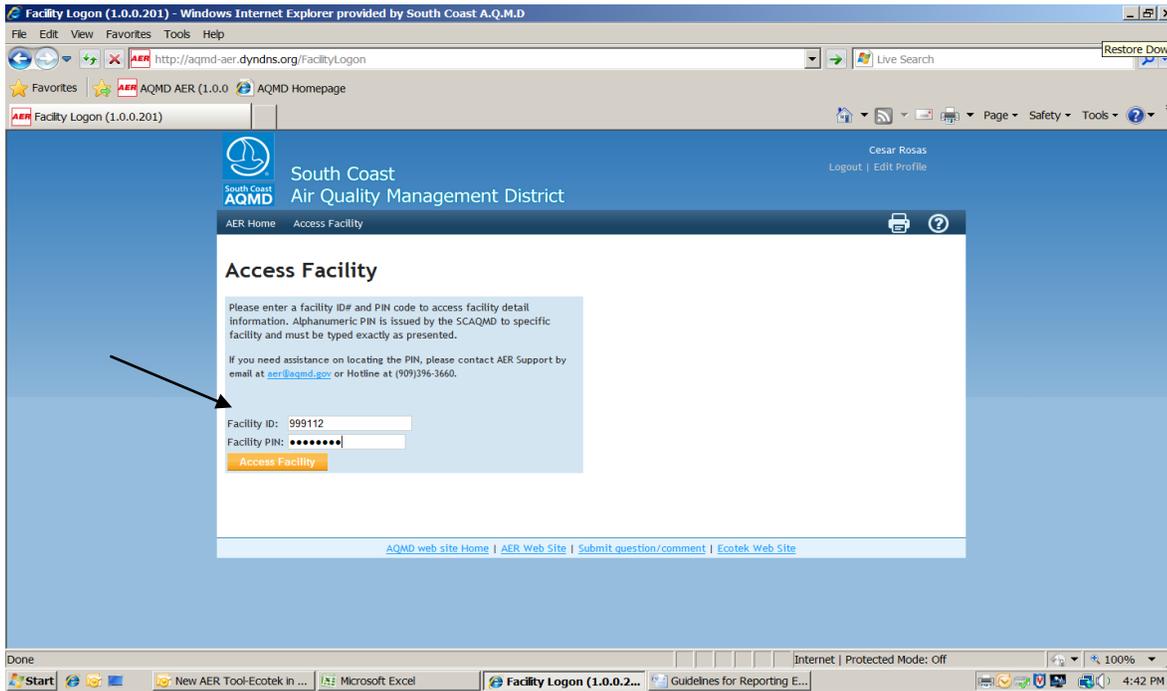


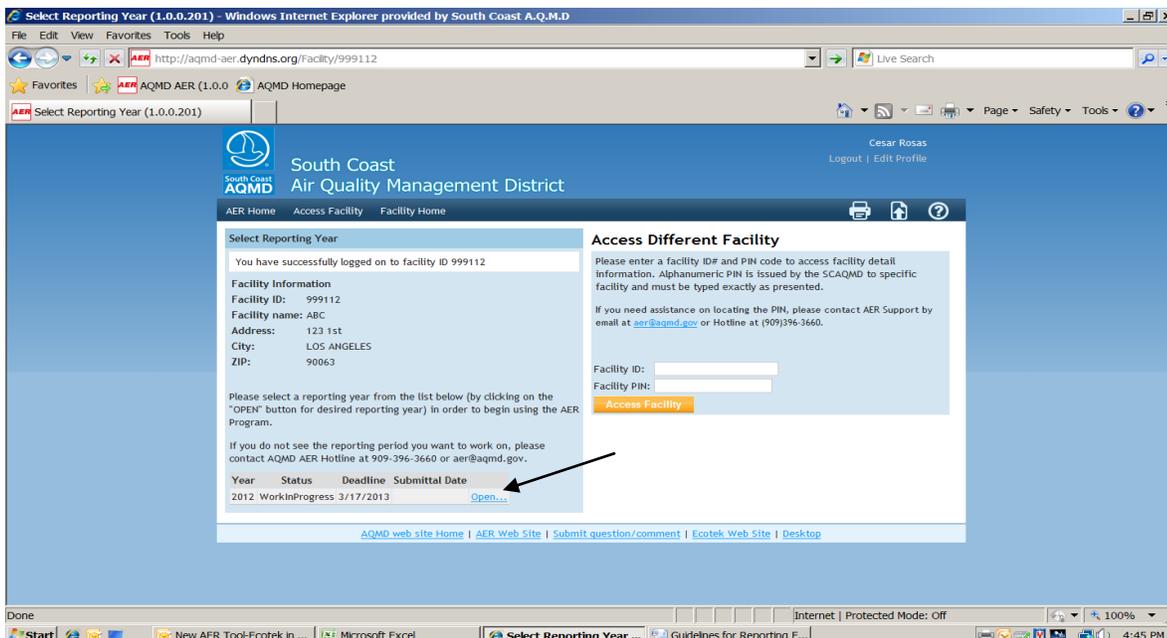
# Example for Reporting Emissions from Plating Operations using the New AER Tool

