

Attachment 2

Proposed 15-Day Changes and Corrections to the Initial Statement of Reasons for the Proposed Amendments to the Airborne Toxic Control Measure for Chromium Electroplating and Chromic Acid Anodizing Operations

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I. Introduction

This attachment describes 15-day changes to the Initial Statement of Reasons (ISOR) and Appendix B of the ISOR for the Proposed Amendments to the Airborne Toxic Control Measure for Chromium Electroplating and Chromic Acid Anodizing Operations (Proposed Amendments) since CARB staff released the Proposed Amendments and the ISOR on November 29, 2022. This attachment also includes a discussion of the emission reduction and cost impacts due to the proposed 15-day changes to the regulatory text.

II. Summary of the Proposed 15-Day Changes

The 15-day changes include corrections to the emission inventory data in Appendix B of the ISOR and corrections to the emission values from Appendix B that are reflected in the ISOR. The 15-day changes also correct the cost impact evaluation in the ISOR and update the number of chrome plating facilities located in disadvantaged communities and the distances between chrome plating facilities and nearby sensitive receptors. Additionally, staff are adding in an analysis of the emission impacts and cost impacts related to the 15-day changes to the Proposed Amendments.

A. Corrections to the Emission Inventory Data in Appendix B of the ISOR

Staff is replacing Table 1 of Appendix B of the ISOR with the corrected Table 1 below. Table 1 provides a summary of the emissions data for chrome plating facilities in California. The entire table was replaced because a transcription and sorting error resulted in incorrect numbers being reflected in the following columns: Permitted Annual Throughput (amp-hrs)(Reported), Permitted Emissions Based on Source Tested Emission Factors (lb/year) (Calculated), and 2019 Emissions Based on Source Tested Emission Factors (lb/year) (Calculated). Additionally, the footnotes have been revised to correct grammar and to improve clarity and formatting.

Table 1. Summary of Emissions Data for Chrome Plating Facilities in California

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
South Coast AQMD	Anodizing	365,000	14,425	0.0015	0.00121	0.00005	2.90E-08	2.33E-08	9.22E-10
South Coast AQMD	Anodizing	5,000,000	104,168	0.0015	0.01653	0.00034	2.90E-08	3.20E-07	6.66E-09
South Coast AQMD	Anodizing	1,150,000	655,289	0.0015	0.00380	0.00217	2.90E-08	7.35E-08	4.19E-08
South Coast AQMD	Anodizing	50,000	1,744	0.0015	0.00017	0.00001	2.90E-08	3.20E-09	1.12E-10
South Coast AQMD	Anodizing	13,440,000	216,966	0.0015	0.04444	0.00072	2.90E-08	8.59E-07	1.39E-08
South Coast AQMD	Anodizing	49,995	43,683	0.01	0.00110	0.00096	2.90E-08	3.20E-09	2.79E-09

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
South Coast AQMD	Anodizing	1,150,000	163,507	0.0015	0.00380	0.00054	2.90E-08	7.35E-08	1.05E-08
South Coast AQMD	Anodizing	200,000	74,681	0.0015	0.00066	0.00025	2.90E-08	1.28E-08	4.77E-09
South Coast AQMD	Anodizing	1,150,000	50,460	0.0015	0.00380	0.00017	2.90E-08	7.35E-08	3.23E-09
South Coast AQMD	Anodizing	50,000	2,289	0.01	0.00110	0.00005	2.90E-08	3.20E-09	1.46E-10
South Coast AQMD	Anodizing	500,000	211,911	0.0015	0.00165	0.00070	2.90E-08	3.20E-08	1.35E-08
South Coast AQMD	Anodizing	1,600,000	667,959	0.0015	0.00529	0.00221	2.90E-08	1.02E-07	4.27E-08

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
South Coast AQMD	Anodizing	9,000,000	484,349	0.0015	0.02976	0.00160	2.90E-08	5.75E-07	3.10E-08
South Coast AQMD	Anodizing	5,080	5,080	0.0015	0.00002	0.00002	2.90E-08	3.25E-10	3.25E-10
South Coast AQMD	Anodizing	757,375	36,396	0.0015	0.00250	0.00012	2.90E-08	4.84E-08	2.33E-09
South Coast AQMD	Anodizing	1,000,000	701,946	0.0015	0.00331	0.00232	2.90E-08	6.39E-08	4.49E-08
South Coast AQMD	Anodizing	1,800,000	117,689	0.0015	0.00595	0.00039	2.90E-08	1.15E-07	7.52E-09
South Coast AQMD	Anodizing	22,615	22,615	0.0015	0.00007	0.00007	2.90E-08	1.45E-09	1.45E-09

