Proposed AMR VI Amendments and Air Toxics Health Risk Assessment



City of Philadelphia Dept. of Public Health Air Management Services

October 6, 2022

Current AMR VI

- List of 99 Toxic Air Contaminants
- Notification Requirement
- Recommended Air Quality Guidelines

Proposed AMR VI Amendments



• Increasing list of Toxic Air Contaminants from 99 to 217.

- Adding Risk Analysis to Permitting
 - Pre-construction Permits
 - Title V Operating Permits
- Adding Technical Guidelines.

Risk Analysis – Pre-construction Permit Applications

- Required if PTE for a TAC is more than the threshold listed in the Technical Guidelines.
- Cancer Risk:
 - <= 1 in a million negligible risk
 - > 1 in a million but < 100 in a million case-by-case evaluation
 - >= 100 in a million unacceptable risk
- Non-cancer Risk:
 - Hazard Quotient <= 1 negligible risk
 - Hazard Quotient > 1 Risk Mitigation Plan required

Risk Analysis – Title V Operating Permit Applications

• Facility-wide risk determination required for Title V OP applications.

- Cancer Risk:
 - <= 1 in a million negligible risk
 - > 10 in a million but < 100 in a million Risk Mitigation Plan required
 - >= 100 in a million unacceptable risk
- Non-cancer Risk:
 - Hazard Quotient <= 1 negligible risk
 - Hazard Quotient > 1 Risk Mitigation Plan required

Background Cancer Risk



- The cancer risk for the census tract where the facility is located using the most recent EPA Air ToxScreen data.
- For Title V Operating Permit Applications and Plan Approval Applications:
 - Total Cancer Risk = Title V Facility Risk/Project Cancer Risk + Background Cancer Risk

Risk Screening Workbook

- Calculates risk based on emissions, stack, and distance to property line.
- Plan to create source specific versions.

Questions?