The following is an example on how to report emissions from Plating Operations using the new AER tool:

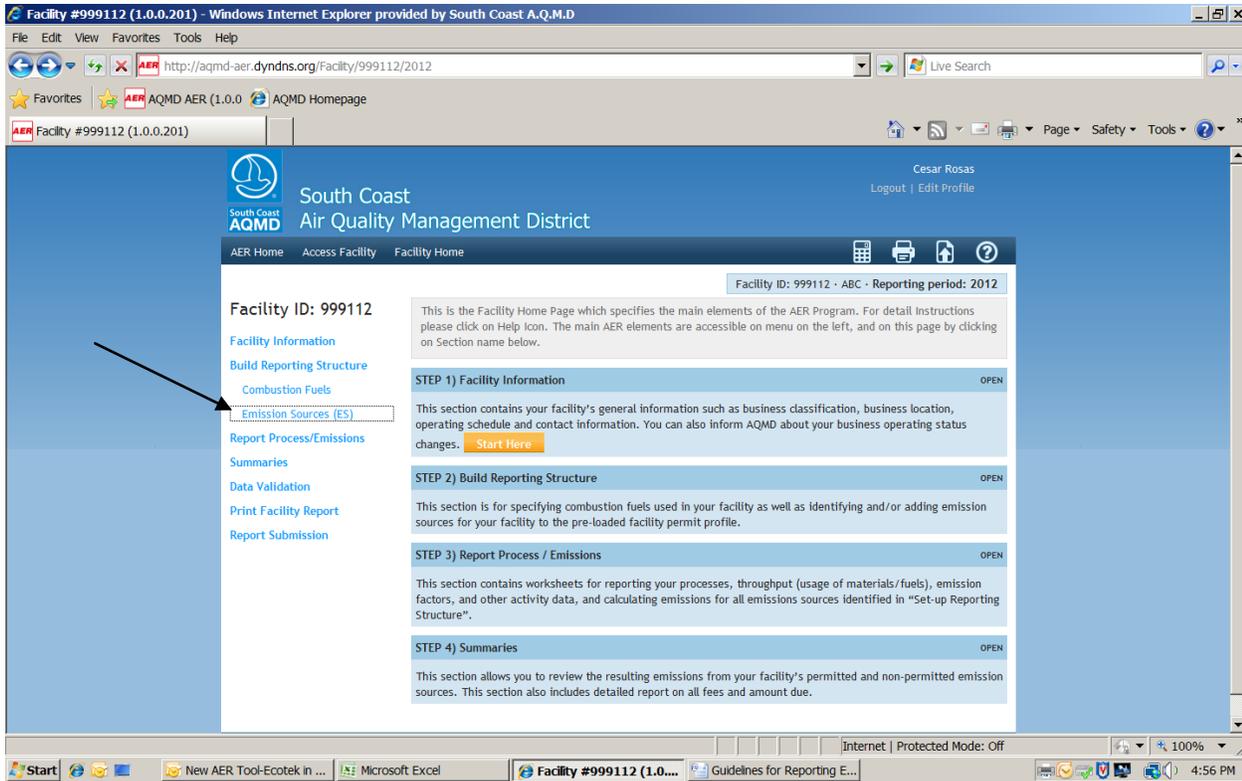
- After you have successfully logged in, the next window is “Access Facility”. Enter Facility ID and PIN Code. Then click on “**Access Facility**” button.