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
South Coast AQMD	Anodizing	ND ⁶	ND	0.0015	ND	ND	2.90E-08	ND	ND
South Coast AQMD	Anodizing	6,000,000	388,833	0.0015	0.01984	0.00129	2.90E-08	3.84E-07	2.49E-08
South Coast AQMD	Anodizing	1,150,000	29,378	0.0015	0.00380	0.00010	2.90E-08	7.35E-08	1.88E-09
South Coast AQMD	Anodizing	500,000	288,742	0.0015	0.00165	0.00095	2.90E-08	3.20E-08	1.85E-08
South Coast AQMD	Anodizing	50,000	23,658	0.01	0.00110	0.00052	2.90E-08	3.20E-09	1.51E-09
South Coast AQMD	Anodizing	ND	ND	0.0015	ND	ND	2.90E-08	ND	ND

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
South Coast AQMD	Anodizing	13,000,000	20,999	0.0015	0.04299	0.00007	2.90E-08	8.31E-07	1.34E-09
Ventura County APCD	Anodizing	89,900	46,678	0.0015	0.00030	0.00015	2.90E-08	5.75E-09	2.98E-09
Bay Area AQMD	Decorative	50,000	15,391	0.01	0.00110	0.00034	1.00E-02	1.10E-03	3.39E-04
Bay Area AQMD	Decorative	45,500	8,423	0.01	0.00100	0.00019	1.00E-02	1.00E-03	1.86E-04
Bay Area AQMD	Decorative	20,000	16	0.01	0.00044	0.00000	1.00E-02	4.41E-04	3.53E-07
Bay Area AQMD	Decorative	50,000	4,185	0.01	0.00110	0.00009	1.00E-02	1.10E-03	9.23E-05
Feather River AQMD	Decorative	20,000	20,000	0.01	0.00044	0.00044	1.00E-02	4.41E-04	4.41E-04

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
Sacramento Metro AQMD	Decorative	200,000	29,378	0.0015	0.00066	0.00010	4.78E-04	2.11E-04	3.10E-05
San Diego APCD	Decorative	50,000	9,785	0.01	0.00110	0.00022	1.00E-02	1.10E-03	2.16E-04
San Diego APCD	Decorative	50,000	19,080	0.01	0.00110	0.00042	1.00E-02	1.10E-03	4.21E-04
San Diego APCD	Decorative	50,000	27,524	0.01	0.00110	0.00061	1.00E-02	1.10E-03	6.07E-04
San Joaquin Valley APCD	Decorative	10,000,000	110,821	0.01	0.22046	0.00244	1.00E-02	2.20E-01	2.44E-03
San Joaquin Valley APCD	Decorative	500,000	16,687	0.0015	0.00165	0.00006	4.78E-04	5.27E-04	1.76E-05

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
San Joaquin Valley APCD	Decorative	1,000,000	206,929	0.0015	0.00331	0.00068	4.78E-04	1.05E-03	2.18E-04
San Joaquin Valley APCD	Decorative	20,000	11,946	0.01	0.00044	0.00026	1.00E-02	4.41E-04	2.63E-04
San Joaquin Valley APCD	Decorative	20,000	12,619	0.01	0.00044	0.00028	1.00E-02	4.41E-04	2.78E-04
San Joaquin Valley APCD	Decorative	16,000	6,340	0.01	0.00035	0.00014	1.00E-02	3.53E-04	1.40E-04
South Coast AQMD	Decorative	89,856,000	1,485,252	0.0015	0.29714	0.00491	4.78E-04	9.47E-02	1.56E-03

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
South Coast AQMD	Decorative	500,000	500,000	0.01	0.01102	0.01102	1.00E-02	1.10E-02	1.10E-02
South Coast AQMD	Decorative	748,800	748,800	0.0015	0.00248	0.00248	4.78E-04	7.89E-04	7.89E-04
South Coast AQMD	Decorative	500,000	45,806	0.01	0.01102	0.00101	1.00E-02	1.10E-02	1.01E-03
South Coast AQMD	Decorative	20,000	23,320	0.01	0.00044	0.00051	1.00E-02	4.41E-04	5.14E-04
South Coast AQMD	Decorative	80,000	404,678	0.0015	0.00026	0.00134	4.78E-04	8.43E-05	4.26E-04
South Coast AQMD	Decorative	1,600,000	250,952	0.0015	0.00529	0.00083	4.78E-04	1.69E-03	2.64E-04

