



Department of Environmental Protection Chromium Electroplating Compliance Calendar

2018

Summary of Federal EPA regulations for plating and polishing facilities 40 CFR Part 63 Subpart WWWW at the end of the calendar

This calendar is a record keeping compliance tool for Florida Chromium Electroplaters created by the Florida Small Business Environmental Assistance Program (SBEAP) and the Orange County Environmental Protection Division.

DISCLAIMER: This calendar is for compliance assistance purposes only. It is not official rule language. Please refer to Chapter 62-213, of the Florida Administrative Code for complete and up-to-date rule language.

GENERAL - You may use this calendar to keep records required for air program compliance.
Keep these records at your facility for 5 years.

JULY 2018 (example given)
 Calculate the cumulative rectifier capacity

Running Total From Last Month (Previous 12 month's Total)	420,000
SUBTRACT JULY 2017	- 65,000
ADD JULY 2018	+ 70,000
TOTAL	425,000

Enter running total from last month.

Enter the amount from the same month last year, from last year's records or calendar. Subtract that amount.

Add amount from the current month.

This is your 12-month running total

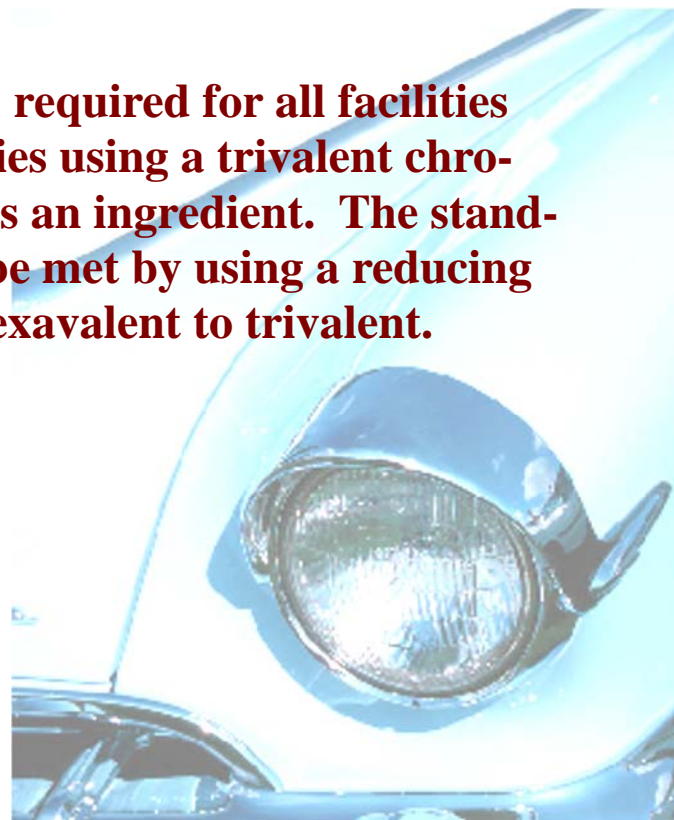
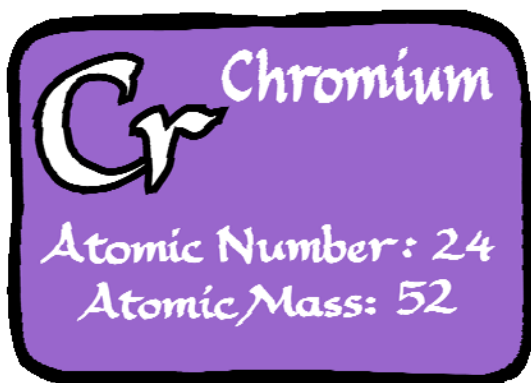
- Regulations that must be met:**
- Emission standards
 - Work practice standards
 - Monitoring requirements
 - Reporting requirements
 - Recordkeeping
 - Initial performance tests

Perform Ongoing Monitoring

Emissions Reduction Technique	What To Monitor	How Often
Composite Mesh Pad (CMP) System	Pressure drop across CMP system	Once daily
Packed-Bed Scrubber (PBS)	Inlet velocity pressure and pressure drop across PBS	Once daily
PBS/CMP System	Pressure drop across CMP system	Once daily
Fiber-Bed Mist Eliminator (FBME)	Pressure drop across FBME and across upstream control used to prevent unplugging	Once daily
Wetting Agent-Type Fume Suppressant	Bath Surface Tension	Once every 40 hours
Foam Blankets	Foam Thickness	Once every 8 hours

NOTE:

A written Operations and Maintenance Plan is required for all facilities except decorative chrome electroplating facilities using a trivalent chromium bath that incorporates a wetting agent as an ingredient. The standards applying to chromic acid baths shall not be met by using a reducing agent to change the form of chromium from hexavalent to trivalent.





