



Dry Cleaning Industry's Contaminants of Concern (COCs)

Office of Land Quality

(317) 232-3215 • (800) 451-6027 www.idem.IN.gov 100 N. Senate Ave., Indianapolis, IN 46204

Guidance Created: November 11, 2007

Guidance Revised: April 8, 2014; April 12, 2018; August 12, 2021

Dry cleaners use non-water based solvents to remove dirt and stains from clothes. The most common solvents used are tetrachloroethene (perchloroethylene) and trichloroethene. These chemicals can breakdown further into other hazardous chemicals that must be considered when investigating dry cleaners. Historically, Stoddard solvent and carbon tetrachloride have been utilized. Dry cleaners generate the following wastes: used filters and filter cakes, spent carbon and cartridges from carbon absorbers, and still residues (evaporator or cooker sludge) where hazardous chemicals may be found.

The following tables summarize the most common COCs for the dry cleaning industry and the analytical methods that should be utilized at each sampling location (for both soil and groundwater). The Remediation Closure Guide (RCG) may need to be followed for a vapor intrusion investigation if the concentration of the COCs exceeds the groundwater vapor screening values listed in the RCG.

Table 1A: Contaminants of Concern if using Tetrachloroethene, Trichloroethene, and/or 1,1,1-Trichloroethane

Contaminants of Concern	Analytical Methods (SW-846 methods unless otherwise noted)
Tetrachloroethene (perchloroethene, perchloroethylene, PCE, PERC)	8260
Trichloroethene (trichloroethylene, TCE)	8260
1,1,1-Trichloroethane (1,1,1-TCA)	8260
Cis-1,2-dichloroethene (cis-1,2-dichloroethylene, cis1,2-DCE)	8260
Trans-1,2-dichloroethene (trans-1,2-dichloroethylene, trans-1,2-DCE)	8260
Vinyl Chloride	8260

Table 1B: Contaminants of Concern if solvents other than Tetrachloroethene, Trichloroethene, and/or 1,1,1-Trichloroethane were utilized

Contaminant of Concern	Analytical Methods (SW-846 methods unless otherwise noted)
VOCs including naphthalenes (naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene)	8260

Notes:

- The IDEM's Remediation Closure Guide (RCG) should be followed to develop a site specific list of COCs.
- The IDEM reserves the right to modify these requirements dependent upon historical site conditions and the type and nature of the release.
- The IDEM also recommends using the most updated analytical method.
- The IDEM reserves the right to request additional chemicals of concern based on analytical data provided.

References

The IDEM's Remediation Closure Guide (RCG)

http://www.in.gov/idem/cleanups/files/remediation_closure_guide.pdf

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846)

[Hazardous Waste Test Methods / SW-846 | US EPA](#)

RCRA In Focus Dry Cleaning

<https://www.epa.gov/sites/production/files/2015-01/documents/dryclean.pdf>

State Coalition for Remediation of Dry Cleaners

<https://astswmo.org/state-coalition-for-remediation-of-drycleaners-scrd-publications/>

The state of Indiana Vapor Intrusion Webpage

[IDEM: Environmental Cleanups: Vapor Intrusion](#)