



Compliance Calendar for Florida Chromium Electroplaters 2022

This calendar is designed to assist Chromium Electroplater members with tracking of material usage and compliance assistance. It summarizes environmental regulations and provides a place for you to keep required records. Keep these records at your facility for five years.

Provided by: Small Business Environmental Assistance Program, DEP

Environmental Regulations

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.

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

Division of Air Resource Management

For Chromium Electroplaters operation questions, please contact the Small Business Environmental Assistance Program (SBEAP) at 1-800-722-7457, or by email: Small.Business@FloridaDEP.gov

- The SBEAP provides free and confidential assistance with environmental regulations.
- If it's located in Broward, Duval, Hillsborough, Miami-Dade, Orange, Palm Beach, Pinellas, or Sarasota counties, visit our Local Program at <https://floridadep.gov/air/air-director/content/local-program-air-contacts>. For all other counties, go to our District Air Contacts, <https://floridadep.gov/air/air-director/content/district-air-contacts>.



Example to Calculate the Cumulative Rectifier Capacity

Running Total from Last Month (previous 12 month's total)	Enter running total from last month.	420,000
SUBTRACT July 2021 Data	Enter the amount from the same month last year, from last year's records or calendar.	65,000
ADD July 2022 Data	Add amount from the current month.	70,000
TOTAL	This is your 12-month running total.	425,000

Criteria to Meet

Emission standards

Work practice standards

Monitoring requirements

Reporting requirements

Recordkeeping

Initial performance tests

January 2022

Calculate the Cumulative Rectifier Capacity	
Running Total from Last Month (Previous 12 Month's Total)	
January 2021 (subtract)	
January 2022 (add)	
Total	

[illegible][illegible]

January 2022

MONDAY		TUESDAY		WEDNESDAY		THURSDAY		FRIDAY		SATURDAY		SUNDAY	
Inspections		<div></div>								1		2	
Record Keeping		<div></div>											
Monthly Ampere Usage		<div></div>											
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													

Tips and Reminders: You can register, renew, change ownership or make administrative corrections to AGPs online.

Air General Permit Electronic Registration System (AGPERS), <http://www.fldepportal.com/DepPortal/go/apply-operate-airfacility>.

February 2022

Calculate the Cumulative Rectifier Capacity	
Running Total from Last Month (Previous 12 Month's Total)	
February 2021 (subtract)	
February 2022 (add)	
Total	

[illegible][illegible]

February 2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
	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					Inspections <input type="text"/> Record Keeping <input type="text"/> Monthly Ampere Usage _____	

Tips and Reminders: Reprint a receipt for an online payment, <http://www.fldepportal.com/DepPortal/go/continue/>.

- 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.

March 2022

Calculate the Cumulative Rectifier Capacity

Running Total from Last Month (Previous 12 Month's Total)	
March 2021 (subtract)	
March 2022 (add)	
Total	

Foam Blanket Record Keeping (Every 8 Hours)

[illegible]

Surface Tension Record Keeping (Every 40 Hours)

[illegible]

March 2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
	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		<div> <div>Inspections <input type="checkbox"/></div> <div>Record Keeping <input type="checkbox"/></div> <div>Monthly Ampere Usage _____</div> </div>	

Tip: To make administrative corrections to an Air General Permit, sign into DEP Business Portal, <http://www.fldepportal.com/go/home>.

- 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.

April 2022

Calculate the Cumulative Rectifier Capacity	
Running Total from Last Month (Previous 12 Month's Total)	
April 2021 (subtract)	
April 2022 (add)	
Total	

[illegible][illegible]

April 2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
Inspections Record Keeping Monthly Ampere Usage _____	<input type="text"/> <input type="text"/>			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	

Tips and Reminders: To Register or Renew an Air General Permit, go to the DEP Business Portal Air Facility page at <http://www.fldeportal.com/go/home/> and sign in or register from the link in the upper right corner of the page.

- 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.

