUR Planner.

TURA is About Efficiency

- Watch your production levels with a good unit of product.
- Count your use and byproduct carefully.
- This will help you to know if you are using the chemical efficiently. Maybe you are using more than you need, or having losses that can be stopped. Detecting losses can indicate mechanical problems, and thus help prolong the working life of equipment as well as improve quality.

What you need to be doing now in preparation for planning?

- Begin thinking about ways to reduce use and byproduct
- Investigate alternatives

TUR Planning

The state will assist you with TUR planning.

We will have a series of trainings closer to the 2012 planning deadline.

A Dry Cleaning Template will be available.

Look for information in the mail and check back on program web sites.

mass.gov/dep/toxics/toxicsus.htm

mass.gov/envir/ota

www.turi.org/community/wet_cleaning

HELP IS AVAILABLE

- The MA Office of Technical Assistance provides free, confidential help, including onsite visits.

  Marina Gayl at 617-626-1077

  Rick Reibstein at 617-626-1062

- The MA Toxics Use Reduction Institute has information on dry cleaning alternatives.

  Pam Eliason at 978-934-3142

  Joy Onasch at 978-934-4343

- The MA DEP staff provide clarifications and explanations of the TURA regulations.

  Lynn Cain at 617-292-5711

Industry Resources

1. The North East Fabricare Association has been assisting cleaners in Massachusetts for over 35 years.

   Telephone: 800-442-6848

   E-mail: peteblke@aol.com

   Cell Phone: 617-791-0128

2. The Korean Dry Cleaners Association supports many dry cleaners across Massachusetts.

   Contact: Myeong Lowe

   E-Mail: sudbury19@juno.com

   Cell Phone: (617) 767-5693