

EPA's Proposed Rule Regulating Methylene Chloride and Trichloroethylene

New Regulations Impact on the HMA Industry

**Northeast Asphalt User Producer
Group Meeting**

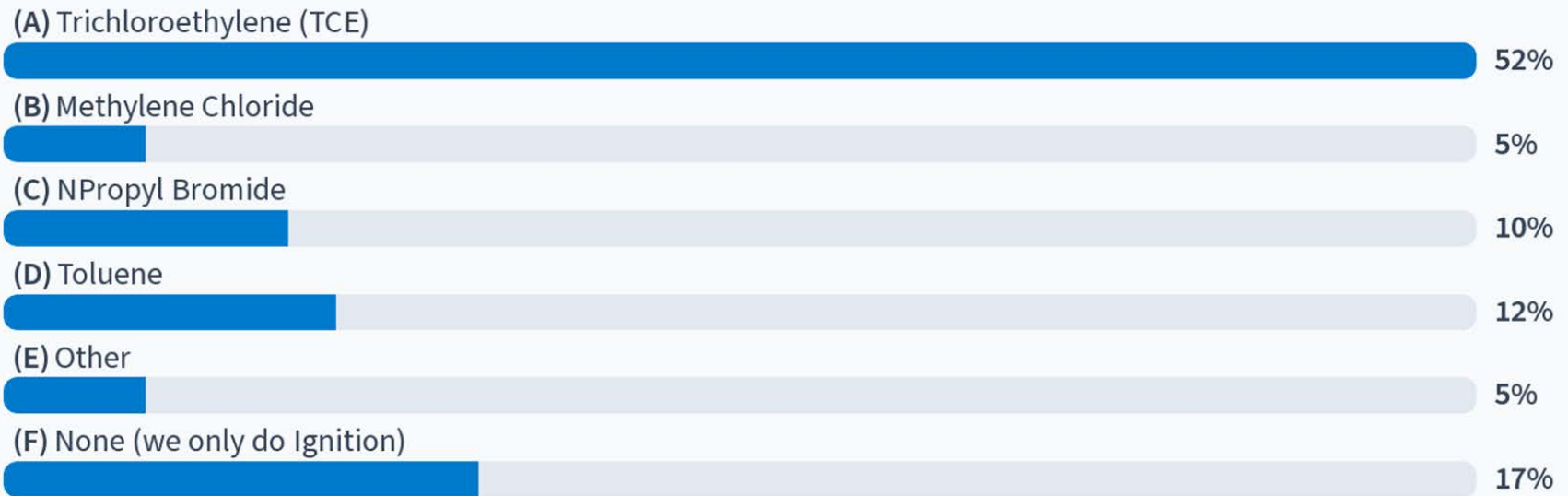
October 2024, Springfield MA

Presenter:
Ann Baranov
Managing Director
InfraTest USA Inc.

AGENDA

- EPA Finalized Ban On Methylene Chloride Use
- New Rule Highlights
- Implications for HMA Industry
- Upcoming EPA Ban Proposal for TCE
- Questions

What is the Solvent of Choice At Your DOT Lab?



60 Votes

The Final Regulation Methylene Chloride

**EPA's
final
rule
will:**

- Prohibit manufacture, processing, and distribution of methylene chloride for all consumer uses
- Prohibit most industrial and commercial uses
- **Require a Workplace Chemical Protection Program (WCPP) for 13 specified conditions of use**
- **Include a critical use exemption under TSCA section 6(g)**
- Establish recordkeeping and downstream notification requirements
- Provide *de minimis* threshold for regulation

THE FOLLOWING USES WILL CONTINUE WITH STRICT CONTROLS UNDER THE WCPP IN THE FINAL RULE:



Final Regulation:

Exempt Uses with Workplace Chemical Protection Program (WCPP)