May 2022

Calculate the Cumulative Rectifier Capacity

Running Total from Last Month (Previous 12 Month's Total)	
May 2021 (subtract)	
May 2022 (add)	
Total	

Foam Blanket Record Keeping (Every 8 Hours)

[illegible]

Surface Tension Record Keeping (Every 40 Hours)

[illegible]

May 2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
Inspections Record Keeping Monthly Ampere Usage	<input type="text"/> <input type="text"/> <input type="text"/>					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					

Tips and Reminders: For more information on AGPs or assistance with using the online renewal, please contact DEP's Small Business Environmental Assistance Program at 1-800-722-7457.

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

June 2022

Calculate the Cumulative Rectifier Capacity	
Running Total from Last Month (Previous 12 Month's Total)	
June 2021 (subtract)	
June 2022 (add)	
Total	

[illegible][illegible]

June 2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
		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		<div> <div>Inspections</div> <input type="text"/> </div> <div> <div>Record Keeping</div> <input type="text"/> </div> <div> <div>Monthly Ampere Usage</div> <input type="text"/> </div>	

Tips and Reminders: For more information on AGPs or assistance with using AGPERS, please contact DEP's Small Business Environmental Assistance Program at 1-800-722-7457.

- 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.

July 2022

Calculate the Cumulative Rectifier Capacity

Running Total from Last Month (Previous 12 Month's Total)	
July 2021 (subtract)	
July 2022 (add)	
Total	

Foam Blanket Record Keeping (Every 8 Hours)

[illegible]

Surface Tension Record Keeping (Every 40 Hours)

[illegible]

July 2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
Inspections Record Keeping Monthly Ampere Usage _____	<input type="text"/> <input type="text"/>			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

Tips and Reminders: Compliance Assistance Information, Facility Inspection Checklist for Chromium Electroplating and Anodizing Tanks,
<https://floridadep.gov/air/permitting-compliance/documents/chromium-facility-inspection-checklist>.

- 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.

August 2022

Calculate the Cumulative Rectifier Capacity	
Running Total from Last Month (Previous 12 Month's Total)	
August 2021 (subtract)	
August 2022 (add)	
Total	

[illegible][illegible]

August 2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
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			Inspections <input type="text"/> Record Keeping <input type="text"/> Monthly Ampere Usage _____	

Tips and Reminders: National Metal Finishing Resource Center, <http://www.nmfrc.org/>.

- 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.

September 2022

Calculate the Cumulative Rectifier Capacity	
Running Total from Last Month (Previous 12 Month's Total)	
September 2021 (subtract)	
September 2022 (add)	
Total	

[illegible][illegible]

September 2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
Inspections Record Keeping Monthly Ampere Usage _____	<input type="text"/> <input type="text"/>		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		

Tips and Reminders: You can register, renew, change ownership or make administrative corrections to AGPs online. Air General Permit Electronic Registration System (AGPERS), <https://www.fldepportal.com/DepPortal/go/apply-operate-airfacility>.

- 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.

October 2022

Calculate the Cumulative Rectifier Capacity

Running Total from Last Month (Previous 12 Month's Total)	
October 2021 (subtract)	
October 2022 (add)	
Total	

Foam Blanket Record Keeping (Every 8 Hours)

[illegible]

Surface Tension Record Keeping (Every 40 Hours)

[illegible]

October 2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
					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					Inspections <input type="text"/> Record Keeping <input type="text"/> Monthly Ampere Usage _____	

Tips and Reminders: You can register, renew, change ownership or make administrative corrections to AGPs online. Air General Permit Electronic Registration System (AGPERS), <https://www.fldepportal.com/DepPortal/go/apply-operate-airfacility>.

- 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.

November 2022

Calculate the Cumulative Rectifier Capacity	
Running Total from Last Month (Previous 12 Month's Total)	
November 2021 (subtract)	
November 2022 (add)	
Total	

[illegible][illegible]

November 2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
	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			<div> <div>Inspections</div> <div>Record Keeping</div> <div>Monthly Ampere Usage</div> </div> <div> <input type="text"/> <input type="text"/> <input type="text"/> </div>	

Tip: For more information on AGPs or assistance with using AGPERS, please contact DEP's Small Business Environmental Assistance Program at 1-800-722-7457.