JANUARY 2018

Tip of the Month: **Extend process bath life**—Test bath chemistry regularly. This will help you determine when more chemicals should be added or when impurities should be removed.



Inspections <input type="checkbox"/>
Recordkeeping <input type="checkbox"/>
Monthly Ampere Usage: _____

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			



FEBRUARY 2018

Tip of the Month: **Extend process bath life** - Lower process bath concentration levels. By experimenting and lowering levels to just above the point where defects start to occur, you can significantly reduce chemical costs.



Inspections

Recordkeeping

Monthly Ampere Usage:

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			



MARCH 2018

Tip of the Month: **Extend process bath life** - Quickly remove dropped parts and tools from process baths to reduce contamination. Have rakes handy to remove dropped items.



Inspections

Recordkeeping

Monthly Ampere Usage:

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31



APRIL 2018

Tip of the Month: **Extend process bath life** - Use “purified” water instead of tap water for makeup. Contaminants in tap water can foul up bath chemistry and create extra sludge.



Inspections

Recordkeeping

Monthly Ampere Usage:

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					



MAY 2018

Tip of the Month: Extend process bath life - Cover the baths with lids when not in use to prevent unwanted materials from entering the baths.



Inspections

Recordkeeping

Monthly Ampere Usage:

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		



JUNE 2018

Tip of the Month: Reduce chromium emissions - Switch to trivalent chrome or some other coating. Use mechanical agitation instead of air sparging. Add surface tension reducers to allow bubbles to dissipate before reaching the surface instead of bursting.



Inspections

Recordkeeping

Monthly Ampere Usage:

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30



JULY 2018

Tip of the Month: Reduce chrome emissions - Add fume suppressants. Install a pollution control device such as a packed-bed scrubber, composite mesh pad system or fiber-bed mist eliminator. These require strict work practice standards including a formal operation and maintenance plan.



Inspections

Recordkeeping

Monthly Ampere Usage:

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
28	30	31				



AUGUST 2018

Tip of the Month: **Reduce drag out** - Remove parts slowly (~11 ft/min). This allows the solution to flow back into the process tank. For manual operations having hoists overhead can reduce worker fatigue due to slowly taking out heavy racks or parts.



Inspections

Recordkeeping

Monthly Ampere Usage:

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	



SEPTEMBER 2018

Tip of the Month: **Reduce drag-out** - Drain boards can be placed over the lips of two adjacent tanks to catch any drips of drag-out when transferring parts. Slope the boards back to the first tank. This reduces drag out, keeping floors clean.



Inspections

Recordkeeping

Monthly Ampere Usage:

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23 30	24	25	26	27	28	29



OCTOBER 2018

Tip of the Month: Rinse efficiency - Increasing rinse efficiency will reduce water and sewer bills and treatment costs. Rinse tanks should be sized as small as possible depending on the largest part or rack to be immersed. This improves rinse efficiency and reduces water usage. Agitating the rinse can improve the rinse efficiency.



Inspections

Recordkeeping

Monthly Ampere Usage:

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			



NOVEMBER 2018

Tip of the Month: **Hazardous materials storage** - Store on an impervious surface. Store under cover, whether indoors or outdoors. Be sure containers are properly sealed. Provide some type of secondary containment. This area should be able to contain any leaks or spills.



Inspections

Recordkeeping

Monthly Ampere Usage:

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	



DECEMBER 2018

Tip of the Month: **Hazardous materials storage** - Label containers properly, include contents and generation date of hazardous waste. Make sure drums are easily accessible but not stored in high traffic areas where they can be easily knocked over. Regularly check for leaks.



Inspections

Recordkeeping

Monthly Ampere Usage:

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23 30	24 31	25	26	27	28	29

Brief Summary

EPA Regulations for

Plating and Polishing Facilities

40 CFR Part 63 Subpart WWWW

EPA has new requirements to reduce air pollution from plating and polishing facilities. The vapor from these facilities contain Cadmium, **Chromium**, Manganese, Nickel, Lead, and other harmful chemicals that pose a health risk to anyone who breathes air containing them.

