CleanerAirOregon

Health Risk-Based Industrial Air Toxics Permitting Program General Framework

FACILITIES ENTER PROGRAM

APPLICABILITY

Program Element 1: Include existing sources in program or not?
Program Element 2: Regulating individual pieces of equipment or the whole facility
Program Element 3: Categorical exemptions

POLLUTANT SCOPE AND SETTING RISK BASED CONCENTRATIONS

What concentrations for each air toxic will be used in risk assessment and in setting the significant emission rates or de minimis rates?
Program Element 4: What Air Toxics Should Be Included in the Program?
Program Element 5: Method for Setting Health Risk-Based Concentrations
Program Element 6: Default Toxicity Values
Program Element 7: Risk Based Concentration Averaging Times

CUMULATIVE RISKS AND BACKGROUND*

Include cumulative risk? If so, there are several program elements where it could be addressed.
Program Element 8: Cumulative Risk from Multiple Air Toxics from a Single Facility
Program Element 9: Cumulative Risk from Multiple Sources within an Area
Program Element 10: Use of Background/Ambient Concentrations in the Assessment of Risk
Program Element 11: Cross-media Exposure Pathways
Program Element 12: Past Risk

SETTING AND ADMINISTERING ALLOWABLE RISK LEVELS*

What risk levels will be used in calculating risk based concentrations, de minimis, significant emission rates, and in risk assessment?
Program Element 13: Setting the Initial Screening Levels for Allowable Cancer and Non-cancer Risk
Program Element 14: Allowable Risks Levels
Program Element 15: Different Risk Levels for Existing and New Sources

Include cumulative risk? Background? Cross-media pathways?

Risk based concentrations are set using allowable risk levels

Decisions needed to set up program structure outlined in screening and risk assessment below

SCREENING AND RISK ASSESSMENT*

Initial Screening Level Purpose: screen out sources with low impact emissions (de minimis or significant emission rate) **Modeling Purpose:** Determine if facility will meet allowable risk levels

DE MINIMIS EMISSION RATE (LBS/YEAR)

Program Element 16: Setting and Using De minimis Emission Rates

What happens if facility emits at less than de minimis emission rate?
No further requirements?
Register & Report?

Emissions excluded from other source risk assessments?

How to calculate the de minimis emission rate

Include cumulative risk? Background?
Cross-media pathways?

Use risk based concentrations

Emissions greater than de minimis

SIGNIFICANT EMISSION RATE (LBS/YEAR)

Program Element 17: Setting and Using Significant Emission Rates

What happens if facility emits at more than de minimis emission rate?
Require permit
Install TBACT?
Reduce emissions?

Emissions included from other source risk assessments?

How to calculate the significant emission rate

Include cumulative risk? Background?
Cross-media pathways?

Use risk based concentrations

Emissions greater than significant emission rate

INITIAL MODELING

Program Element 18: Risk Assessment and Modeling once Initial screening level is triggered (AERSCREEN)

What happens if facility emits at more than the significant emission rate?
Install TBACT?
Reduce emissions?

Emissions included from other source risk assessments?
Other?

Initial modeling: what do facilities have to do?

Include cumulative risk? Background?
Cross-media pathways?

Use risk based concentrations

If initial modeling shows impacts higher than the allowable risk level

REFINED MODELING

Program Element 19: Risk Assessment and Modeling once Higher Level of Analysis is Triggered (AERMOD)

What happens if initial modeling shows that facility will not meet allowable risk levels? Install TBACT?
Reduce emissions?

Emissions included from other source risk assessments? Other?

What happens if refined modeling shows that facility will not meet allowable risk levels? Install TBACT?
Reduce emissions?

Risk Assessment with Risk Reduction Plan
Other?

Advanced modeling: what do facilities have to do?

Include cumulative risk? Background?
Cross-media pathways?

Use risk based concentrations

LESS ← EMISSIONS FROM FACILITY → MORE

*Include environmental justice considerations

IMPLEMENTATION*

Program Element 20: Phasing
Program Element 21: Looking beyond current air permitting program for other sources of air toxics
Program Element 22: Community Engagement
Program Element 23: Compliance
Program Element 24: Capacity - regulatory costs and fee structure
Program Element 25: Evaluation

Permit decisions use allowable risk levels

Oregon Health Authority

DEQ
State of Oregon Department of Environmental Quality