- Chromium electroplaters are eligible to operate in Florida under the terms of an air general permit (AGP) pursuant to the requirements of Rule 62-210.310(5)(i), Florida Administrative Code (F.A.C.).

December 2022

Calculate the Cumulative Rectifier Capacity	
Running Total from Last Month (Previous 12 Month's Total)	
December 2021 (subtract)	
December 2022 (add)	
Total	

[illegible][illegible]

December 2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
Inspections Record Keeping Monthly Ampere Usage	<input type="text"/> <input type="text"/> <input type="text"/>		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	

Tips and Reminders: You can register, renew, change ownership or make administrative corrections to AGPs online. Air General Permit Electronic Registration System (AGPERS), <https://www.fldepportal.com/DepPortal/go/apply-operate-airfacility>.

- 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.

Summary for EPA Regulations for Plating and Polishing Facilities, 40 CFR Part 63 Subpart WWWWWW

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 $\text{pH} < 12$
 - 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 ($\text{pH} \geq 12$), 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.
- 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 can be found at this link:

<https://www.ecfr.gov/current/title-40/part-63/subpart-wwwww>

District and County Air Program Contacts

Office	Location	Contact Person	Telephone	email
Northwest District	Pensacola	Carol Melton	850-595-0616	Carol.Melton@dep.state.fl.us
Northwest District	Pensacola	Blaine Mershon	850-595-0634	Blaine.Mershon@floridadep.gov
Northwest District Branch	Pensacola	Tracy White	850-245-7628	Tracy.A.White@dep.state.fl.us
Northeast District	Jacksonville	Marc Lovallo	904-256-1566	Marc.Lovallo@FloridaDEP.gov
Northeast District	Jacksonville	Chris Kirts	904-256-1553	Christopher.Kirts@FloridaDEP.gov
Southwest District	Tampa	Michael Lynch	813-470-5746	Michael.Lynch@dep.state.fl.us
Central District	Orlando	Daniel Hall	407-897-4167	Daniel.K.Hall@FloridaDEP.gov
Southeast District	West Palm Beach	Alannah Irwin	561-681-6626	Alannah.Irwin@FloridaDEP.gov
South District	Fort Myers	Katie O'Gara	239-344-5690	Katie.Ogara@FloridaDEP.gov
Miami-Dade County	Miami	Air Facilities Steven Bedoya	305-372-6925 305-372-6825	AirFacilities@miamidade.gov Steven.Bedoya@miamidade.gov
Broward County	Plantation	D'Arcy Damveld-Ansel	954-519-1459	DDAMVELDANSEL@broward.org
Duval County	Jacksonville	Patricia Gee-Jones	904-255-7199	PATRICIA@coj.net
Hillsborough County	Tampa	Sahand Nasseris	813-627-2600, Extension 1355	nasseris@epchc.org
Palm Beach County	West Palm Beach	Jeff Dizek	561-837-5925	Jeff.Dizek@flhealth.gov
Pinellas County	Clearwater	Sherrill Culliver	727-464-4422	sculliver@pinellascounty.org
Orange County	Orlando	Ilka Bundy	407-836-1476	ilka.bundy@ocfl.net
Sarasota County	Sarasota	Michael Storino	941-861-0909	mstorino@scgov.net

The Chromium Electroplater 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.

You can register, renew, change ownership or make administrative corrections to AGPs online. Air General Permit Electronic Registration System (AGPERS), <https://www.fldepportal.com/DepPortal/go/apply-operate-airfacility>.

If you prefer to register manually by hardcopy, then print the “Chromium Electroplater 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:

Department of Environmental Protection
Attn: FDEP Air General Permits
2600 Blair Stone Road, MS 5500
Tallahassee, Florida, 32399-2400