This is a short summary of things that plating and polishing operations must do to comply with the new rule requirements. For more details and assistance, please talk to your local environmental contact.

Specific Requirements

- **Compliance dates: Existing sources by 07/01/10; New sources upon start-up**
- Non-cyanide electroplating, electroforming or electro polishing with pH<12
 - Use wetting agent/fume suppressant (WAFS), control device or tank cover
 - Management practices to minimize or eliminate potential emissions
- Flash or short-term electroplating
 - Use tank covers or limit plating time to 3 min/hr or 1 hr/day
 - Management practices to minimize or eliminate potential emissions
- Dry mechanical polishing and thermal spraying (permanent operations)
 - Exhaust emissions to a control device
- Cyanide electroplating (pH ≥12), non-electrolytic plating and coating operations (such as electroless nickel plating and chromate conversion coating), and temporary thermal spraying:
 - Management practices to minimize or eliminate potential emissions

Management Practices to Minimize or Eliminate Potential Emissions, as Practicable

- Keep tank liquid as still as you can when removing parts processed in the tank.
- Make the drip time as long as you can when removing parts from the tank. Use drain boards (also known as drip shields) or remove parts slowly from the tank.
- Design barrels, racks, and parts to minimize dragout of bath solution (such as by using slotted barrels and tilted racks, or by designing parts with flow-through holes to allow the tank solution to drip back into the tank).
- Use tank covers whenever you can.
- Minimize or reduce heating of process tanks whenever possible.
- Perform regular repair, maintenance, and preventive maintenance of racks, barrels, and other equipment.
- Minimize bath contamination however possible by not dropping parts or quickly recovering dropped parts, using distilled/de-ionized water, filtering the water, pre-cleaning the parts before plating and rinsing pre-treated parts before plating.

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- Make sure that the chemicals and other bath ingredients are at the correct levels in the tank.
- Perform general good housekeeping, such as regular sweeping or vacuuming, if needed, and washdowns when needed.
- Minimize spills and overflow of tanks as much as possible.
- Use squeegee rolls in continuous or reel-to-reel plating tanks.
- Perform regular inspections to identify leaks and other ways to prevent pollution.

Reporting

- Prepare Annual Certification of Compliance **report by January 31st of each year** for the previous year. Submit by January 31st if any deviations occurred during the previous year.
- Prepare and submit **Report of Deviations by January 31st of each year**, if applicable.
- Submit Initial Notification:
 - **Existing sources on 10/29/08**
 - **New sources on 10/29/08 or upon startup** (*correction: note rule will be revised*)
- Submit Notification of Compliance Status:
 - **Existing sources on 07/01/10**
 - **New sources upon start-up**
-

Recordkeeping

- All required notifications and reports, with supporting data.
- Records that show you meet the management practices.
- For cyanide tanks, provide the one-time pH measurement value.
- For non-cyanide tanks, provide the amount and frequency of WAFS additions, if applicable.
- For short-term or flash electroplating tanks, the daily plating time.
- For electroplating tanks using covers as a control option, the time the tank is operated with cover in place.
- **Records must be kept for a period of 5 years.**

The rule itself can be found at this link:

<http://www.ecfr.gov/cgi-bin/text-idx?SID=9a20aa9ed38e43fd20c9474543ede082&node=40:15.0.1.1.1.36&rgn=div6>



ATTENTION:

The Air General Permit is ***NOT TRANSFERABLE*** and does not follow a change in ownership of the facility. If you are a new owner and have not submitted a registration worksheet and/or have any permitting questions, please contact the **Small Business Environmental Assistance Program** at **1-800-722-7457**

It is the seller's responsibility to notify the FDEP, Division of Air Resource Management of the pending change in ownership. Likewise, it is the responsibility of the new owner/company to submit a new Air General Permit Registration (or required information) no later than 30 days prior to the sale.

You can **register online** electronically at:

<https://floridadep.gov/air/permitting-compliance/content/air-general-permits>

If you prefer to register manually by hardcopy, then print the "Chromium Electroplaters Air General Permit Registration Worksheet" located at:

<https://floridadep.gov/air/permitting-compliance/content/chromium-electroplaters>

Registrations and fees should be mailed to the following address:

FDEP Receipts

P.O. Box 3070

Tallahassee, FL 32315-3070

