EPA's Hazardous Air Pollutant Program in Contrast to NR 445 Part II - A Closer Look

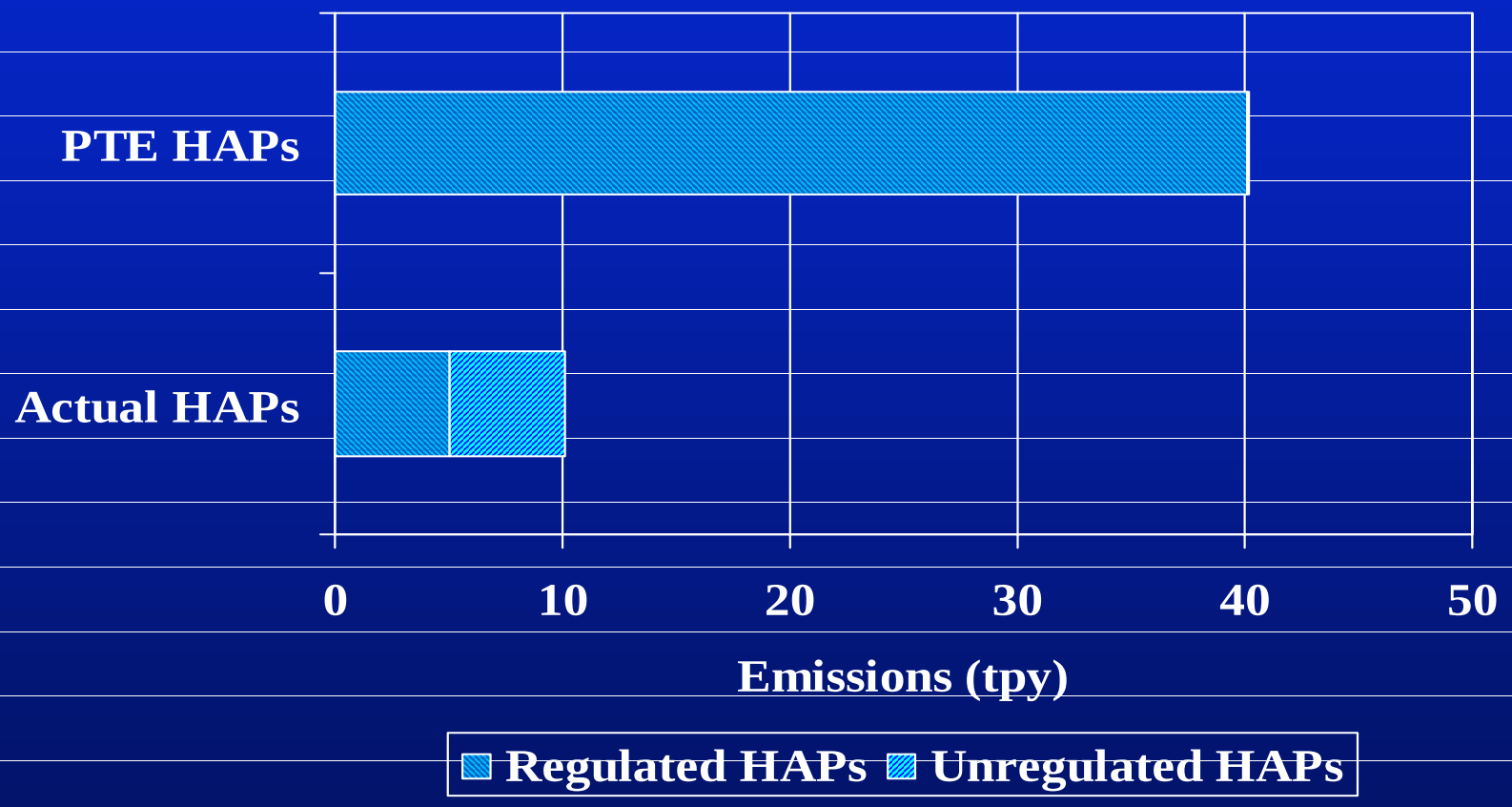
NR 445 Technical Advisory Group
4/27/2000

