

## Finding Hidden Environmental Economic Benefits: Hide and Seek

Sometimes justifying the cost of pollution prevention projects is like playing hide and seek. The benefits and savings are hidden in your process, and you need to find them.

Companies typically evaluate projects based on costs like: equipment, installation, direct labor, training and start-up, compared to the projects expected revenue. But, pollution prevention projects can offer your company savings beyond these cost factors. Reduced regulatory compliance burdens and lower insurance premiums are example of benefits than can be easily overlooked when analyzing a pollution prevention strategy.

When justifying your investment in a project, start by adding up the usual costs and savings. Then incorporate benefits that have been overlooked in the past. The table below highlights some of the compliance and oversight costs that are often passed over. Using this format, compare individual costs side-by-side to determine your savings.

Table 1. Sample Costs Overlooked When Estimating Pollution Prevention Projects

Compliance Costs			Oversight Costs		
	<i>Current</i>	<i>Alternative</i>		<i>Current</i>	<i>Alternative</i>
<b>Air &amp; Water Emissions Control</b>			<b>Engineering</b>		
Discharge fees	_____	_____	Hazard analysis	_____	_____
Equipment capital	_____	_____	Testing	_____	_____
Permit fees & preparation	_____	_____			
Wastewater treatment operating cost	_____	_____	<b>Finance</b>		
			Credit costs	_____	_____
			Tied-up capital	_____	_____
<b>Process Area</b>			<b>Management</b>		
Emission control equipment	_____	_____	Legal fees	_____	_____
Reporting & record keeping	_____	_____	Information systems	_____	_____
Safety equipment	_____	_____	Insurance	_____	_____
<b>Raw Materials Storage</b>			<b>Production</b>		
Safety training	_____	_____	Employee training	_____	_____
Storage facilities	_____	_____	Rework	_____	_____
<b>Solid &amp; Hazardous Waste</b>			<b>Purchasing</b>		
Containers	_____	_____	Inventory control	_____	_____
Disposal costs & fees	_____	_____	Product/vendor research	_____	_____
Sampling & analyzing	_____	_____	Regulatory impact analysis	_____	_____

For assistance analyzing the cost of your pollution prevention strategies contact WMRC Engineer, Ken Barnes at (217) 244-9940. And, for an extensive list of costs to consider and additional cost analysis methods, review WMRC Fact Sheet # , Cost Analysis for Pollution Prevention, or view it on-line at [www.wmrc.uiuc.edu](http://www.wmrc.uiuc.edu).

## True Cost of Hazardous Waste

Disposal is only a small component of the total cost of using hazardous materials. A big incentive to reduce hazardous material use at your company can be knowing its true cost. The table below lists likely costs incurred from one 55 gallon drum of hazardous paint waste, from purchase to disposal, for a large quantity generator (LQG) that ships 2,800 gallons per year of solvent-based paint waste containing xylene and toluene for fuel blending.

Item	Cost
Raw Materials: 15% paint @ \$25 per gallon 85% cleaning solvent @ \$2 per gallon	\$300
Disposal by fuel blending	120
Material handling: \$20 per hour	40
Shipping documents/manifests: \$25 per hour	13
U.S. Department of Transportation Hazardous Materials Registration (\$300 annual fee)	6
Record keeping and annual reporting requirements: \$25 per hour	5
IL EPA Hazardous Waste Storage Permit (\$250 annual fee for on-site storage > 90 days)	5
<b>Total cost of one drum of hazardous paint waste</b>	<b>\$489</b>

Strategies to avoid these costs include improving process efficiency and changing processes to eliminate the need for hazardous materials. For help reducing the cost of hazardous materials at your facility contact WMRC which has staff in each of its regional offices that can provide free assistance in pollution prevention. You can contact these staff at your nearest office:

Champaign:	(217) 333-8940	Peoria:	(309) 671-3196
Oak Brook:	(630) 472-5016	Brighton:	(618) 466-3806