

METAL FINISHING EVALUATION CHECKLIST

P2 PLANNING	Requirement (R) / Credit	70 Points	✓	Activity	
Management Planning	R	20		P2 Self Assessment or EMS	
	Credit	1		" First In First Out" Purchase Policy.	
		1		Purchase only what is needed.	
		1		Policy to return unused chemical samples to supplier.	
		1		Procedures in place to reduce contamination of tanks.	
		1		Employees given annual training in Pollution Prevention. Documentation maintained.	
		1			
Hazardous Materials/Waste Control	R	0		Regulatory requirements have been met.	
		0		Hazardous materials/waste stored in covered area.	
		0		Inspections are conducted, log maintained.	
		0		Employees trained in Hazardous Materials & Waste Management. Documentation maintained.	
		0		Wet floors have been eliminated.	
		0		All process tanks and piping are leak free.	
		0		Inspection problems are addressed. Documentation of corrections is maintained.	
		0		Emergency safety equipment available and in good working condition (i.e. eyewash/ shower).	
		Credit	5		Flooring is sealed. No visible cracks or corrosion
			1		Maintenance schedule in place for flooring.
			1		Shop layout examined to reduce spills and contamination.
			1		Pallets utilized to hold containers.
			1		Routine inventory of materials is conducted to determine shelf life.
	1			Bench scale testing is conducted.	
	1			Sample control person has been designated for chemical samples.	
	1 per item		Other: List items.		
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P2 PLANNING	Requirement (R) / Credit	70 Points	✓	Activity (continued)
	Credit	5		Spill Cleanup kits on site.
		10		Uses drip pans or trays
		5		Uses spouts or funnels to transfer fluids.
		10		Storm drains are stenciled with "No Dumping...Flows to Waterway".
		10		Warning signs posted above sinks "Do Not Discharge Hazardous Wastes..."
		5		Vacuums area as part of Storm water Prevention Plan.
		5 per item		Other: List items.
P2 Planning		SUBTOTAL		
PRODUCTION PROCESS	Requirement (R) / Credit	100 Points	✓	Activity
Cleaning	R	5		Works with customer to identify level of cleaning necessary.
		5		Procedures in place to reduce parts contamination (i.e. using clean gloves, parts boxed, reducing wait period.)
		10		Drain time has been adequately measured to reduce drag out. Documentation maintained.
	Credit	1		Solvent tanks equipped with closable lid.
		1		Solvent tanks have adequate freeboard space above vapor zone.
		1		Solvent tanks equipped with air chiller.
		1		Maintenance schedule for vapor degreaser tanks includes routine sludge removal.
		1		Documents lab analyses conducted on plating bath solutions to determine need to renew/replenish bath.
		1		Utilizes same solvent in all cleaning systems.
		10		Recycles spent solvent.
		25		Utilizes less toxic, biodegradable or aqueous cleaning agents. Documentation maintained.
		5		Utilizes aqueous soak tanks .
		5		Water nozzles used for spray rinsing are of correct size to reduce drag out.
		5		Maintenance schedule for aqueous soak tanks includes routine sludge removal.
Solvent cleaning must be compliant with local AQMD or APCD and California ARB requirements		5		Deionized water is utilized in all aqueous baths.

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PRODUCTION PROCESS	Requirement (R) / Credit	100 Points	✓	Activity (continued)
	Credit	10		Ultrasonic units are utilized in aqueous tanks.
		10		Recycles spent aqueous waste.
		10		Skimmers are utilized.
		10		Uses electrocleaning process(cathodic or anodic cleaning)
		1 per item		Other: List items.
Plating	Credit	25		Changed bath chemistry and uses non-cyanide solutions.
		25		Changed bath chemistry and uses non-hexavalent chrome solutions.
		1 - 5 per item		Other changes to bath chemistry conducted to reduce HW generation. List items.
		1 - 5 per item		Other changes to bath operations to improve plating efficiency. List items.
Drag Out Reduction	R	1		Assessing how parts are to be handled to provide optimal drainage. Documentation maintained.
		1		Assessing optimal removal rate and drainage time for each plating bath. Documentation maintained.
		5		Initial and annual Drag Out Reduction training is provided to employees. Training records maintained.
	Credit	1		Lowering bath concentrations to reduce viscosity.
		1		Increasing bath temperature to reduce viscosity.
		1		Utilizes surfactants to lower surface tension.
		1		Utilizing coated racks to place parts.
		1		Installing bars or rails above process tanks to hang racks.
		1		Spray rinses utilized above heated process baths.
		1		Installing drain boards to capture dripping solution off parts <u>and</u> return it to process bath.
		10		Utilizes automated system to move parts through process line.
		1		Utilizing static drag-out tanks as initial rinse following plating bath.
		5		Process plating baths replenished w/drag out solution. Documents volume or engineering controls in place.
Drag-in Reduction	R	5		Assessing how parts are to be handled to provide optimal drainage. Documentation maintained.