Roger Fritz, WDNR
608/266-1201, fritzr@dnr.state.wi.us

Let's look at a facility

Units	MACT	NR 445
Boilers	Not Applicable	Exemption
Distillation Columns	Applies only to 1/2 business	Applies to all
Storage tanks	Applies only to 1/2 business	All
Loading	Not Applicable	All

MACT Applicability



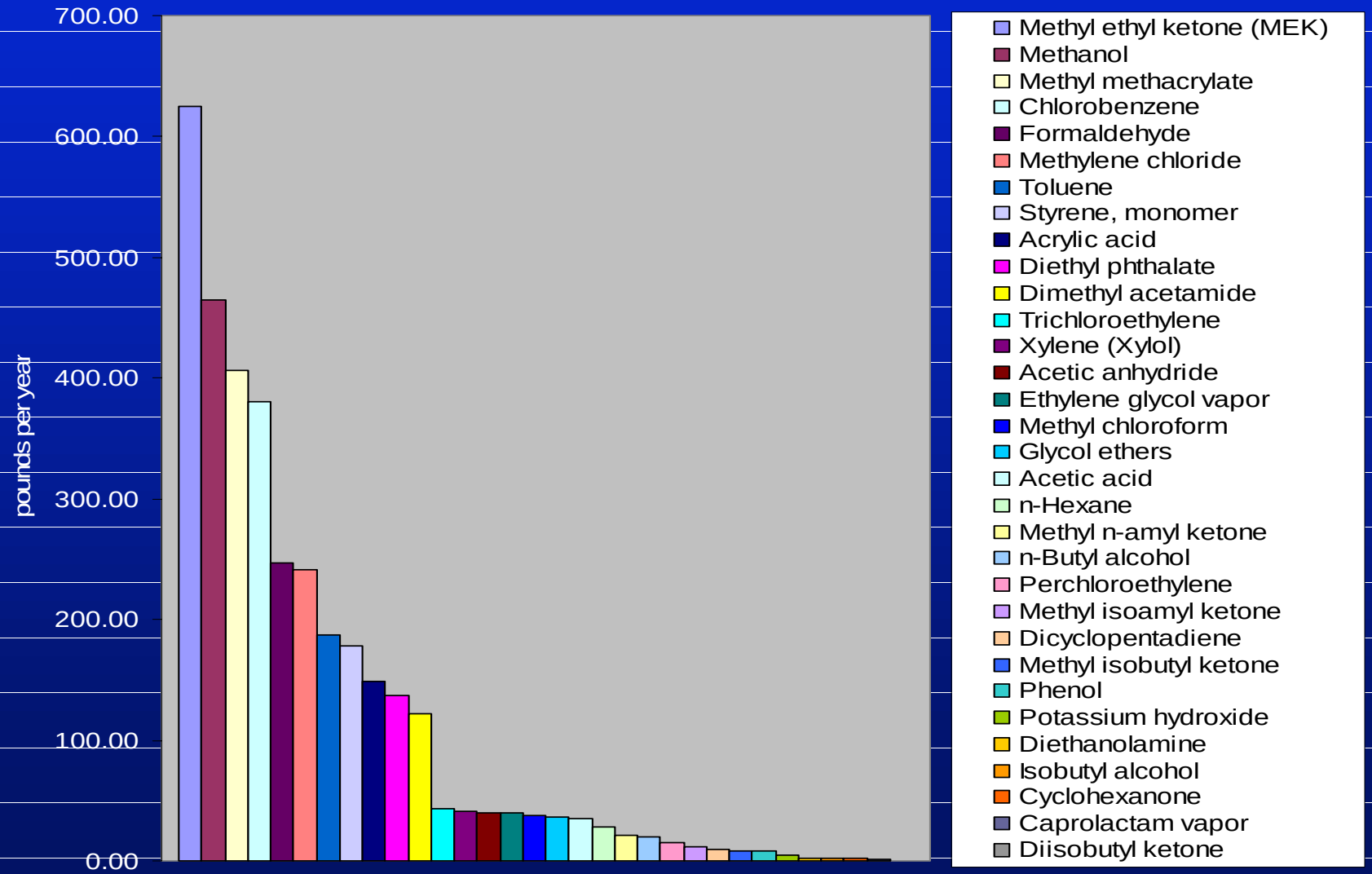
Actual Emissions 1998

FACILITY HAP EMISSIONS	NR445	112(b)
Acetic acid	X	
Acetic anhydride	X	
Acrylic acid	X	X
n-Butyl alcohol	X	
Caprolactam vapor	X	X
Chlorobenzene	X	X
Cyclohexanone	X	
Dicyclopentadiene	X	
Diethanolamine	X	X
Diethyl phthalate	X	
Diisobutyl ketone	X	
Dimethyl acetamide	X	
Ethylene glycol vapor	X	X
Formaldehyde	X	X
Glycol ethers		X
n-Hexane	X	X

FACILITY HAP EMISSIONS	NR445	112(b)
Isobutyl alcohol	X	
Methanol		X
Methyl n-amyl ketone	X	
Methylene chloride	X	X
Methyl ethyl ketone (MEK)		X
Methyl isoamyl ketone	X	
Methyl isobutyl ketone	X	X
Methyl methacrylate	X	X
Perchloroethylene	X	X
Phenol	X	X
Potassium hydroxide	X	
Styrene, monomer	X	X
Toluene	X	X
Methyl chloroform		X
Trichloroethylene	X	X
Xylene (Xylol)	X	X

HAP Emitted 1998	Actual lb/yr	NR445	TABLE	112(b)	Tab 1-4	Units	Tab 5	Watchlist
Acetic acid	35.63	X	1		2.0832	lb/hr		
Acetic anhydride	40.33	X	4		1.0128	lb/hr		
Acrylic acid	149.11	X	1	X	2.4984	lb/hr	63	W
n-Butyl alcohol	19.41	X	1		7.596	lb/hr		
Caprolactam vapor	1.57	X	4	X	1.6656	lb/hr		
