

Safer Alternatives for Degreasing

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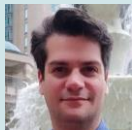
Session Layout



Overview



Familiar Safer Options and Experience

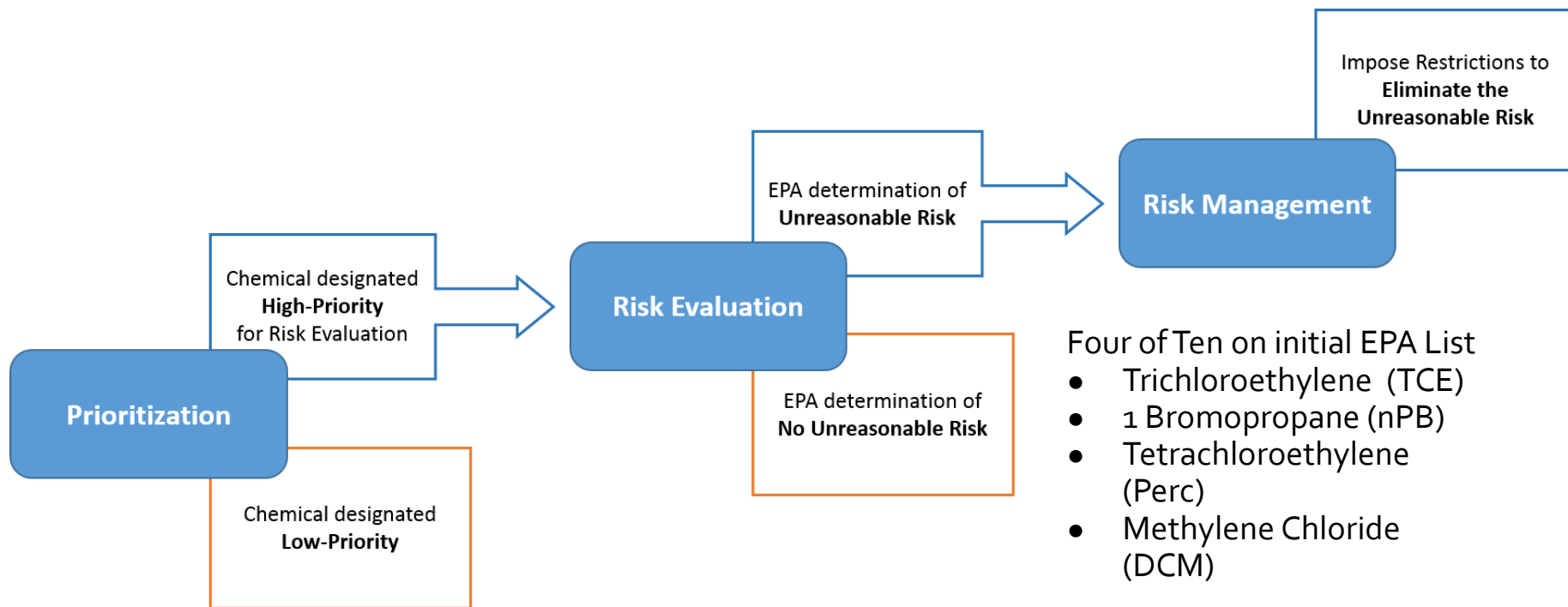


Outside the Traditional Box Option

Getting up to Speed

- Vapor degreasing an important tool in many manufacturing settings
- Halogenated solvents the historical workhorse
- TURI's Drive to Zero for halogenated solvents plans
 - Grants available
 - Conducting alternatives assessment for safer options to TCE in vapor degreasing
- EPA's TSCA evaluations

