Fees
“Tuning the tax to the toxicity”

Tom Boucher
Dept of Ecology

Sept 10, 2008

What do we need to know? --Ingredients

- Will “Paint” hurt you?
- Need to know its ingredients.
- Standard way to refer to chemical ingredients.
- CAS = Chemical Abstracts Service Registry Number
- Example: Ethanol CAS # 64-17-5

What do we need to know? --Toxicity

- How harmful is any particular CAS?
- We don’t know about all of them.
- The ones we do know about have data published in different lists of toxicity.
  - Some are all or nothing: TRI It’s yes or no.
  - Some are numerical: TRACI has a toxicity score.
- Lists aren’t all being revised to reflect new knowledge.

What do we need to know? --How much is used?

- “Any” is too much sometimes (mercury)
- More is usually worse, but where do you draw the line to regulate it?
- That “threshold” depends on the chemical.
- Example: to report on the “Toxic Release Inventory” (EPA) you need to use at least 10,000 lbs of one of 581 toxic chemicals specified on the law’s list.

DEPARTMENT OF ECOLOGY
State of Washington

Examples of reports that exist already with CAS's and data on use.

	Number of WA reporters	Does it have CAS info?	What's the threshold?	Does it have data on how much was used?
"Tier 2" (EPA/ WA)	Approx. 4000	Some (but it more often lists mixes like "paint")	•10,000 lbs for most substances •As low as 10 lbs	No (but does have the average amount stored)
TRI (EPA)	Approx. 600	Yes	•Grams of dioxin •10 pounds of mercury •100 pounds of lead •10,000 of most chems	No (but does have codes for quantity ranges showing how much was stored)
P2 (WA)	Approx. 600	Yes	•95% of the pounds of products that contain toxics on the TRI list.	Yes

Tradeoffs for tuning the tax to the toxicity

- Reporting programs: existing vs. new ones
- Toxicity lists: Yes/no vs. a numerical score
- Toxicity lists: Regulatory vs. research

How well does the tax need to be "tuned to the toxicity" for a reporting and fees program? **September 8, 2008**

How well is it tuned?	What would a fee be based on?	What would need to be known about the amount of chemical on site?	How much would have to be known about the toxicity of the chemical?	What could WA use to do this?	Has anybody else done this?	Pros and Cons
Increasing ↓	1) **Number of chemicals used over 10,000 lbs** times **a flat amount** Example: A user who had ten chemicals over 10,000 lbs would be charged half of what one with twenty chemicals would be.	• Only that it's greater than a threshold.	• It's on a yes/no list	• Existing TRI reports.	• Mass TURI before 2008	• Uses existing reports but they have very high thresholds (usually 10,000 lbs) • A reporter who used 1 million lbs would be charged the same as one who used 10,000 lbs.
	2) **Number of chemicals used over 10,000 lbs** times **a multiplier based on how much was stored** times **a flat amount** Example: A user who stored less than 1000 lbs would be charged less than one who stored 10,000 lbs.	• Only how much is stored (as a stand-in for amount of use)	• It's on a yes/no list	• Existing TRI and Tier 2 reports.	• Unk.	• Storage isn't always a good stand-in for the amount of use. • Tier 2 reporters already pay a tax to Dept of Labor & Industries.
	3) **Number of chemicals used over 10,000 lbs** times **a multiplier based on how toxic the chemical is** times **a flat amount** Example: a user of cadmium (very toxic) might pay ten times what a user of copper (not very toxic).	• Only that it's greater than a threshold.	• It's on a yes/no list	• WA could use existing TRI reports plus a WA list to be developed which prioritizes chemicals of concern with a higher fee.	• Mass TURI now	Addresses chemicals of concern for WA State. Examples: • WA PBT's (Persistent Bioaccumulative Toxins) • Children's Safe Product Act chemicals • Chemicals of mutual concern with other jurisdictions (Mass TURI: cadmium, cadmium compounds, trichloroethylene) • Some substances which are precursors to EHW (Extremely Hazardous Waste).

Increasing	4) **Amount used of a chemical in lbs** times **a multiplier based on its toxicity** times **a flat amount** (summed for all hazardous chemicals on site) Example: • A user of 500 lbs of Paint A with toxic ingredients might pay half of what a 1000 lb user would. • A user of Methyl Ethyl Ketone (MEK) would pay less than a user of toluene because MEK is less toxic (to inhale) than toluene.	• The exact amount of use is known	• Numerical toxicity factor	• Existing P2 Plan data plus TRACI or equivalent.	• No	Uses existing P2 report but TRACI overstates some types of toxicity (esp. metals).
	5) **Amount used of a chemical in lbs** times **a multiplier based on its toxicity** times **a factor reflecting exposure** times **a flat amount** (summed for all hazardous chemicals on site) Example: A user of copper for motor windings (doesn't get into environment) pays less than a user of copper as marine bottom paint (does get into the environment).	• The exact amount of use is known and how it's being used	• Numerical toxicity factor	• A new reporting form • A "life-cycle analysis" tool.	• No	Needs more research and study to develop. Would allow most accurate technical assistance.