Chlorobenzene	380.67	X	1	X	29.148	lb/hr		
Cyclohexanone	1.89	X	1		8.328	lb/hr		
Dicyclopentadiene	9.35	X	4		2.4984	lb/hr		
Diethanolamine	2.51	X	1	X	1.2504	lb/hr		
Diethyl phthalate	136.59	X	1		0.4176	lb/hr		
Diisobutyl ketone	0.08	X	4		7.245	lb/hr		
Dimethyl acetamide	121.4	X	4		2.916	lb/hr		
Ethylene glycol vapor	40.05	X	1	X	6.3312	lb/hr		
Formaldehyde	247.11	X	3B	X	250	lb/yr		
Glycol ethers	35.98			X				
n-Hexane	27.61	X	1&5	X	14.9904	lb/hr	42078	
Isobutyl alcohol	2.26	X	1		12.492	lb/hr		
Methanol	464.16			X				
Methyl n-amyl ketone	21.45	X	4		19.572	lb/hr		
Methylene chloride	241.59	X	1	X	29.148	lb/hr		
Methyl ethyl ketone (MEK)	624.77			X			63117	W
Methyl isoamyl ketone	12.24	X	4		19.9872	lb/hr		
Methyl isobutyl ketone	7.79	X	1	X	17.0736	lb/hr		
Methyl methacrylate	405.62	X	1	X	34.1448	lb/hr		
Perchloroethylene	14.93	X	1	X	27.9	lb/hr		
Phenol	7.77	X	1	X	1.5816	lb/hr		
Potassium hydroxide	4.71	X	4		0.1008	lb/hr		
Styrene, monomer	178.4	X	1&5	X	17.9064	lb/hr	210391	
Toluene	186.96	X	1&5	X	31.2312	lb/hr	84157	
Methyl chloroform	37.1			X				
Trichloroethylene	43.62	X	1	X	22.4856	lb/hr		
Xylene (Xylol)	40.66	X	1	X	36.228	lb/hr		

1998 Emissions



MACT & NR 445

- Requires high level of control on certain units
- Addresses impact of total mass of HAPs

- Requires control to the extent needed to meet standards
- Addresses acute impact of each HAP