**Next Window:** Find your reporting year and click the “**Open**” button.

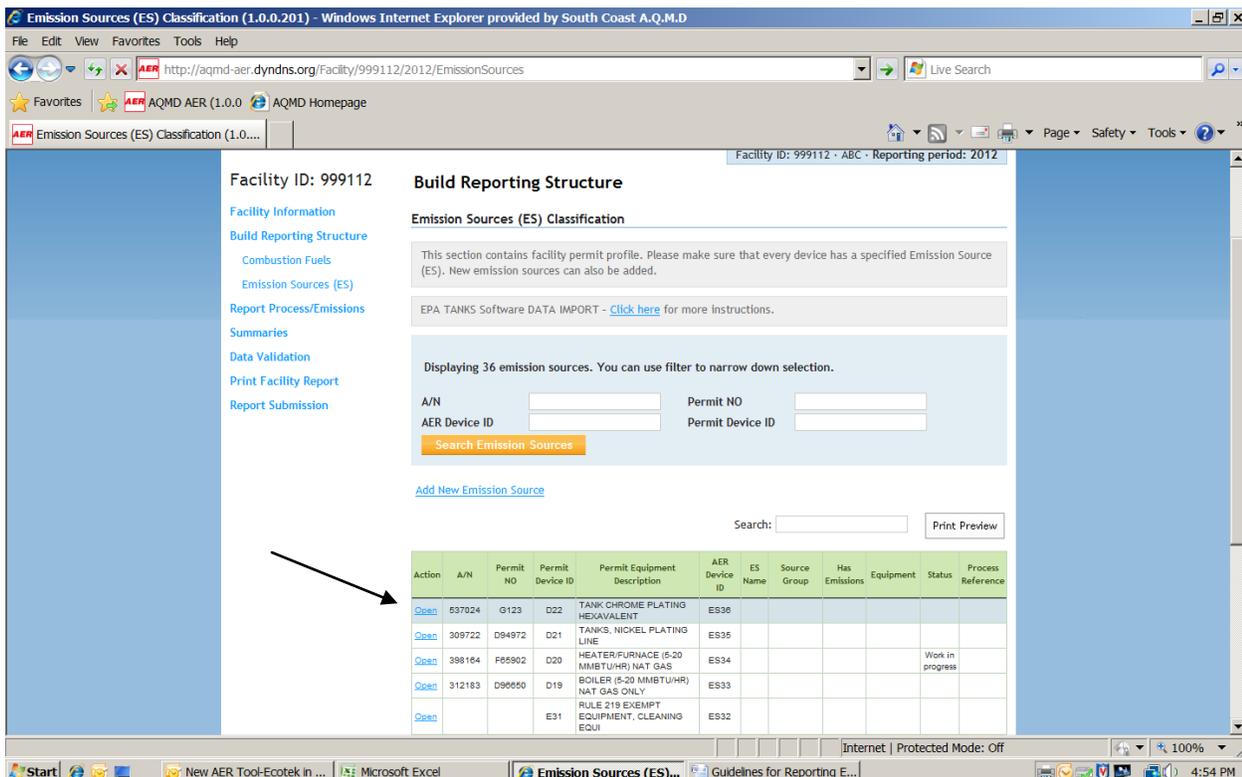


**Next Window: Click on Emission Sources (ES) from the menu on the left.**



**Next Window: (“Emission Sources (ES) Classification”)**

Click “Open” the Permit Equipment you want to report. (Example: Tank, Chrome Plating Hexavalent)



## Next Window: (“Edit Emission Source”)

Facility ID: 999112

**Edit Emission Source**

Providing correct information and proper selection categories would help to classify emission source.

Permitted

A/N: 537024  
 Permit No: G123  
 Permit Device ID: D22  
 Permit Equipment Description: TANK CHROME PLATING HEXAVALENT  
 AER Device ID: ES36  
 ES Name: Chrome Plating Tank  
 Operating ES Status: Normal Operation  
 Comment: Equipment operating during reporting year  
 Emission Source Group: Other Processes  
 Equipment: Other process equipment

Buttons: Save and return to List of Emission Sources | Save and proceed to Process Reporting | Cancel  
 Optional: Save and Mark as Completed

- **Operating ES Status:** Select “Normal Operation” - for equipment that operated during the reporting period and provide comment.
- **Emission Source Group:** Click “Determine Emissions Source Group Type” bar. Select “7. Other Processes”, then place a checkmark in the box “Other Process Equipment”. Click “Save” button.
- Click “Save and proceed to Process Reporting”

## Next Window: (“Process References“)

South Coast Air Quality Management District

Facility ID: 999112 - ABC - Reporting period: 2012

A/N	Permit No	Permit Device ID	Permit Description	AER Device ID	ES Name	Source Group	Emissions?	Equipment	Status
537024	G123	D22	TANK CHROME PLATING HEXAVALENT	ES36	Chrome Plating Tank	Other Processes	Y	Other process equipment	Work in progress