- Manufacturing (domestic manufacture)
- Manufacturing (import)
- Processing: processing as a reactant (AIM Act refrigerants)
- Processing: incorporation into a formulation, mixture, or reaction products
- Processing: recycling
- Processing: repackaging
- **Industrial and commercial use as a laboratory chemical** ✓
- Industrial and commercial use as a paint and coating remover from safety critical, corrosion-sensitive components of aircraft and spacecraft
- Industrial or commercial use as a bonding agent for solvent welding
- Industrial and Commercial use as a processing aid
- Industrial and Commercial use for plastic and rubber products manufacturing
- Industrial and Commercial use as a solvent that becomes part of a formulation or mixture, where that formulation or mixture will be used inside a manufacturing process, and the solvent (methylene chloride) will be reclaimed
- **Disposal** ✓

Final
Regulation:

Workplace
Chemical
Protection
Program
(WCPP)

THE WCPP FINALIZES INHALATION EXPOSURE LIMITS:

Permissible exposure limit PEM:

8-hour time-weighted average (TWA): **2 ppm**

VS. Current OSHA is 25 ppm

Short-term Exposure Limit STEL:

15-minute TWA: **16 ppm**

VS. Current OSHA is 125 ppm

Existing Chemical Exposure Limit (ECEL) Action Level:

1 ppm

VS. Current OSHA is 12.5 ppm

Final Regulation:

NEW RULE
TO DO
CHECKLIST

Workplace Chemical Protection Program Components:

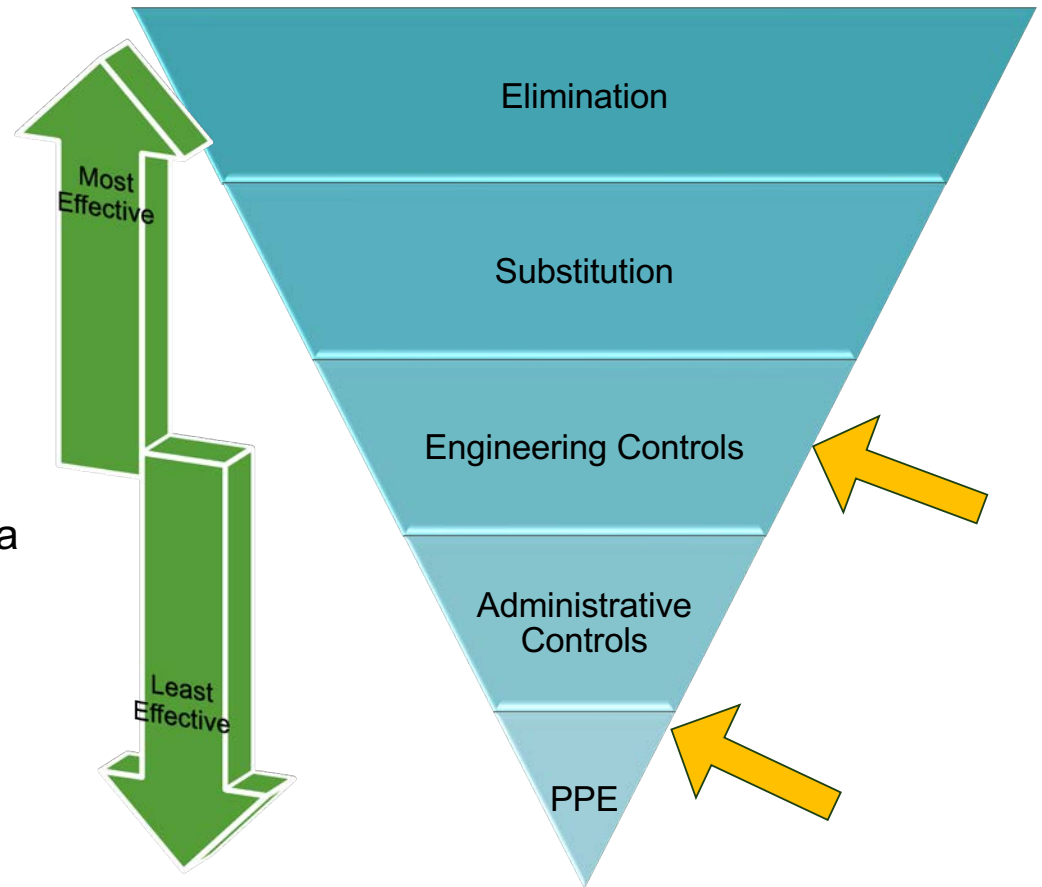
- Initial Monitoring – Report
- Periodic Monitoring Based on Existing Chemical Exposure Limit(ECEL); ECLÉ Action Level, and EPA STEL (short-term exposure limit)
- PPE Stock Revision based on monitoring report
- Establish Regulated Areas
- Exposure Control Plan