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
South Coast AQMD	Decorative	50,000	8	0.01	0.00110	1.76E-07	1.00E-02	1.10E-03	1.76E-07
South Coast AQMD	Decorative	1,250,000	41,237	0.0015	0.00413	0.00014	4.78E-04	1.32E-03	4.34E-05
South Coast AQMD	Decorative	15,000,000	982,191	0.0015	0.04960	0.00325	4.78E-04	1.58E-02	1.03E-03
South Coast AQMD	Decorative	1,150,000	639,660	0.01	0.02535	0.01410	1.00E-02	2.54E-02	1.41E-02
South Coast AQMD	Decorative	6,266,213	122,835	0.0015	0.02072	0.00041	4.78E-04	6.60E-03	1.29E-04
South Coast AQMD	Decorative	1,000,000	1,000,000	0.0015	0.00331	0.00331	4.78E-04	1.05E-03	1.05E-03

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
South Coast AQMD	Decorative	5,000,000	98,939	0.0015	0.01653	0.00033	4.78E-04	5.27E-03	1.04E-04
South Coast AQMD	Decorative	15,000,000	26,347	0.0015	0.04960	0.00009	4.78E-04	1.58E-02	2.78E-05
South Coast AQMD	Decorative	200,000	20,671	0.01	0.00441	0.00046	1.00E-02	4.41E-03	4.56E-04
South Coast AQMD	Decorative	2,149,056	433,211	0.0015	0.00711	0.00143	4.78E-04	2.26E-03	4.56E-04
South Coast AQMD	Decorative	17,628	17,628	0.01	0.00039	0.00039	1.00E-02	3.89E-04	3.89E-04
South Coast AQMD	Decorative	15,724,000	1,304,607	0.0015	0.05200	0.00431	4.78E-04	1.66E-02	1.37E-03

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
South Coast AQMD	Decorative	41,328,000	41,328,000	0.0015	0.13667	0.13667	4.78E-04	4.35E-02	4.35E-02
South Coast AQMD	Decorative	716,040	108,398	0.0015	0.00237	0.00036	4.78E-04	7.54E-04	1.14E-04
South Coast AQMD	Decorative	26,000,000	223,010	0.0015	0.08598	0.00074	4.78E-04	2.74E-02	2.35E-04
South Coast AQMD	Decorative	20,000	15,196	0.01	0.00044	0.00034	1.00E-02	4.41E-04	3.35E-04
South Coast AQMD	Decorative	50,000	3,700	0.01	0.00110	0.00008	1.00E-02	1.10E-03	8.16E-05
South Coast AQMD	Decorative	20,000	20,000	0.0015	0.00007	0.00007	4.78E-04	2.11E-05	2.11E-05

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
South Coast AQMD	Decorative	20,000	3,512	0.0015	0.00007	0.00001	4.78E-04	2.11E-05	3.70E-06
South Coast AQMD	Decorative	12,480,000	558,936	0.0015	0.04127	0.00185	4.78E-04	1.31E-02	5.89E-04
South Coast AQMD	Decorative	12,480,000	937,659	0.0015	0.04127	0.00310	4.78E-04	1.31E-02	9.88E-04
South Coast AQMD	Decorative	50,000	27,248	0.01	0.00110	0.00060	1.00E-02	1.10E-03	6.01E-04
South Coast AQMD	Decorative	53,800	53,800	0.01	0.00119	0.00119	1.00E-02	1.19E-03	1.19E-03
South Coast AQMD	Decorative	365,000	5,918	0.0015	0.00121	0.00002	4.78E-04	3.85E-04	6.23E-06

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
South Coast AQMD	Decorative	500,000	19,230	0.0015	0.00165	0.00006	4.78E-04	5.27E-04	2.03E-05
South Coast AQMD	Decorative	60,000,000	3,729,155	0.0015	0.19841	0.01233	4.78E-04	6.32E-02	3.93E-03
South Coast AQMD	Decorative	20,000	2,313	0.0015	0.00007	0.00001	4.78E-04	2.11E-05	2.44E-06
South Coast AQMD	Decorative	20,000	3,011	0.01	0.00044	0.00007	1.00E-02	4.41E-04	6.64E-05
South Coast AQMD	Decorative	50,000	20,539	0.01	0.00110	0.00045	1.00E-02	1.10E-03	4.53E-04
Bay Area AQMD	Hard	44,000,000	12,710,000	0.0015	0.14550	0.04203	5.88E-05	5.71E-03	1.65E-03

