

## A SELF-AUDIT CHECKLIST FOR DRYCLEANERS



Like your gas and electric bills, waste management is another cost of doing business which can be minimized with proper planning and consideration. This checklist will help you pinpoint pollution prevention opportunities in your plant. Keep it on file for your use and review it periodically. Do not hesitate to call the appropriate contacts listed in the packet with specific questions.

**DIRECTIONS:** Use this checklist to identify areas in your processes where you can prioritize, make a commitment to, and implement pollution prevention. Pollution prevention is an on-going practice. Once you start, you will continually find more ways to make your business more efficient. The accompanying fact sheets highlight some of important regulatory requirements pertaining to drycleaners, and provide more specific information for select items mentioned on this list.

Train Your Employees

O1 Do you conduct required training on hazardous materials and explain how to read and use Material Safety Data Sheets for all chemicals?

2. Are employees trained in spill prevention (for example, detecting leaks in the equipment)?

3. Do you consider the cost of waste management before buying new materials and equipment or accepting samples from vendors?

4. Are your employees aware of waste disposal costs and liabilities that your company incurs as a generator of hazardous waste?

5. Do you give recognition or financial rewards for employee initiative in waste minimization?

6. Do you have an emergency plan, and have employees been made aware of it?

Store Your Materials Properly

1. Are containers kept closed and secured?

2. Are chemical containers kept properly labeled (contents, date, hazardous properties)?

3. Are solvent storage tanks diked, and is the dike coated on the surface with a sealer?

4. Is there a level gauge on the storage tank?

5. Could a leak from a solvent drum be contained?

## Minimize Spills and Leaks

YES NO

Do you keep track of where spills have occurred so that you can take precautionary measures in the future?	
Do you use spigots/pumps to dispense new solvent, and funnels when transferring wastes to storage containers?	
3. Do you regularly inspect chemical containers and equipment to ensure they are not leaking?	
4. Do you inspect gasket and hose couplings and pumps for leaks?	
<ul> <li>5. Do you use leak detectors to monitor vapor loss? Areas of concern are: <ul> <li>Gaskets</li> <li>Pumps</li> <li>Air relief valves</li> <li>Storage containers</li> <li>Hose couplings and connectors</li> <li>Air vents</li> <li>(Portable, electronic leak detectors cost about \$140 and are required for some drycleaners under the new Clean Air Act requirements).</li> </ul> </li> </ul>	
6. Do you replace faulty/worn gaskets on the button trap and around the machine door?	
7. Do you regularly replace gaskets on dryer dampers?	
8. Do you use earthquake and shake proof containers and shelving?	
9. NEVER place or store spent cartridges on the ground!!	

## Use Good Housekeeping Methods

YES NO

Do you tightly seal all bungs and lids on containers?	
Do you drain solvent completely from your spent cartridges? Do you "cook" them for additional solvent? (Many drycleaners do this by placing the spent cartridge inside the machine and setting it on the dry cycle, while disengaging the wheel).	
3. Do you use caution when handling and transporting chemical containers or hazardous materials?	
4. Do you supervise your solvent deliveries to guard against discharges?	
5. Do you monitor equipment efficiency (e.g., solvent mileage pounds of clothes per gallon solvent)?	
6. Do you size your loads correctly (neither under- nor over-loading) to maximize solvent efficiency?	
7. Do you perform regular maintenance and upkeep on your equipment? In particular, you should:  _ Change filters according to pressure gauge reading.  _ Clean button trap frequently  _ Clean lint screens frequently  _ Clean fan blades  _ Clean condenser coils  _ Desorb carbon adsorbers (sniffers) before they are saturated  _ Check gaskets regularly on the following:  · aeration and deodorizer valves	

button trap     cleaning machine door gasket		
8. Do you periodically check with equipment/solvent suppliers for tips on reducing solvent loss?		
9. Do you monitor solvent emissions inside the plant twice yearly?		
10.Do you regularly check air vents for drippage?		
Segregate (Separate) Your Wastes	YES	NO
Do you keep your wastes separate to facilitate recycling and avoid production of additional hazardous wastes?		
Change Some of Your Procedures	YES	NO
Have you considered using some separator water as a pre-spotter? (Caution. If you use sulfate detergents you may get an acidic by-product by using separator water as a pre-spotters. This could produce a blue dye which may stain clothing).		
2. Have you replaced your hazardous pre-spotters with water-based, non-chlorinated pre-spotters?		
3. Do you wet clean as much as possible?		
4. Do you recover solvent from filter cartridges by draining the filters and heating the cartridges to vaporize and capture additional solvent?		
5. Do you properly maintain and keep on file your waste records and manifests?		
6. Do you minimize the time your machine door and button trap are open?		
7. Do you use optimal drying times and temperatures, and optimal condenser temperatures?		
8. Have you investigated ways to improve your extraction efficiency?		
9. If you use cartridge filters, do you add a pre-wash step whenever possible, and do you use a pre-lint filter? (Pre-lint filters can increase the life of your filter by 30%)		
Replace/Retrofit Older Equipment	YES	NO
1. Are you using, or have you investigated purchasing a dry-to-dry unit to replace transfer machine?		
Have you considered purchasing a refrigerated condenser system to replace vented machines and reduce solvent loss.		
Have you installed or retrofitted a solvent recovery system (carbon adsorption, refrigerated condenser, or azeotropic distillation system)?		
4. Do you have a spill containment tray under and around your equipment (made of a non-porous material, capable of holding 110% of the solvent tank above it) to capture and hold solvent leaks and spills?		
5. Do you use a spin disc filtration system in place of cartridge filters?		
6. Do you use a wheel sensor to check the dryness of the clothes?		

7. Have you considered using an evaporator for your separator water? Please note that you must use an EPA-approved evaporator which will monitor the amount of Perc present in the water. (See insert: <i>Environmental Regulations</i> )		
Use Care With Floor Drains	_	_
If floor drains are connected to a holding tank:	YES	NO
Have you checked to make sure the tank meets state requirements for under-ground/above-ground storage tanks or hazardous waste tank rights?		
2. Do you have the tank pumped out regularly by a licensed waste hauler for proper, legal disposal?		
if floor drains are connected to a shallow injection well:	YES	NO
Have you temporarily plugged them and contacted your local POTW?		
2. Have you determined whether floor drains are required? In some localities they are. If floor drains are not required, have they been properly closed or sealed?		
3. If floor drains are required by state or local building, fire or plumbing codes, are they connected to a holding tank to collect the wastes they receive (preferred alternative) or to municipal sanitary sewer (if allowed)?		
If floor drains are connected to a municipal sanitary sewer:	NO	YE
Have you followed all state and local permitting requirements? (Consult you local wastewater treatment plant to find out your town's requirements).		
Are you following EPA recommendations that floor drain discharges be directed first through an oil/water separator of at least 1000 gallons?		
General Business Practices - Marketing and Cost Accounting	YES	NO
Do your marketing strategies incorporate the positive public image related to pollution prevention?		
2. Do you publicize your company's efforts to reduce waste and protect the environment?		
3. Do you regularly use paper and can recycling centers available in your community?		
4. Do you know the waste production costs associated with the various processes in your plant? If so, do you "charge" the cost directly to the process when figuring prices?		

Primary Source: <u>A Self-Audit Checklist for Drycleaners</u>, September, 1994, Montana Pollution Prevention Program.

This checklist was compiled by the Colorado Department of Public Health and Environment's Pollution Prevention Program. For more information call Kirk Mills at (303) 692-2977.