Final Regulation:

NIOSH
(National Institute of Occupational Safety & Health)
Hierarchy of Controls

WCPP REDUCES COMPLIANCE BURDENS BY FOLLOWING A FAMILIAR FRAMEWORK:

- Requirements to reduce exposures based on the NIOSH hierarchy of controls
- Respirator selection criteria to protect workers from any remaining risks



Final Regulation:

Timeframe for
Workplace
Chemical
Protection
Program
Implementation

WCPP IMPLEMENTATION TIMEFRAME

WCPP Compliance Phase	Final Compliance Dates & Working Timeframes from Publication of Final Rule	
	General Industry	Federal Agencies and Federal Contractors
Initial Monitoring	May 5, 2025 / 12 months	November 9, 2026 / 30 months
ECEL/EPA STEL	August 1, 2025 / 15 months	February 8, 2027 / 33 months
PPE/Respirators	August 1, 2025 / 15 months	February 8, 2027 / 33 months
Establish Regulated Area	August 1, 2025 / 15 months	February 8, 2027 / 33 months
Exposure Control Plan	October 30, 2025 / 18 months	May 10, 2027 / 36.5 months

Final Regulation:

Recordkeeping and Downstream Notification Changes

- SDS updates are required for downstream notification of the prohibitions
 - For conditions of use that would not be prohibited under the final regulation, the Safety Data Sheets (SDSs) must be updated by adding information on prohibitions and relevant dates
- Recordkeeping requirements include maintenance of normal business records and records related to WCPP monitoring and compliance

IMPACT ON HMA INDUSTRY

- ❑ Need to identify a replacement solvent for TCE alleviated
- ❑ DCM is a Suitable Replacement for TCE on several AASHTO Standards
- ❑ Acceptable for use per applicable standards:
 - ✓ **AASHTO T 164**
 - ✓ **AASHTO T 319**
 - ✓ **ASTM D 8159**
 - ✓ **ASTM D 2172**
- ❑ Additional Resources allocated for compliance with WCPP including: monitoring/ training /equipment upgrades – fume hoods, better PPE, closed solvent handling systems
- ❑ Depending on results of TCE Ban Rule standards may need to be updated to include DCM

TRICHLOROETHYLENE
RULEMAKING UPDATE
UNDER THE TOXIC
SUBSTANCES
CONTROL ACT
(TSCA)

- ❑ Trichloroethylene (TCE): Risk Evaluation and Risk Management under TSCA Section 6 final rule has just been accepted for interagency review
- ❑ It's scheduled to take **90 days** but could take longer
- ❑ Publication of the rule follows the conclusion of interagency review
- ❑ EPA must evaluate the risks presented by the chemical under the conditions of use and determine if the chemical presents an unreasonable risk of injury to health or the environment under the conditions of use
- ❑ Without consideration of cost or other non-risk factors

ALWAYS THINK!

SAFETY FIRST!