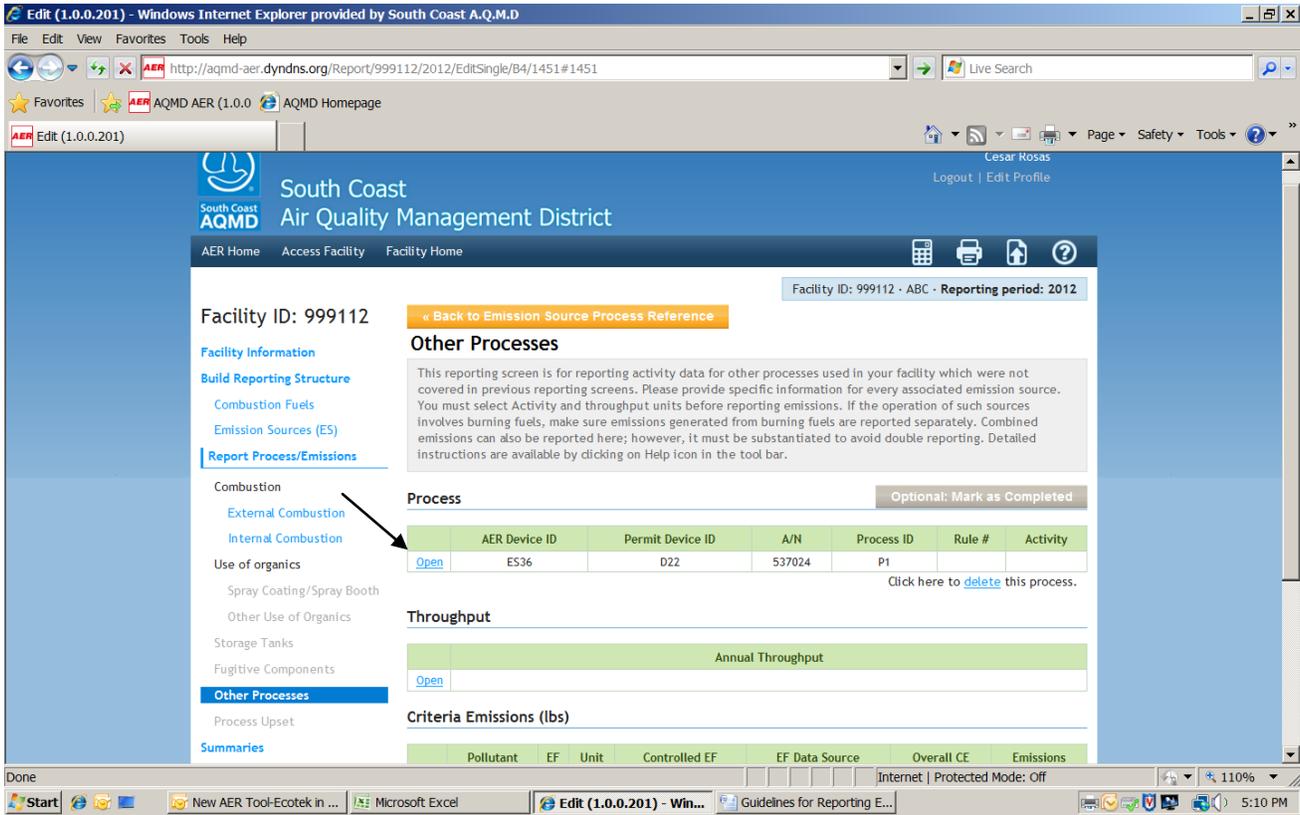
Modal Window Details:

Process ID: [input]  
 Source Group: Other Process Emissions  
 Process Name: Chrome Plating Tank  
 Status: Work in progress