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PRODUCTION PROCESS	Requirement (R) / Credit	100 Points	✓	Activity (continued)	
Drag-in Reduction	R	5		Clearly labeling tanks to prevent employees from placing wrong chemicals or parts into plating tanks.	
Extending Bath Life	Credit	1		Pre-rinsing parts.	
		1		Utilizing high purity anodes to minimize contaminants.	
		1		Utilizing deionized water is utilized to aid in extending bath life.	
		5		Conducting lab analyses on plating bath solutions to determine need to renew/replenish bath.	
		1		Utilizing filtration system to remove solids.	
		1		Replenish bath prior to dumping bath.	
		1		Track bath life by work production (ex. Sq. ft. plated or amp hours).	
		Rinsing	Credit	5	
5				Tank size and shape has been improved to allow better rinsing (i.e. smaller tanks)	
5				Splashguards have been installed.	
5				Flow restrictors, flow control meters, timers or other devices are utilized to regulate water flow.	
5				Sensor-controlled switches to turn water off have been installed (i.e. conductivity sensor or pH meter).	
5				Utilizes spray rinses.	
5				Utilizes air knives.	
5				Maximizes rinsing efficiency by providing turbulence to tanks (forced air, forced water, ultrasonic.)	
5				Manually agitates workplace racks.	
1				Production process evaluated determine best layout to install multistage countercurrent rinse system.	
5				Utilizes multiple rinse tanks/countercurrent rinsing.	
5				Converted existing rinse tanks to a cascading system.	
1 - 5 per item				Other changes to tanks to improve rinse efficiency. List items.	
5	Credit				Reuses acidic rinse solution in the rinse system.
5					Utilizes spent acid/alkaline solutions to adjust pH in treatment systems.
Production Process				SUBTOTAL	

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RESOURCE RECOVERY & RECYCLING	Requirement (R) / Credit	25 Points	✓	Activity
Recycling Technologies	Credit	5		Drag out return
		5		Rinse water return.
		5		Reactive rinsing
		5		Plating Bath Purification.
		5		Rinse water Reclamation
		5		Metals Recovery
		5		Segregates waste streams.
				Recycles rinse water by:
		5		Evaporation
		5		Reverse osmosis
		5		Ion exchange
		5		Electrolysis
		5		Electrodialysis
		25		Utilizes a Closed Loop Rinse water System.
		1 per item		Other recovery or recycling activities: List items.
	Recycling Technologies	SUBTOTAL		
INDUSTRIAL WASTE WATER PRETREATMENT	Requirement (R) / Credit	50 Points	✓	Activity
	Credit	5		A pre-treatment system to treat process wastewater.
		5		Segregated treatment of chelating wastes.
		5		Segregated treatment of cyanide wastes.
		5		Segregated treatment of hexavalent chromium wastes.
	Credit	5		A sludge dewatering system to remove water from treatment sludge for recycling and disposal.
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INDUSTRIAL WASTE WATER	Requirement (R) / Credit	50 Points	✓	Activity
		5		A sludge drying system to reduce the weight of hazardous wastes for recycling and disposal.
		10		Uses alternate chemicals to NaOH and lime for precipitation to reduce sludge generation, e.g. sulfide precipitation.
		10		Uses alternate treatment system to reduce cyanide or oxidize hexavalent chromium, e.g. electrochemical methods.
		10		Uses alternate treatment system to minimize metal sludge generation, e.g. electrolytic metal recovery.
		10		Uses alternate cleaning systems to minimize chemicals and solvents, like ultrasonic cleaning and aqueous cleaning.
	R/Credit	5		Have an approved Toxic Organic Management Plan (TOMP) Note: REQUIREMENT City of Los Angeles applicants.
	R	5		In compliance with wastewater discharge limits and permit requirements (e.g. for 12 month period).
		5		Operated and maintained industrial wastewater pretreatment system in good order.
		5		Submitted reports for monitoring, permitting and surcharges as required.
		5		Paid fees and surcharges as required.
	Credit	1 - 5 per item		Other wastewater pretreatment activities. List items:
	Industrial Waste Water	SUBTOTAL		
WATER, ENERGY AND MATERIALS CONSERVATION	Requirement (R) / Credit	OPTIONAL Points	✓	Activity
	Credit	5		Water Use Reduction - Landscaping and Cleaning.
		5		Water Use Reduction - Washroom and Sinks.
		5		Energy Efficiency - Standard Performance
		10		Energy Efficiency - Superior Performance
		5		Alternate Energy Sources
		10		Energy Management System
		5		Material Use and Waste Reduction
		5		Sustainable Material Use
		1 - 5 per item		Other wastewater pretreatment P2 activities. List items.
	Water, Energy Conservation	SUBTOTAL		

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COMMUNITY OUTREACH	Requirement (R) / Credit	5 Points	Activity
	Credit	5	Participation in community organizations
		5	Engaged in community and school outreach
		5	Participation in Voluntary Environmental, Health, Safety, Security and Equity Initiatives
		5	Trade Association Member
		5	NADCAP, ISO
	Community Outreach	SUBTOTAL	
		TOTAL	