

NR 445 Air Toxics: Determining Compliance With WI Hazardous Air Pollutant Rule

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Today's Presentation

- Help you to understand....
 - What's affected
 - What options are available
 - What needs to be done & by when
- Provide opportunity for questions

What's Affected

- General process type emission sources
 - capable of emitting a newly listed HAP
 - capable of emitting a previously listed HAP greater than new threshold
- Specific process emission sources
 - internal combustion engines
 - coal handling & storage

New Tables

Subchapter III of NR 445

- **Table A** - standards & requirements for all sources
- **Table B** - standards & requirements for the manufacture or treatment of pesticides, rodenticides, insecticides, etc.
- **Table C** - standards & requirements for the manufacture or treatment of pharmaceuticals

New Tables

Subchapter III of NR 445

- **Table D** - SICs for sources of incidental emissions of HAPs
- **Table E** - substances of concern for sources of incidental emissions of HAPs

Standards (Tables A, B & C)

- Ambient Air Standards (AACs)
 - hourly concentrations
 - annual concentrations
- Control Requirements
 - BACT & LAER

Table A

Emission Thresholds, Standards and Control Requirements for All Sources of Hazardous Air Contaminants

Hazardous Air Contaminant	CAS Number	Thresholds for Emission Points ¹ (expressed as lbs/hr or lbs/yr)				Ambient Air Standard (per time period in column (h) expressed as micrograms per cubic meter)	Time Period for Standard and Threshold	Control Requirement
		Emissions from Stacks <25 ft	Emissions from Stacks 25 to <40 ft	Emissions from Stacks 40 to <75 ft	Emissions from Stacks ≥75 ft			
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Acetaldehyde	75-07-0	3.36	10.7	20.6	55.3	4,504	1 Hr	N/A
		808	3,318	7,900	27,845	N/A	Annual	BACT
Acetic acid	64-19-7	1.32	5.12	10.3	39.8	589	24 Hr Avg	N/A

Ambient Air Standard (per time period in column (h) expressed as micrograms per cubic meter)	Time Period for Standard and Threshold
(g)	(h)
4,504	1 Hr
N/A	Annual
589	24 Hr Avg

Time Period for Standard and Threshold	Control Requirement
(h)	(i)
1 Hr	N/A
Annual	BACT
24 Hr Avg	N/A

Methods (Tables A, B & C)

- NR 445.08(2), (3) & (5)
- New methods include:
 - capping emissions below new health based threshold levels
 - capping emissions below a level that would exceed an acceptable health based concentrations at property line

Important things to keep in mind when using the tables!

Table A
Emission Thresholds, Standards and Control Requirements for All Sources of Hazardous Air Contaminants

Hazardous Air Contaminant	CAS Number	Thresholds for Emission Points ¹ (expressed as lbs/hr or lbs/yr)				Ambient Air Standard (per time period in column (h) expressed as micrograms per cubic meter)	Time Period for Standard and Threshold	Control Requirement
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Table thresholds can only be used if emissions are from unobstructed vertical stack.

Calculate emissions using non-exempt, potential to emit or maximum theoretical emissions in absence of a permit.

Use the appropriate time period!

Methods (Tables A, B & C)

- New methods (cont.):
 - risk based showing by pollutant
 - cumulative risk based showing by facility
 - multi-pathway risk based modeling for incinerators

Methods (Tables A, B & C)

- Risk based showing by pollutant
 - 1-in-1,000,000 life time risk at property line
 - US EPA or CARB unit risk factors
 - screen or industrial complex dispersion model as appropriate
 - equation in rule
 - consider any operating scenario facility is willing to commit to using

Methods (Tables A, B & C)

- Cumulative risk based showing by facility
 - 1-in-100,000 life time risk at property line
 - considers maximum cumulative exposure
 - includes exempt emissions
 - requires ability to cap emissions of all carcinogens without URF to below table threshold

Methods (Tables A, B & C)

- Multi-pathway risk based showing for incinerators
 - only used for incineration of medical or municipal solid waste
- Contact Bureau of Air Management for additional details prior to using this approach

Compliance Schedule

- Capping emissions, meeting AAC or health based showing:
 - Prior to July 1, 2007
- Control requirements (BACT/LAER)
 - Information prior to Jan. 1, 2006
 - Final compliance established by permit, no earlier than July 1, 2007

What (Does Not) Need to Be Done

- **IMPORTANT!**

A source currently operating under a BACT or LAER approval DOES NOT need to “re-demonstrate” compliance for the HAP(s) subject to the approval

What's Affected (Specific Process)

- **Stationary CI Engines**
 - **Applies to:** 100 HP and above
 - **Fuel requirements:** effective in 2006, tied to on-road federal requirements
 - **Control requirements:** effective in 2007, applies to engine burning 10,000 gpy or more

What's Affected (Specific Process)

- **Stationary CI Engines**

- **Control requirements:**

- based on age & size of engine
 - compliance demonstrated by using control device certified by either US EPA or California Air Resource's Board

- **Incentives:** to use newer, cleaner engines

What's Affected (Specific Process)

- **Coal Handling & Storage**
 - **Applies to:** facilities processing 1000 TPY or more
 - **By July , 2006**
 - **Fugitive emissions:** ability to control emissions in a timely manner
 - **Stack vented emissions:** exhausting through fabric filter-limit visible emissions or meet standard

What Needs To Be Done

- Summary
 - Identify & Quantify
 - Compare Against Thresholds
 - If Over, Determine Best Approach for Achieving Compliance
 - Provide Documentation As Needed
 - Complete Actions By July 2007



Resources

- Regional & Central Office DNR Staff
 - <http://www.dnr.state.wi.us/org/aw/air/staff/staff.htm>
- DNR Air Toxic Program Website
 - <http://www.dnr.state.wi.us/org/aw/air/health/airtoxics>
- Dept. of Commerce Small Business Clean Air Assistance Program
 - <http://www.commerce.state.wi.us/MT/MT-CA-sbcaap.html>

Questions?