Buttons: Add Process | OK

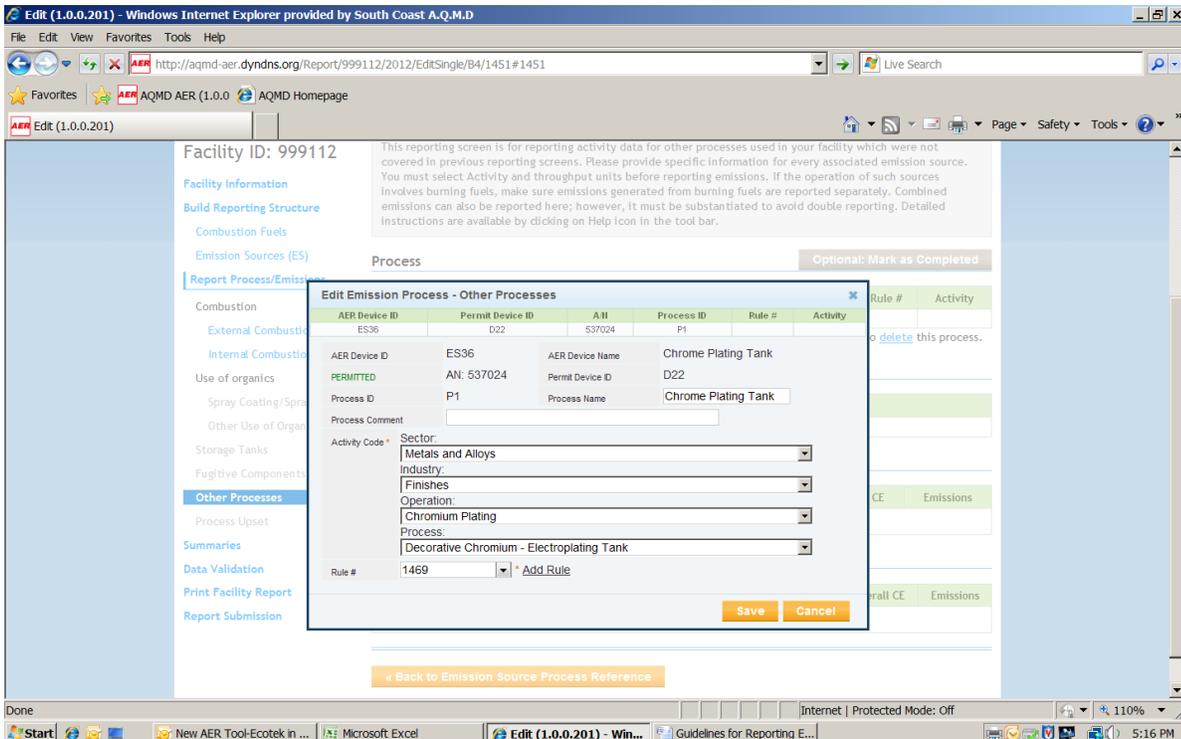
- Click on Process ID marked “P1”

**Next Window: (“Other Processes”)**



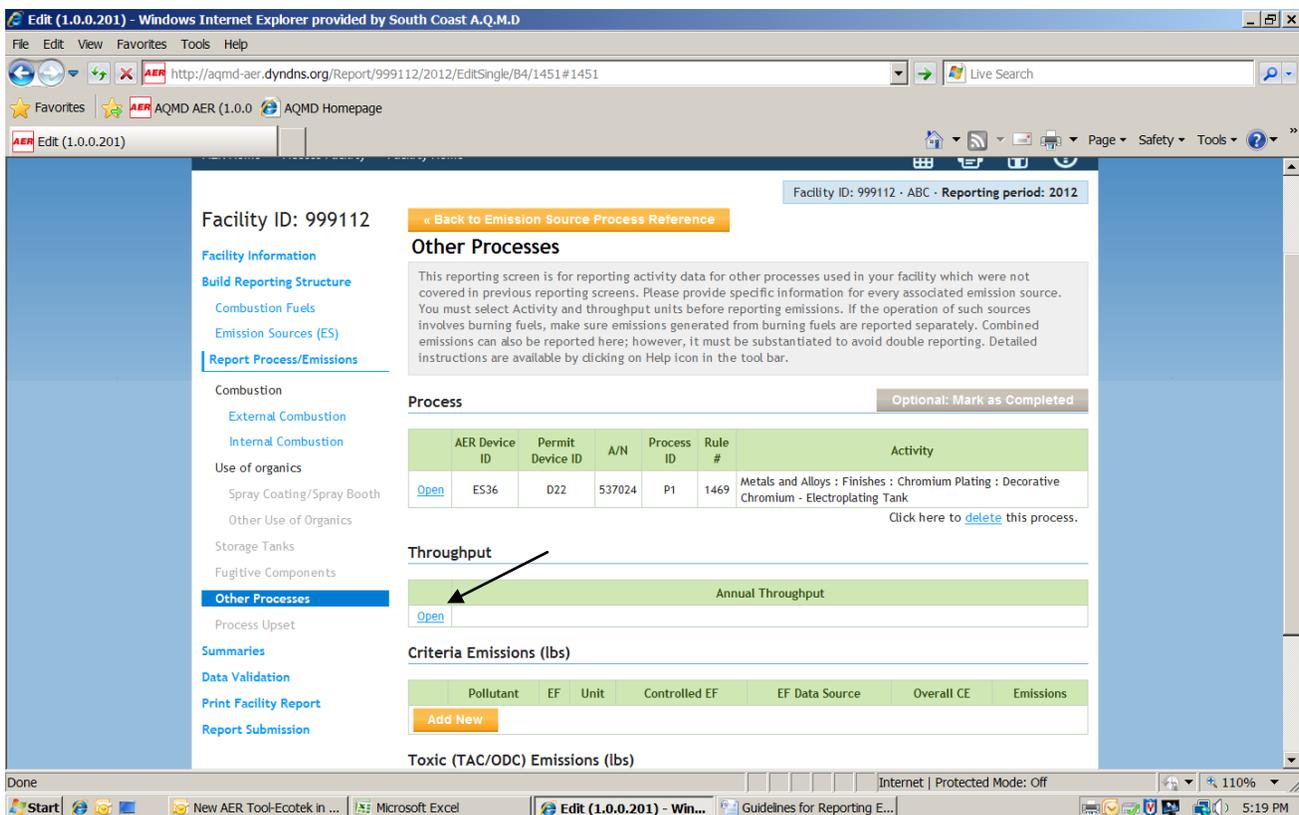
- In the **Process**, Click “Open” the AER device you want to report. (Example: **Open** AER Device ID – ES36)