EPA's Risk Evaluation Process

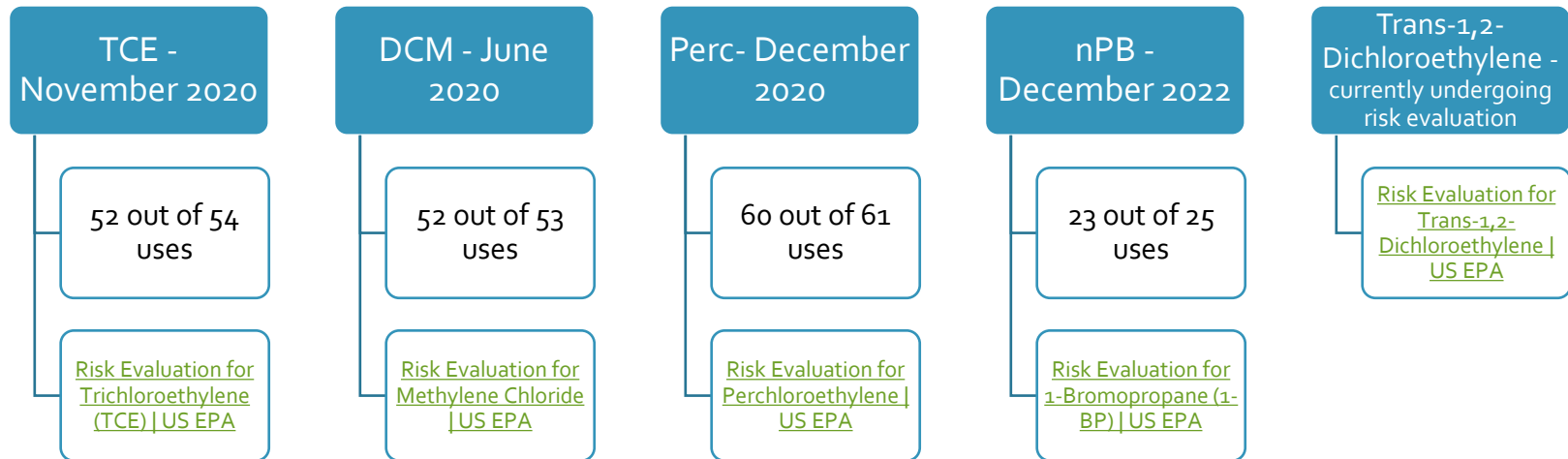


Four of Ten on initial EPA List

- Trichloroethylene (TCE)
- 1 Bromopropane (nPB)
- Tetrachloroethylene (Perc)
- Methylene Chloride (DCM)

Final Risk Evaluation - Conditions of unreasonable risk to human health

EPA assessed the impact on workers, occupational non-users, consumers, and bystanders to consumer use



