



Dry Cleaners

TOXICS USE REDUCTION

Opportunities Matrix



For use with MassDEP's Toxic Use Reduction Program



This Toxics Use Reduction Opportunities Matrix is being provided as a simple way to document your efforts to reduce the use of perchloroethylene or reduce the amount lost as emissions and leaks.

For most dry cleaners TUR involves many of the steps already taken to comply with air emission requirements. The ideas listed here are taken from the *Dry Cleaners Environmental Certification Workbook* and other governmental publications.

Important Notice

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Step One. Gathering Information on Possible TUR Activities

We contacted the following information sources on how to reduce chemical usage or minimize waste:

<input type="checkbox"/> General Literature , such as	ID Code
<p><i>A Pollution Prevention Guide for the Dry Cleaning Industry</i> www.dnrec.state.de.us/deldrycl.htm</p>	T-1
<p><i>Assistance & Pollution Prevention for Garment Cleaning</i> http://www.newmoa.org/prevention/newsletters/18-2/vol18_2.pdf</p>	T-2
<input type="checkbox"/> More Technical Literature , such as	
<p><i>A Feasibility and Cost Comparison of Perchloroethylene Dry Cleaning to Professional Wet Cleaning</i> http://www.turi.org/Our_Work/Small_Businesses/Dry_Cleaning</p>	T-3
<input type="checkbox"/> Talked to vendors and/or equipment manufacturers.	T-4
<input type="checkbox"/> Visited or plan to visit a TURI's Wet Cleaning Demonstration Sites	T-5
<input type="checkbox"/> Brain-Storming sessions with workers	T-6
<input type="checkbox"/> Consulted with Office of Technical Assistance personnel	T-7
<input type="checkbox"/> Other sources of information: _____	T-8

NOTE: In the matrix that follows insert the appropriate idea code for the source of your information on the TUR technique.



Step Two. Matrix of Possible TUR Activities

Good housekeeping and leak detection/repair are easy methods of preventing waste that **also save money.**



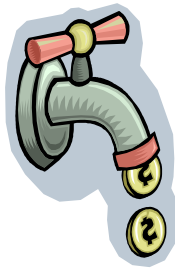
1. Good Housekeeping: Container Management	
<u>Technique:</u>	<u>ID Code:</u>
Yes <input type="checkbox"/> No <input type="checkbox"/> We use containers that are in good condition. They don't leak and are resistant to chemical damage.	_____
Yes <input type="checkbox"/> No <input type="checkbox"/> We tightly seal all lids and bungs of the containers.	_____
Yes <input type="checkbox"/> No <input type="checkbox"/> We make sure the chemical containers are placed on a crack-free surface	_____
Yes <input type="checkbox"/> No <input type="checkbox"/> We obtained trays or other containment items to put under containers to catch leaks or spills.	_____
Yes <input type="checkbox"/> No <input type="checkbox"/> Use spigot pumps to dispense new materials and funnels to transfer waste to storage containers.	_____

These are not the ONLY container management techniques that are TUR. List any others you are using.

<u>Technique:</u>	<u>ID Code:</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____



Describe the steps you have taken to insure all these efforts remain in place.



2. Good Housekeeping: Leak Detection & Repair

<u>Technique:</u>	<u>ID Code:</u>						
<table border="0"> <tr> <td style="padding-right: 10px;">Yes</td> <td>No</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>We use good record-keeping to track amount of material purchased, delivered and sent off-site as waste.</td> </tr> </table>	Yes	No		<input type="checkbox"/>	<input type="checkbox"/>	We use good record-keeping to track amount of material purchased, delivered and sent off-site as waste.	_____
Yes	No						
<input type="checkbox"/>	<input type="checkbox"/>	We use good record-keeping to track amount of material purchased, delivered and sent off-site as waste.					
<table border="0"> <tr> <td style="padding-right: 10px;">Yes</td> <td>No</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>We check weekly for leaks.</td> </tr> </table>	Yes	No		<input type="checkbox"/>	<input type="checkbox"/>	We check weekly for leaks.	_____
Yes	No						
<input type="checkbox"/>	<input type="checkbox"/>	We check weekly for leaks.					
<table border="0"> <tr> <td style="padding-right: 10px;">Yes</td> <td>No</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>We repair leaks immediately and keep parts on hand.</td> </tr> </table>	Yes	No		<input type="checkbox"/>	<input type="checkbox"/>	We repair leaks immediately and keep parts on hand.	_____
Yes	No						
<input type="checkbox"/>	<input type="checkbox"/>	We repair leaks immediately and keep parts on hand.					

