

# WEATHER THE STORM—SAVE YOUR BUSINESS

## PREVENT CHEMICAL RELEASES DURING FLOODS AND STORM SURGES



### Did You Know?

The NJ Department of Environmental Protection issued regulations mandating that all PERC dry cleaning equipment located at residential locations cease operations by December 21, 2020.

## DRY CLEANING BUSINESSES

New Jersey's almost 1,100 dry cleaning shops play an important role in the community, but their operations involve some hazardous chemicals that can endanger people and the environment during floods and storm surges. Some chemicals used in dry cleaning are toxic to humans and fish. For example, Perchloroethylene (perc), a potential human carcinogen, is the most commonly used dry cleaning solvent.

It's critical to develop a flood plan to minimize releases that can lead to both property loss and chemical exposure for humans and the environment.

### SAVE MONEY—SAVE YOUR BUSINESS

Here's how:

- Get your business up and running again sooner.
- Prevent expensive chemicals from being washed away.
- Prevent spills instead of paying clean-up costs.
- Lower clean-up costs by switching to safer chemicals.
- Reduce or eliminate monitoring, tracking, and reporting costs.
- Reduce permitting and disposal costs with safer chemicals.<sup>1</sup>
- Retain property value by not contaminating it with toxic chemicals.
- Potentially lower workers' comp and liability insurance costs.
- Marketing advantage of being a green business.

<sup>1</sup> Air Permits range in cost from \$2,527 (5 year) for PERC Dry Cleaners and \$820 (5 year) for Non-PERC Solvent dry cleaners. Hazardous Waste Fees run from \$30–\$835 per year.

## AS EASY AS 1, 2, 3...

Three steps to reduce toxic exposures during a flood or storm surge.

### 1. SUBSTITUTE



Switch to safer chemicals or processes when feasible.

### 2. REDUCE



Keep chemical inventory to a minimum.

### 3. SECURE



Store chemicals properly and securely above the base flood elevation.

# PREVENTION STRATEGIES

By using EPA's Best Management Practices (BMPs) guide together with energy, water and solid waste management strategies, businesses can prevent pollution and save money on chemical and compliance costs. Elements of a comprehensive strategy include: Safe storage, spill preparedness, safer chemicals, smart handling, proper disposal, record keeping and training.

## 1. Substitute and Reduce the Hazard of a Chemical Spill

The most effective way to minimize a toxic release is to eliminate the hazard. This can be done by switching to safer chemicals and processes. Alternative cleaning media, such as wet cleaning and petroleum-based solvents and machines, are available and effective. Several studies report that 30% to 70% of garments dry-cleaned using PERC can be wet-cleaned satisfactorily while controlling fabric deterioration and shrinkage. Large dry-cleaning companies should consider using satellite stores that do not perform dry-cleaning on the premises.

Examples of actions to take include:

- Switch from solvent based dry cleaning to wet cleaning.
- Eliminate PERC-based spotting agents.
- Avoid solvent-based spotting agents.

### Safer Technologies

Professional wet cleaning can replace the use of PERC and is a water-based process that uses computer-controlled washers and dryers along with biodegradable detergents and specialized finishing equipment to process delicate garments that would otherwise be dry-cleaned.

The Liquid Carbon Dioxide (CO<sub>2</sub>) method combines liquid carbon dioxide with specially formulated cleaning agents in a machine under high pressure (700 psi). It is non-toxic, non-combustible, and does not contribute to hazardous air pollutant (HAP) and volatile organic compound (VOC) emissions.

## 2. Reduce Your Chemical Inventory

- Review your chemical inventory and ordering practices to ensure it is appropriate with your business needs.
- Schedule hazardous wastepick-up to minimize the amount of time waste is on-site.

## 3. Safe Chemical Storage

- Store waste containing solvents in closed containers and dispose it as hazardous waste.
- Store separator water in closed containers and dispose it as hazardous waste.
- The dry cleaning machine should have secondary containment.
- Solvent and solvent waste containers should have secondary containment such as a secondary containment pallet.
- Keep chemicals off floors and move from lower shelves to a higher, but appropriately safe, location in the building.
- Anchor shelving areas to prevent them from tipping over from water movement through the building.

### Housekeeping Tips

- At the end of each work shift, be sure chemical containers are tightly closed and returned to their designated storage space.
- Routine schedule maintenance of PERC equipment to prevent leaks from liquid and vapor.
- Select appropriate containers to store liquids inside.



### KNOW YOUR FLOOD RISK

Determine the flood risk of your building and develop a flood management preparedness plan. See the factsheet, *Weather the Storm—Save Your Business: Flood-Proof Your Business*, for more information on how to determine your flood risk and develop an emergency flood plan.

### Resources

- EPA Region 2 Insight Bulletin: [Dry Cleaning Sector Best Management Practices](#)
- EPA's Safer Choice: [www.epa.gov/saferchoice](http://www.epa.gov/saferchoice)
- EPA P2 What You Can Do About Pollution Prevention—Business Resources: [www.epa.gov/p2/p2-resources-business](http://www.epa.gov/p2/p2-resources-business)

This factsheet is not an exhaustive list. **For additional information and resources, please go to [www.njwec.org/p2resources](http://www.njwec.org/p2resources).**

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