**Next Window: (“Edit Emission Process – Other Processes”)**



- Fill out Process Name
- Fill out Process Comment (if any)
- Fill out Activity Code. ( Click on drop down list and select applicable Sector; Industry; Operation; Process)
- Fill out Rule #.  
 (Example: **Rule 1426** - Emissions from Metal Finishing Operations - for facility performing chromium, nickel, cadmium, lead or copper electroplating operations, or chromic acid anodizing or any facility with process tanks containing sulfuric acid, nitric acid, hydrochloric acid, chromic acid (excluding chromic acid used in electroplating and anodizing tanks), and sodium hydroxide used in spraying operations, associated with any of the above electroplating or anodizing operations.); **Rule 1469** - Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations).
- Click **“Save”** button.

**Next Window: (“Other Processes”)**



- **Throughput:** Click **“Open”** to access throughput information on next worksheet.

## Next Window: (Edit Throughput Information - Other Processes”)

The screenshot shows the AQMD AER (1.0.0.201) web application interface. The main window displays the 'Other Processes' reporting screen for Facility ID: 999112, Reporting period: 2012. A dialog box titled 'Edit Throughput Information - Other Processes' is open, showing a table of emission sources. The selected row is:

AER Device ID	Permit Device ID	A.I.N.	Process ID	Rule #	Activity
ES36	D22	537024	P1	1469	Metals and Alloys - Finishes : Chromium Plating : Decorative Chromium - Electroplating Tank

The dialog box contains the following fields:

- Annual Throughput: 555
- Throughput Type: Input
- Throughput Comment: (empty)

Buttons: Save, Cancel

- **Annual Throughput**

(If the total for rectifier is recorded in Amp-hours, divide by 1000. Example: annual total = 555,000 Amp-hr.; Divide 555,000 by 1,000 = 555.)

- Enter **555** in the box.
- Select **1000 Amp-hr** from the dropdown list
- **Throughput Type**: Select “Input”
- **Throughput Comment**: Provide comment (if any)
- Click “**Save**” button.

## Report the Criteria Emissions:

Facility ID: 999112

**Other Processes**

This reporting screen is for reporting activity data for other processes used in your facility which were not covered in previous reporting screens. Please provide specific information for every associated emission source. You must select Activity and throughput units before reporting emissions. If the operation of such sources involves burning fuels, make sure emissions generated from burning fuels are reported separately. Combined emissions can also be reported here; however, it must be substantiated to avoid double reporting. Detailed instructions are available by clicking on Help icon in the tool bar.

