

Photo Processing Pollution Prevention Opportunities Checklist

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The keys to pollution prevention in photoprocessing are to minimize washwater use, extend bath life, recover silver, and recycle bleach fixer solution.

Y/N	Opportunities	Comments
	I. Good Operating Practice	
	Segregate waste streams	Spent fix baths should be segregated from rinsewaters and developer solutions because silver recovery is more efficient on the more concentrated spent fix waste stream.
	Control inventory	Do not allow material to exceed shelf life and then have to be discarded as waste.
	Use materials on a first-in, first-out basis.	Do not get rid of expired products by discharging to wastewater treatment system.
	Adjust replenishment	Adjust chemical replenishment rates and wash water flow rates on photoprocessor to optimize bath life and reduce wastewater quantity.
	Keep lids on solutions	In storage, keep lids on bulk solutions to prevent oxidation and contamination of these solutions.
	II. Material Substitution	
	Change to silverless film	

III. Process Modification		
	Add ammonium thiosulfate	
	Purchase new machines	
	Add acetic acid	
IV. Material Recovery		
	Recover fix bath silver	
	Install electrowin	
	Silver does not end up in rinse waters or spent fix baths when this type of film is used. Examples include vesicular, diazo, and electrostatic films.	Addition of this chemical to silver-contaminated bath extends the useful life of the bath
	Purchase new developing machines that use less rinsewater (e.g., countercurrent rinsing) and/or have squeegees or air blades	To reduce drag-out from chemical baths to rinse waters.
	Acetic acid added to the fix bath keeps the Ph low	To maximize soluble complexes, therefore, extend bath life.
	Install electrowin unit on fix bath of photoprocessor.	Extends bath life.
	Install electrowin unit on first rinse and developer waste streams	To recover silver from solution and reduce toxicity of wastewater.
Metal replacement canister		
	Install canister on rinsewaters and on effluent of wastewater electrowin	To recover silver from solution and reduce toxicity of wastewater.
	Install rinse water recycling.	Reduces wastewater.

(WP,Photo)

Last Updated: January 8, 1996

Contact Pinellas County's Pollution Prevention and Resource Recovery (P2R2) Program at 464-4761 for Waste Reduction Assistance