

Summary of Six Air Toxics Programs

Issue Paper		State and Local Air Toxics Programs					
Key Element		Louisville	New Jersey	New York	Rhode Island	South Coast	Washington
Applicability	New/Mod/Existing Sources	new/mod/existing	new/mod recently existing	new/mod/existing	new/mod/existing	new/mod/existing	new/mod
	Individual Equipment	new/mod/existing	new/mod	new/mod	new/mod	new/mod	new/mod
	Whole Facility	NA	existing sources	NA	existing sources	existing sources	new/mod
	Categorical Exclusions	NA	<ul style="list-style-type: none"> list of insignificant sources 	<ul style="list-style-type: none"> incineration combustion 	<ul style="list-style-type: none"> gas stations fuel burning equipment perc dry cleaners organic solvent cleaners 	Rule 219	<ul style="list-style-type: none"> NSR categorical exemptions combustion < thresholds Emission thresholds
Pollutant Scope and Setting Concentration Levels	Regulated Pollutants	18 Category 1 TAC 19 Category 2 TAC 17 Category 3 TAC 136 Category 4 TAC	187 HAPs	1,091 air toxics 62 HTAC	258 air toxics	23 high risk pollutants 150-200 permit pollutants 450 Hot Spots chemicals 187 HAPs	398 air toxics
	Ability to focus on and prioritize problem pollutants	yes	no	yes	yes	yes	yes
	Flexibility to address new pollutants of concern	yes	no	yes	yes	yes	no
	Links pollutants to program structure or needs	yes	no	yes	yes	yes	yes
	Concentration averaging time	<ul style="list-style-type: none"> annual 24-hour 8-hour 1-hour 	<ul style="list-style-type: none"> annual 24-hour 8-hour 1-hour 	<ul style="list-style-type: none"> annual 1-hour 	<ul style="list-style-type: none"> annual 24-hour 1-hour 	<ul style="list-style-type: none"> annual 8-hour (chronic occupational exposures) 1-hour 	<ul style="list-style-type: none"> annual 24-hour 1-hour
	How are the pollutant risk-based concentrations calculated	EPA, NTP, IARC, ATSDR	EPA IRIS, ATSDR, CalEPA, NJDEP	NYDEC, NYDH, EPA IRIS	ATSDR, CalEPA	CalEPA OEHHA	EPA IRIS, CalEPA, ATSDR
	Multiple exposure pathways for human health	yes	no	yes	yes	yes	no
Screening and Risk Assessment	Modeling Receptors	Fenceline-ambient air	Fenceline-ambient air	Residential-sensitive	Residential-sensitive	Residential-sensitive	Fenceline-ambient air
	Significance Thresholds	No explicit rates	Significant emission rates	Significant emission rates	Significant emission rates	Significant emission rates	Significant emission rates
	Initial Screening Steps	Factors and lookup tables to convert emissions to concentrations	Excel spreadsheet to estimate concentrations and risk	Sources ranked by toxicity of emission, location, and cumulative impact from nearby sources	modeling	Multiple lookup tables of varying refinement and complexity	modeling
	Refined Steps – AERSCREEN/AERMOD	yes	yes	yes	yes	yes, HARP framework	Yes

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Setting and Administering Acceptable Risk Levels	Acceptable Risk initial screen	1 in 1 million cancer risk & a hazard quotient of 1	1 in 1 million cancer risk and a hazard quotient of 1	1 in 1 million cancer risk & a hazard quotient of 1	1 in 1 million cancer risk and a hazard quotient of 1	1 in 1 million additional cancer risk.	New/Modified: 1 in 1 million cancer risk and a hazard quotient of 1
	If risk higher than screening levels	Requires T-BACT if the cumulative risk levels are not met	Case-by-case review required for risk between 1 in 1 million and 100 in 1 million or hazardous quotient ≥ 1	If T-BACT used: 10 in 1 million or a hazard quotient of 2	Up to 10 in 1 million is acceptable	New/Modified: 10 in 1 million cumulative cancer risk from single equipment with T-BACT	NA
	Risk from multiple pollutants from a single source	Cumulative risk: for multiple carcinogenic contaminants: <ul style="list-style-type: none"> For new source is 3.8 in 1 million. For existing source is 7.5 in 1 million 	Considers only risks and hazards related to individual chemicals.	Risk for individual chemicals assessed in screening step using Annual Guideline Concentrations; requires calculation of multi-chemical cumulative risk. Summing of risks required for pollutants emitted from process emission points	Cumulative effects of emissions of two or more air toxics that affect same organ system (i.e., indicates non-cancer effects) may be unacceptable even if Ambient Air Levels for the individual substances are not exceeded.	New/Modified: 1 in 1 million cumulative cancer risk from single equipment Existing: 25 in 1 million cumulative “action risk levels” for entire facility and organ-specific hazard index of 3. Existing: “Significant risk levels” are 100 in 1 million cumulative risk for entire facility or an organ-specific hazard index of 5.	Cumulative risk: 10 in 1 million
	Risk from nearby sources (multiple facilities)	not included	not included	Included	not included	included	included
	Risk from ambient or background	not included	not included	background	not included	background (for criteria pollutants)	background
	Risk to environment	included	not included	Included	not included	included	not included
	Notes	No guidance on cumulative risk from multiple contaminants for non-cancer risk. No individual contaminant can have a hazard quotient > 1	If Incremental Cancer Risk is greater than or equal to 100 in one million, the permit will not be approved.	If screening after T-BACT fails, 10 in 1 million cumulative cancer risk or hazard index of 2 is acceptable	Total cancer risk cannot exceed 100 in one million for multiple sources	Same organ system cumulative effects assessed	Rule does not specify acceptable non-cancer hazard quotient or index
Implementation	Prioritization	new/mod/renewal	new/mod/renewal	new/mod/renewal	industry type	highest risk	new/mod
	Fee Structure	Title V + STAR fee	Title V + application fees	Title V fees	Title V + application fees	NSR Fees: fees for different types of equipment + special processing fees for health risk assessments Existing source fees: emissions fees, source category fees	\$10,000 for 109 hours + \$95/hour
	Program Effectiveness	Toxics Release Inventory	NATA + monitoring	emissions inventory, NATA, monitoring	emissions inventory, NATA	monitoring, emissions inventory, modeling	emissions inventory