**Process** Optional: Mark as Completed

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity	
<a href="#">Open</a>	ES36	D22	537024	P1	1469	Metals and Alloys : Finishes : Chromium Plating : Decorative Chromium - Electroplating Tank

[Click here to delete this process.](#)

**Throughput**

Annual Throughput
<a href="#">Open</a>
555.0 1000 Amp-hr

**Criteria Emissions (lbs)**

Pollutant	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
<a href="#">Add New</a>						

**Toxic (TAC/ODC) Emissions (lbs)**

TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
<a href="#">Add New</a>							

- In the “Criteria Emissions (lbs)”, click “Add New”

## Next Window: (“Open Criteria Emission Information – Other Processes”)

Facility ID: 999112

**Open Criteria Emission Information - Other Processes**

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
ES36	D22	537024	P1	1469	Metals and Alloys : Finishes : Chromium Plating : Decorative Chromium - Electroplating Tank

**Annual Throughput**  
555.0 1000 Amp-hr

Pollutant: PM - Particulate Matter  
Emission Factor (EF): 0.0200 \* lbs/1000 Amp-hr  
 Controlled EF value (mark checkbox if EF listed represents EF determined after control)

Overall Control Efficiency: 0.99970  
Emission Factor Comment: emissions are controlled with 2-stage mist eliminator and HEPA filters.  
Emission Factor Data Source: AQMD default  
Emissions: 0.00 lbs

[Click here to delete this Emission.](#)

[Save](#) [Cancel](#)

- **Pollutant:** Select **PM** in the Pollutant drop-down list.
- **Emission Factor (EF):** Default uncontrolled "Total PM" emission factors for various plating processes are available in the Help and Support. [Table 1. – Uncontrolled Emission Factors for Plating Operations](#)
- **Controlled EF value checkbox:** Leave unchecked if uncontrolled default emission factor was used above.
- **Overall Control Efficiency:** Enter in decimal format. (Example 99.97% = enter as 0.9997).

As stated earlier, the overall AER control efficiency cannot exceed the HEPA control efficiency of 99.97%.

Help and Support also provides the following:

[Table 2 : Certified Wetting-Agent Chemical Fume Suppressants, Companies, and Usage Restrictions for Hexavalent Chromium Electroplating and Chromic Acid Anodizing Operations](#)

[Table 3 : Approved Control Efficiencies for Plating Operations.](#)

Table 3 provides efficiencies for various add-on control methods.

- **Emission Factor Comment:** Provide comment (if any)
- **Emission Factor Data Source:** Select source from drop down list. (Example : AQMD Default)
- Click **“Save”** button.

## Report the TAC Emissions:

Facility ID: 112968

You must select Activity and throughput units before reporting emissions. If the operation of such sources involves burning fuels, make sure emissions generated from burning fuels are reported separately. Combined emissions can also be reported here; however, it must be substantiated to avoid double reporting. Detailed instructions are available by clicking on Help icon in the tool bar.

**Process** Optional: Mark as Completed

	AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
<a href="#">Open</a>	ES3		335452	P1	1469	Metals and Alloys : Finishes : Chromium Plating : Decorative Chromium - Electroplating Tank

[Click here to delete this process.](#)

**Throughput**

	Annual Throughput
<a href="#">Open</a>	555.0 1000 Amp-hr

**Criteria Emissions (lbs)**

	Pollutant	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
<a href="#">Open</a>	PM	0.0097	lbs / 1000 Amp-hr	No	AQMD default	0.99970	0.00

[Add New](#)

**Toxic (TAC/ODC) Emissions (lbs)**

	TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
<a href="#">Add New</a>								

**Other Process Emissions Process List Overview**

[Add New](#)

- In the **Toxic (TAC/ODC) Emissions**, click **“Add New”**

## Next Window (“Open Toxic(TAC/ODC) Emission Information – Other Processes”)

The screenshot displays the AQMD AER (1.0.0.201) software interface. The main window shows a table of processes with columns for AER Device ID, Permit Device ID, A/N, Process ID, Rule #, and Activity. A dialog box titled "Open Toxic (TAC/ODC) Emission Information - Other Processes" is open, showing the following fields:

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
ES36	D22	S37024	P1	1469	Metals and Alloys : Finishes : Chromium Plating : Decorative Chromium - Electroplating Tank

Annual Throughput: 555.0 1000 Amp-hr

TAC/ODC Toxic Pollutants / Ozone Depleting Compounds

Pollutant: 13 - Chromium, hexavalent (and compounds)

TAC Group: 13 - Chromium, hexavalent (and compounds)

CAS # (Pollutant): 18540299 - Chromium, hexavalent (and compounds)

Emission Factor (EF): 9.70000e-3 lbs/1000 Amp-hr

Controlled EF value (mark checkbox if EF listed represents EF determined after control)

Overall Control Efficiency: 0.99970

Emission Factor Comment: emissions are controlled with 2-stage mist eliminator and HEPA filters.