Five halogenated solvents are prioritized for attention in this campaign

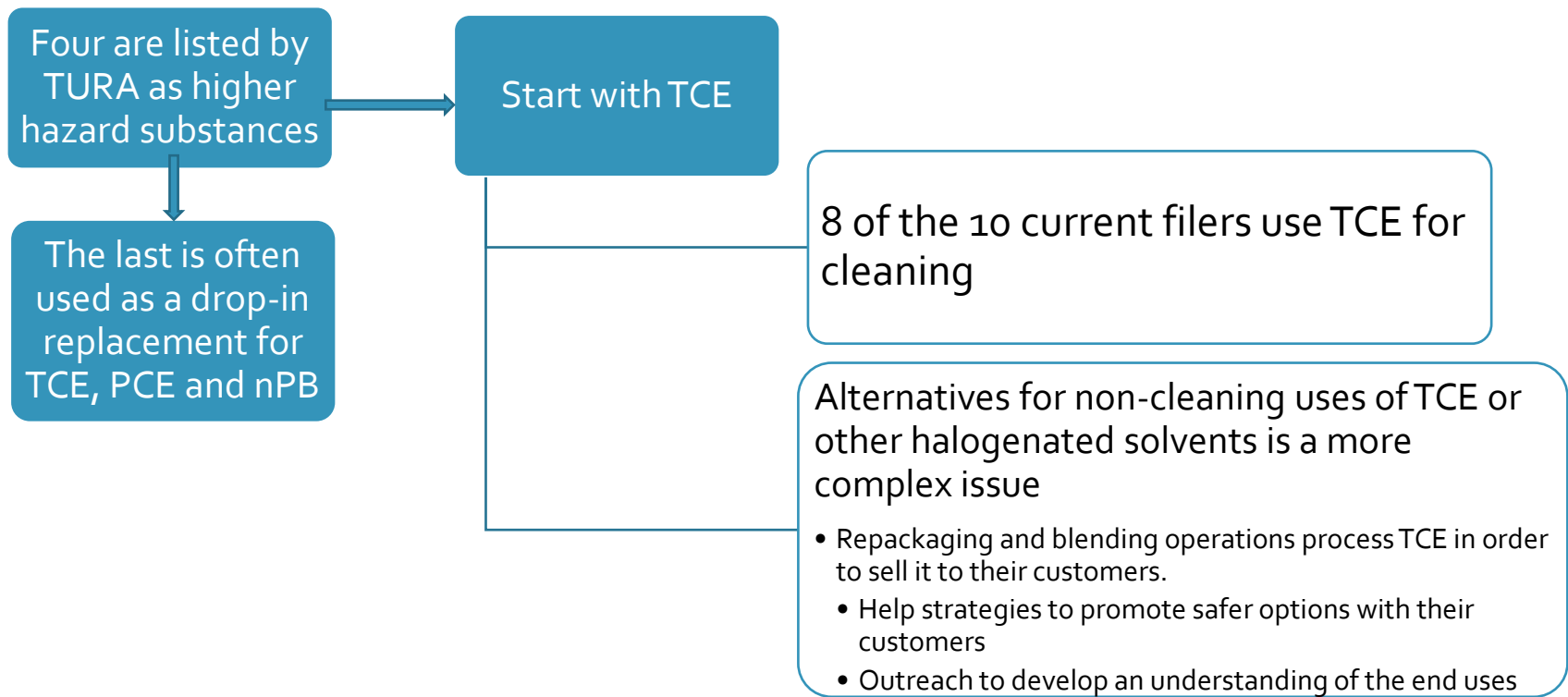
“Drive to Zero” for TCE

tDCE and nPB, which are commonly identified as “drop-in” substitutes for TCE

PCE, which has four filers currently, and for which small business activities like those associated with dry cleaners may be expanded upon

DCM, used in high volumes in Massachusetts, and a solvent for which TURI has existing expertise in identifying viable alternatives

Why These Solvents



Goal for Campaign TCE Focus

1

Eliminate filers using TCE in cleaning applications by 2024

- Reduce all cleaning application uses to below 1,000 lb/year

2

Secondary goal: Initiate research and supply chain engagement support for repackaging and blending of halogenated solvents

- Help eliminate customer demands for these solvents through education and provision of safer options.

What the Process Looks Like

Quarterly Milestones	Time frame
Draft policy article about effort	Y1 Q1
Reach out to all remaining TCE cleaning users	Y1 Q1
Test request forms	Y1 Q1/Q2
Site visits	Y1 Q2
Lab testing	Y1 Q2/3
Research on novel options	Y1 Q2/3/4 Y2 Q1
Pilot testing	Y1 Q3/4 Y2 Q1
Grant applications	Y1 Q4
Implementation follow up	Y1 Q4 Y2 Q1/2/3
Create and distribute TCE case studies	Y1 Q4 Y2 Q1/2/3
Update of efforts at TUR conference	Y1 Q3 Y2 Q1/3

Grant Opportunities

- Resources to offset cost of switching chemicals/process to safer options
- Summer application timeframe
 - Fall awards
- Possible student internships to assist with on-site testing and implementation efforts

Research novel options



HSPIP TESTING



EQUIPMENT
RESEARCH

Invite you to reach out if you
are still using any of the
solvents below reporting
thresholds but would like to
eliminate

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