

Pollution Prevention Checklist for Metal Finishing and Electroplating Shops

Answering the following questions will help identify pollution prevention opportunities. Any “no” answers indicate possibilities to investigate further.

General:

Yes No

<input type="checkbox"/>	<input type="checkbox"/>	Does facility purchase materials only as needed and use a “first in, first out” policy?
<input type="checkbox"/>	<input type="checkbox"/>	Does facility have written procedures for bath make-up and additions, limit chemical handling to trained personnel, and keep logs of all tank additions?
<input type="checkbox"/>	<input type="checkbox"/>	Does facility use de-ionized water ? (i.e. rinsing? or bath make-up)?
<input type="checkbox"/>	<input type="checkbox"/>	Does facility have overflow alarms on all process tanks to prevent overflow when adding make-up water?
<input type="checkbox"/>	<input type="checkbox"/>	Does facility segregate waste streams which generate a RCRA-listed hazardous sludge from wastewater treatment, from those which do not? Does facility segregate contact and non-contact (i.e., cooling) wastewater?
<input type="checkbox"/>	<input type="checkbox"/>	Does facility maintain physical integrity of all tanks by conducting periodic inspections and making necessary repairs?

Drag-out reduction, rinsing, and water use:

Yes No

<input type="checkbox"/>	<input type="checkbox"/>	Has facility optimized drainage time and the parts withdrawal rate to reduce drag out?
<input type="checkbox"/>	<input type="checkbox"/>	Does facility rack parts to minimize drag-out? (i.e. minimize “cup” shapes and re-design racks/barrels as necessary)
<input type="checkbox"/>	<input type="checkbox"/>	Does facility use drain boards between tanks to return drag-out to the process tank?
<input type="checkbox"/>	<input type="checkbox"/>	Does facility use air knives or fog rinses or sprays over process tanks to remove drag-out as parts exit the process bath?
<input type="checkbox"/>	<input type="checkbox"/>	Has facility optimized the drag-out reduction in these ways: lower bath concentrations; higher bath temperatures; and use of surfactants or wetting agents to lower adhesion of bath liquids to parts?
<input type="checkbox"/>	<input type="checkbox"/>	Does facility use static/drag-out rinse tanks for first rinse after a process bath?
<input type="checkbox"/>	<input type="checkbox"/>	Does facility agitate rinses (or use counter-current rinsing)?
<input type="checkbox"/>	<input type="checkbox"/>	Does facility restrict/control rinse water flow rates ? Is rinse water flow turned off when not in use?

Bath/Chemical solution maintenance:

Yes No

<input type="checkbox"/>	<input type="checkbox"/>	Does facility optimize process baths before discarding (eliminating dump schedules and performing more frequent chemical analyses to determine when bath has exceeded its useful life)?
<input type="checkbox"/>	<input type="checkbox"/>	Does facility use filtration to remove suspended solids contamination (to reduce bath dumps)?
<input type="checkbox"/>	<input type="checkbox"/>	Does facility use other methods of treatment to maintain bath solutions (i.e. carbon treatment to remove metallic contaminants)?

Process chemical/material substitution:

Yes No

<input type="checkbox"/>	<input type="checkbox"/>	Has facility replaced cyanide-plating processes with non-cyanide processes?
<input type="checkbox"/>	<input type="checkbox"/>	Has facility eliminated the the use of hexavalent chromium ?

Reducing solvent use:

Yes No

<input type="checkbox"/>	<input type="checkbox"/>	Has facility replaced solvent-cleaning processes with aqueous or semi-aqueous cleaning processes?
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Chemical recovery:

Yes No

<input type="checkbox"/>	<input type="checkbox"/>	Does facility use any treatment methods to recover and return process chemicals to the process baths (evaporator units)?
<input type="checkbox"/>	<input type="checkbox"/>	Does the facility use ion exchange to treat rinse water and to allow the recovery of process chemicals?
<input type="checkbox"/>	<input type="checkbox"/>	Does facility send metal sludges to an off-site reclamation facility rather than to a disposal facility ?