

MassDEP

Dry Cleaner Environmental Results Program

What it is / What We've Learned about Dry Cleaners

December 2, 2014

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What Does ERP Involve?

- Annual Compliance Certification
- Multi Media: Air MACT, Hazardous Waste, Industrial Wastewater
- Covers required control equipment, proper operational and recordkeeping procedures, reporting
- Return to Compliance Plans
- Comprehensive Compliance Workbooks
- Annual \$500 fee

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What is the Universe Like

- How Many:
 - Currently 352 vs 662 in 1998
- Perchloroethylene use / total pollution:
 - Currently 55 gal/dry cleaner vs 152 gal in 1998
- Hazardous Waste Generation:
 - Currently 493 lbs/dry cleaner vs 1213 lbs in 1998
- Random Inspections indicate that the certifications result in better compliance

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Expanded in 2013 to Promote Perc Reduction

Changed Certification to:

- Promote efficient perc use and toxics use reduction
- Obtain data on use of alternatives in conjunction with perc
- Obtain data on dry cleaners' plans for replacing aging equipment: schedule, options they would consider, factors influencing their decision
- Promote the use of a simplified alternative assessments tool developed by TURI and MassDEP

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Additional Changes

Added extensive information on perc alternatives to the workbook:

- Descriptions
- Comparative Data
- Case Studies
- Simplified Assessment Tool that compares environmental impacts, cost, effectiveness, health safety, water use, energy requirements of each alternative to that of perc

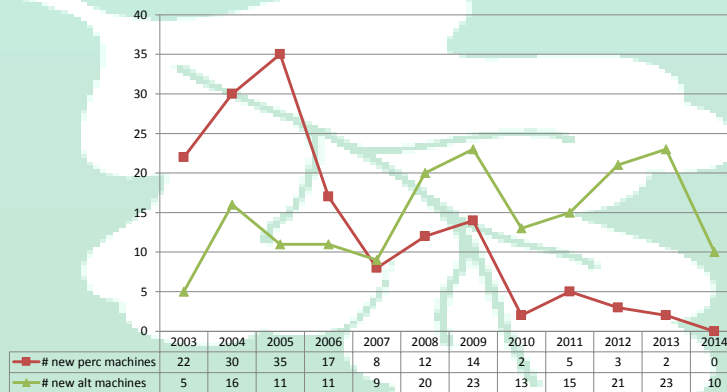
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So What Have We Learned?

Increasing Adoption of Non Perc Alternatives:

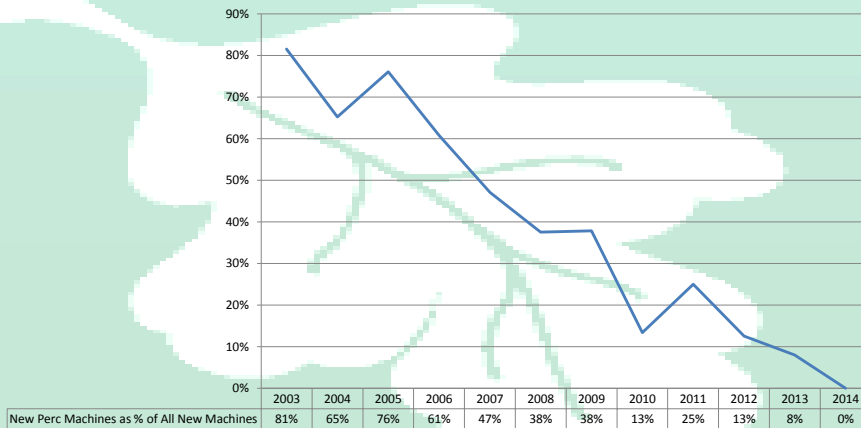
Perc & Alternative Machine Installations by Year



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New Perc Machines as % of All New Machines



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What have they Switched to?

- 110 have switched entirely out of perc since 2003 – mostly to hydrocarbon
- 65 of the 350 still using perc also use an alternative
 - 50 use wet cleaning
 - 15 use hydrocarbons

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What Did Dry Cleaners Say

By 2014:

- About half calculate solvent mileage
- Replacement of equipment imminent:
 - 29% in 0-2 years
 - 45% in 2-5 years
 - 19% in 5-10 year
 - 7% in >10 years
- About half did the alternatives assessment

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What are Dry Cleaners Considering?

- About 2/3rds have seen alternative in operation
- About half think an alternative would work
- Ranking of Alternatives:
 - 40% Hydrocarbon and Wet Cleaning
 - 12% Acetal (Solvon K) and Propylene Glycol (Rynex / Gen-X)
 - 5% Siloxane (Green Earth) 1% n-Propyl Bromine

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What Factors Influence their Decisions?

- Cost: cited by 49%
- Environment: cited by 47%
- Safety: cited by 44%
- Health: cited by 43%
- Performance: cited by 42%
- Regulations: cited by 32%
- Energy: cited by 26%
- Facility Location: cited by 9%

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