Emission Factor Data Source: AQMD default

Emissions: 1.615e-3 lbs

Buttons: Save, Cancel

- **Pollutant:** Select applicable toxic compound from the drop-down list.
- **Emission Factor:** Default uncontrolled "Toxic Metal" emission factors for various plating processes are available in [Table 1 in the Help and Support Default Emission Factors](#). (For this example: From Table 1: emission factor for uncontrolled hexavalent chromium plating = 0.0097)
- **Controlled EF value checkbox:** Leave unchecked if uncontrolled default emission factor was used above.
- **Overall Control Efficiency:** Enter in decimal format. (Example 99.97% = enter as 0.9997).

[Table 3](#) provides efficiencies for various control methods.

As stated earlier, the overall control efficiency cannot exceed the HEPA control efficiency of 99.97%.

[Table 2](#) provides emission factors for Certified Wetting-Agent Chemical Fume Suppressants, Companies, and Usage Restrictions for Hexavalent Chromium Electroplating and Chromic Acid Anodizing Operations.

- **Emission Factor Comment:** Provide comment (if any) [For this example: Emissions are controlled with 2-stage mist eliminators and HEPA filters].
- **Emission Factor Data Source:** Select source from drop down list. (Example : AQMD Default)
- Click “**Save**” button.

**Next Window: The completed Process P1 worksheet.**

Facility ID: 999112

**Annual Throughput**

Open	555.0 1000 Amp-hr
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**Criteria Emissions (lbs)**

Pollutant	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
Open	PM	0.0200 lbs / 1000 Amp-hr	No	AQMD default	0.99970	0.00

**Toxic (TAC/ODC) Emissions (lbs)**

TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
Open	Chromium, hexavalent (and compounds)	18540299	9.70000e-3 lbs / 1000 Amp-hr	No	AQMD default	0.99970	1.615e-3

**Other Process Emissions Process List Overview**

AER Device ID	Permit Device ID	A/N	Process ID	Status	Activity	Throughput	Units
Open	E936	D22	537024	P1	Work in progress	Metals and Alloys - Finishes - Chromium Plating - Decorative Chromium - Electroplating Tank	555.00 1000 Amp-hr

Navigation menu items: Facility Information, Build Reporting Structure, Combustion Fuels, Emission Sources (ES), Report Process/Emissions, Other Processes, Summaries, Data Validation, Print Facility Report, Report Submission.

- Click on **Summaries** from the menu on the left.

**Next Worksheet: (“Summaries”)**

South Coast Air Quality Management District

Facility ID: 999112

**Summaries**

This section allows you to review the resulting emissions from your facility's permitted and non-permitted emission sources. Printable summary pages will automatically be generated to show the total calculated emissions. This section also includes detailed report on all fees and amount due.

- Criteria Pollutants Summary OPEN
- Toxic (TAC/ODC) Pollutants Summary OPEN
- Fees OPEN

Navigation menu items: Facility Information, Build Reporting Structure, Combustion Fuels, Emission Sources (ES), Report Process/Emissions, Summaries, Data Validation, Print Facility Report, Report Submission.

- Click on **Toxic (TAC/ODC) Pollutants Summary**

**Next Worksheet: (“TAC/ODC Pollutant Summary”)**

Summary (1.0.0.201) - Windows Internet Explorer provided by South Coast A.Q.M.D.

http://aqmd-aer.dyndns.org/Summary/999112/2012?t=TAC

Facility ID: 999112 - ABC - Reporting period: 2012

**TAC/ODC Pollutants Summary**

Toxic Air Contaminants (TAC) / Ozone Depleting Compounds (ODC) Emissions and Fees Summary

TAC Group	TAC / ODC	Reference	Annual Emissions (lbs)	Emissions Subject to Fee (lbs)	Fee Rates (\$/lbs)	Fee Due
32	Ammonia					
1	Asbestos					
2	Benzene					
3	Beryllium					
4	Butadiene [1,3]					
5	Cadmium					
6	Carbon tetrachloride					
7	Chlorinated dioxins and dibenzofurans					
8	1,4-Dioxane					
9	Ethylene dibromide {1,2-Dibromoethane}					
10	Ethylene dichloride {1,2-Dichloroethane}					
11	Ethylene oxide					
12	Formaldehyde					
13	Chromium, hexavalent (and compounds)	Reference	1.615E-3	0	7.64	0.00
14	Arsenic and Compounds (inorganic)					

- Toxic Emissions (For this example, hexavalent chromium emission (and fee due, if any), is shown on line #13.