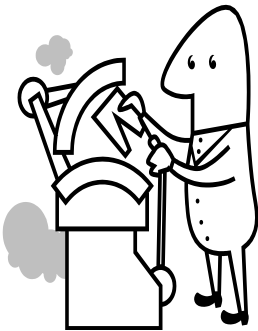
These are not the ONLY leak detection and repair techniques that are TUR. List any others you are using.

<u>Technique:</u>	<u>ID Code:</u>

Describe the steps you have taken to insure all these efforts remain in place.



Proper operations and equipment maintenance are other ways of preventing waste.



3. Proper operations

<u>Technique:</u>	<u>ID Code:</u>
Yes <input type="checkbox"/> No <input type="checkbox"/> We clean lint filters often to maintain equipment efficiency and reduce maintenance requirements.	_____
Yes <input type="checkbox"/> No <input type="checkbox"/> We drain all cartridge filters in closed containers.	_____
Yes <input type="checkbox"/> No <input type="checkbox"/> We replace faulty/worn gaskets on button traps and around the cleaning machine.	_____
Yes <input type="checkbox"/> No <input type="checkbox"/> We minimize the time the lint baskets, and the door of the dry cleaning machine are open.	_____
Yes <input type="checkbox"/> No <input type="checkbox"/> We take care that bulky items are completely dry before removing them from the dryer.	_____
Yes <input type="checkbox"/> No <input type="checkbox"/> We place all saturated lint from lint baskets in sealed hazardous waste containers.	_____

These are not the ONLY proper operations techniques that are TUR. List any others you are using.

<u>Technique:</u>	<u>ID Code:</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Describe the steps you have taken to insure all these efforts remain in place.



The TUR techniques listed above are simple, low cost measures. Efforts which might also be considered include equipment upgrades.



4. Equipment Upgrades

<u>Technique:</u>	<u>ID Code:</u>
Yes <input type="checkbox"/> No <input type="checkbox"/> We are (or are considering) replacing a transfer machine with a dry-to-dry machine.	_____
Yes <input type="checkbox"/> No <input type="checkbox"/> We are (or are considering) replacing cartridge filters with spin disk filters that can be cleaned without opening.	_____
Yes <input type="checkbox"/> No <input type="checkbox"/> We are (or are considering) adding a refrigerated condenser to the dry cleaning machine.	_____

These are not the ONLY equipment upgrades that are TUR. List any others you are using or considering.

<u>Technique:</u>	<u>ID Code:</u>
_____	_____
_____	_____
_____	_____

Describe the steps you have taken to pursue these upgrades.

While nothing in TURA requires that dry cleaners stop using perchloroethylene, other effective and safer cleaning systems are available. Their feasibility depends on equipment costs, availability of space and other issues.



NOTE: n-propyl bromide is not included in the above list. It is a TURA-listed chemical, like perc, and therefore is not considered a suitable safer alternative.

4. Alternative Cleaning Systems

<u>Technique:</u>	<u>ID Code:</u>
Yes <input type="checkbox"/> No <input type="checkbox"/> We are (or are considering) professional wet cleaning.	_____
Yes <input type="checkbox"/> No <input type="checkbox"/> We are (or are considering) using carbon dioxide cleaning.	_____
Yes <input type="checkbox"/> No <input type="checkbox"/> We are (or are considering) using siloxanes based system.	_____
Yes <input type="checkbox"/> No <input type="checkbox"/> We are (or are considering) using high-flash point hydrocarbons system.	_____
Yes <input type="checkbox"/> No <input type="checkbox"/> We are (or are considering) using acetal-based system.	_____
Yes <input type="checkbox"/> No <input type="checkbox"/> We are (or are considering) using propylene glycol ethers based system.	_____

The chemicals listed above are not the ONLY substitutions for perc. List any others you are using or considering.

<u>Technique:</u>	<u>ID Code:</u>
_____	_____
_____	_____
_____	_____
_____	_____

Describe the steps you have taken to pursue these substitutions.