



Pennsylvania's VCP interface with  
the RCRA/CERCLA/TSCA under the  
2004 MOA with EPA



MOA

- ✦ Provides process for satisfying federal obligations on RCRA/CERCLA/TSCA sites using the Pennsylvania Voluntary Clean Program with the exception of
  - Sites listed on the NPL
  - Sites under in RCRA currently undergoing cleanup under action through an enforcement order

## Overview of Pa Cleanup Standards

### ✦ Background

- Not health-based

### ✦ Statewide Health- Generic standards

### ✦ Site-specific

- Risk Assessment to determine if risks are acceptable
- Establish numeric standards
- Pathway elimination to reduce risk

## Relation to CERCLIS Scoring

### ✦ Considers Pathways

- Groundwater
- Surface water
- Soil
- Air

### ✦ Information Included

- Location, description, ecological screening
- Site type, sources and wastes present
- Substances
- Site assessment including specific data
- Response actions



## Current Work share with EPA

- ✦ 6 Month meetings with EPA on work share
- ✦ 83 sites listed for state lead on the Region III Active Universe of Sites
- ✦ 17 currently being address under Pa Hazardous Sites Cleanup Program (funded)
- ✦ Additional expected to be addressed under the Voluntary Program
  - Letters to Owners Inviting them to enter the voluntary process
  - Copies of notices, reports and approval letters to EPS



## VCP relation to Environmental Indicators (EI)

## Current and future use

- ✦ EI- current use considered
  
- ✦ PA VCP-
  - Current and currently planned use
  - Probable future groundwater use
  - Use of institutional controls and post remedial monitoring

## Defining "contaminated" area

- ✦ Environmental Indicators
  - Area contaminated above risk-based levels
- ✦ Pa Voluntary Program
  - PQL = "contaminated", however site characterization minimum requirement is to delineate to the "selected standard" (risk-based)

## Current Human Exposures Under Control

- ✦ Apply EI at the end of the VCP process

- ✦ Environmental Indicators Media

- » Groundwater
- » Air (outdoors and indoors)
- » Surface soil
- » Subsurface soil
- » Surface water
- » Sediment

## Groundwater under Statewide Health Standard

- ✦ Apply MCLs/HALs as existing

- ✦ Others apply risk levels to  $1 \times 10^{-5}$ , HI = 1.0

- Note- standard applied at property boundary

- ✦ Additional requirement for Fate and Transport Analysis to consider natural attenuation

- Standard will be maintained in the future
- Or Post remedial monitoring and planning to provide action if standard exceeded

## Groundwater under Site-specific Std

- ✦ Baseline risk or numeric standards of;
  - excess cancer risk  $\leq 1 \times 10^{-4}$
  - Hazard Index  $\leq 1.0$
- ✦ Incomplete pathway documentation
- ✦ Pathway elimination implemented

## Soil under the Statewide Health Std

- ✦  $< 2'$  risk levels to  $1 \times 10^{-5}$ , HI = 1.0
  - inhalation and ingestion protected
- ✦  $> 2$  to 15 '(subsurface)- inhalation protected
- ✦ 0'- bedrock protective of groundwater via leaching thorough soil column

## Air

### ✦ Per soil inhalation standards

- Outdoors, Statewide Health Std (SHS) inhalation protectiveness to  $1 \times 10^{-5}$  (site-specific (SSS) to  $1 \times 10^{-4}$ )
  - Particulates
  - Volatiles
- Indoors
  - Protectiveness to  $1 \times 10^{-5}$  (SHS) or  $1 \times 10^{-4}$  (SSS) <sup>5</sup>
  - Pathways from groundwater and/or soil to indoors
  - Screening process, sampling not always needed

## Surface water- eco and human health standards

- ✦ Screen based on modeled results to meet in-stream standards
- ✦ Overlay to existing requirements of ingestion/inhalation risk-based standards at property line
- ✦ Sediment
  - Greater than 1000 sq ft of contaminated sediment (> PQL) requires ecological assessment



## MOA- mutual program success

- ✦ Completion of VCP process – “No further federal interest” letter from EPA
  - RCRA can be supplemented with EI- Exposures Under Control
    - Letters to RCRA sites inviting them into the Voluntary Prg
    - EPA Region 3 coordinated involvement with PA on higher priority sites
  - CERCLA- summary reporting completions to EPA
  - TSCA- meet 761.61



## Pa- EPA Region 3 MOA

“One-Cleanup”- including EPA obligations and State obligations for those completing the Pa Voluntary Process