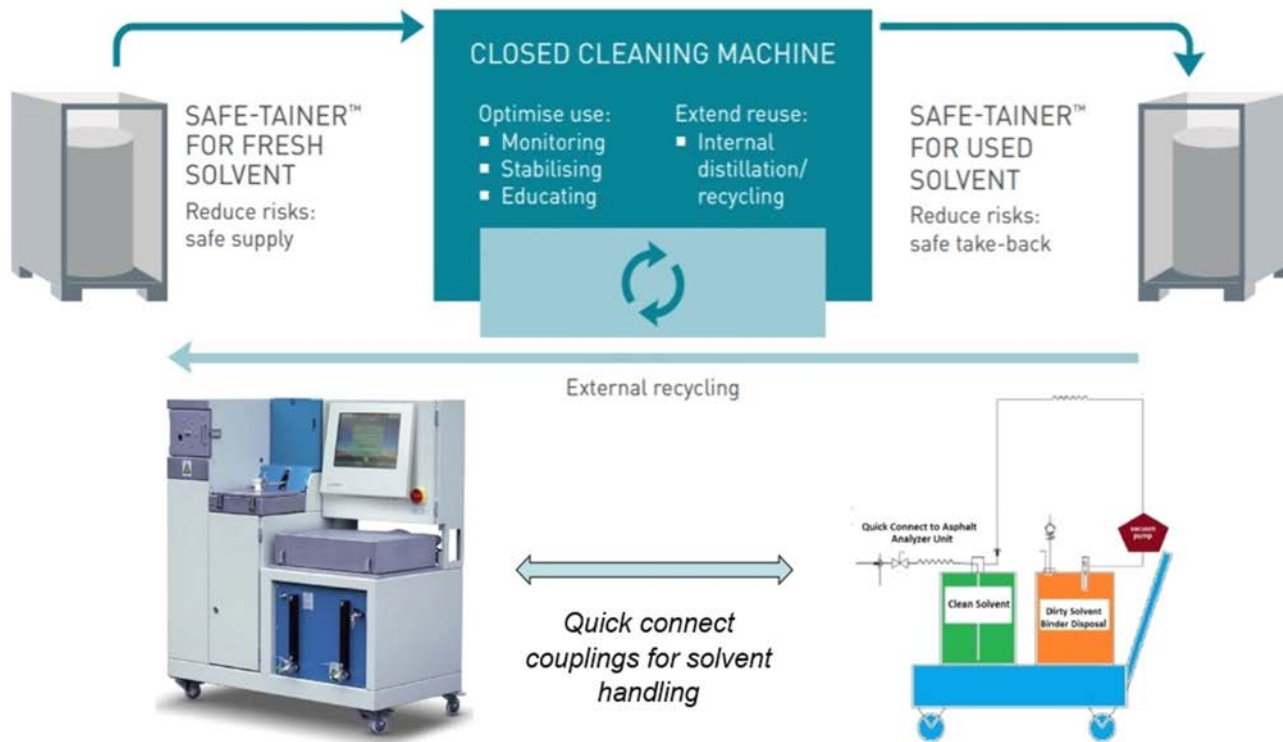


Thank You!

Questions?

ENGINEERING CONTROLS: EXAMPLES

SAFETAINER Compatible – Solvent Handling System



SAFE-CHEM
be responsible



infraTest
TESTING SYSTEMS



PPE LIMITATIONS



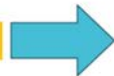
Respirators Must Fit Properly

- ❑ Respirators must fit properly to prevent solvent vapor leaks around the edges.
- ❑ Fit-testing must be done before first wearing a respirator.
- ❑ Beards are **not allowed** when wearing most respirators because they will leak.

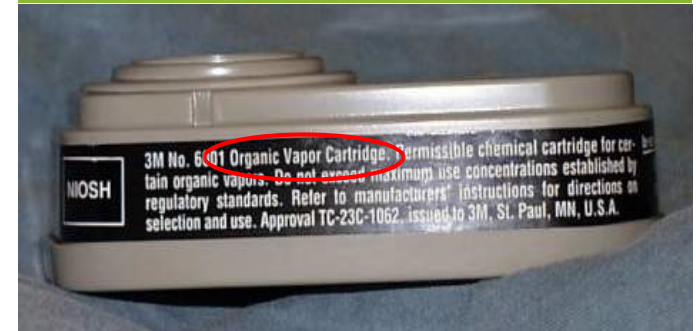


- ❑ Paper masks do not protect against solvents – the vapors go right through them.

These are only good for dust.



- ❑ “Organic vapor” cartridges are the only type that capture solvent vapors.
- ❑ Cartridges for solvents will absorb only so much solvent until breakthrough occurs.
- ❑ Cartridges are not suitable for some solvents since they are not trapped inside the cartridge. (includes methanol and **methylene chloride**)



Gloves for Solvent Skin Protection

PPE LIMITATIONS

- Only “chemical resistant” gloves will provide adequate protection for the hands.
- Leather or cloth gloves will simply soak up solvents and hold them against the skin.
- Latex gloves will be softened or dissolved by some solvents.