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
Bay Area AQMD	Hard	38,600,000	10,380,000	0.0015	0.12765	0.03433	5.88E-05	5.01E-03	1.35E-03
Bay Area AQMD	Hard	35,000,000	5,560,000	0.0015	0.11574	0.01839	5.88E-05	4.54E-03	7.21E-04
Bay Area AQMD	Hard	3,000,000	203,876	0.0015	0.00992	0.00067	5.88E-05	3.89E-04	2.64E-05
Bay Area AQMD	Hard	60,000,000	8,838,733	0.0015	0.19841	0.02923	5.88E-05	7.78E-03	1.15E-03
Bay Area AQMD	Hard	114,500,000	5,450,000	0.0015	0.37864	0.01802	5.88E-05	1.48E-02	7.07E-04
Sacramen to Metro AQMD	Hard	131,660,000	3,774,586	0.0015	0.43539	0.01248	5.88E-05	1.71E-02	4.89E-04
San Diego APCD	Hard	780,258	780,258	0.0015	0.00258	0.00258	5.88E-05	1.01E-04	1.01E-04

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
San Joaquin Valley APCD	Hard	12,000,000	4,766,382	0.0015	0.03968	0.01576	4.10E-06	1.08E-04	4.31E-05
San Joaquin Valley APCD	Hard	5,383,523	5,383,523	0.0015	0.01780	0.01780	5.88E-05	6.98E-04	6.98E-04
San Joaquin Valley APCD	Hard	9,984,000	2,097,849	0.0015	0.03302	0.00694	5.88E-05	1.29E-03	2.72E-04
South Coast AQMD	Hard	15,000,000	3,192,820	0.0015	0.04960	0.01056	5.88E-05	1.95E-03	4.14E-04
South Coast AQMD	Hard	34,680,000	10,416,765	0.0015	0.11468	0.03445	5.88E-05	4.50E-03	1.35E-03

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
South Coast AQMD	Hard	500,000	121,852	0.0015	0.00165	0.00040	5.88E-05	6.48E-05	1.58E-05
South Coast AQMD	Hard	15,000,000	4,071,964	0.0015	0.04960	0.01347	5.88E-05	1.95E-03	5.28E-04
South Coast AQMD	Hard	ND	61,239,208	0.0015	ND	0.20251	5.88E-05	ND	7.94E-03
South Coast AQMD	Hard	254,000,000	57,942,267	0.0015	0.83995	0.19161	5.88E-05	3.29E-02	7.51E-03
South Coast AQMD	Hard	3,233,618	1,418,916	0.0015	0.01069	0.00469	5.88E-05	4.19E-04	1.84E-04

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
South Coast AQMD	Hard	148,920,000	31,114,514	0.0015	0.49246	0.10289	5.88E-05	1.93E-02	4.03E-03
South Coast AQMD	Hard	15,000,000	7,404,590	0.0015	0.04960	0.02449	5.88E-05	1.95E-03	9.60E-04
South Coast AQMD	Hard	ND	78,427,925	0.0015	ND	0.25936	5.88E-05	ND	1.02E-02
South Coast AQMD	Hard	242,850	408,645	0.0015	0.00080	0.00135	5.88E-05	3.15E-05	5.30E-05
South Coast AQMD	Hard	104,208,000	6,298,513	0.0015	0.34461	0.02083	5.88E-05	1.35E-02	8.17E-04

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
South Coast AQMD	Hard	60,000,000	47,443,154	0.0015	0.19841	0.15689	5.88E-05	7.78E-03	6.15E-03
South Coast AQMD	Hard	131,040,000	10,195,736	0.0015	0.43334	0.03372	5.88E-05	1.70E-02	1.32E-03
South Coast AQMD	Hard	30,000,000	30,000,000	0.0015	0.09921	0.09921	5.88E-05	3.89E-03	3.89E-03
South Coast AQMD	Hard	29,883,290	29,883,290	0.0015	0.09882	0.09882	5.88E-05	3.88E-03	3.88E-03
South Coast AQMD	Hard	125,000,000	14,752,086	0.0015	0.41336	0.04878	5.88E-05	1.62E-02	1.91E-03

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
South Coast AQMD	Hard	43,171,712	1,021,546	0.0015	0.14276	0.00338	5.88E-05	5.60E-03	1.32E-04
South Coast AQMD	Hard	77,859,792	9,523,331	0.0015	0.25747	0.03149	5.88E-05	1.01E-02	1.23E-03
South Coast AQMD	Hard	18,695,697	18,695,427	0.0015	0.06182	0.06182	5.88E-05	2.42E-03	2.42E-03
South Coast AQMD	Hard	567,500,000	14,882,488	0.0015	1.87667	0.04922	5.88E-05	7.36E-02	1.93E-03
South Coast AQMD	Hard	2,000,000	13,331,915	0.0015	0.00661	0.04409	5.88E-05	2.59E-04	1.73E-03

District	Facility Type	Permitted Annual Throughput (amp-hrs) (Reported)	2019 Facility Reported Throughput (amp-hrs) (Reported)	2007 ATCM Emission Factor	Potential to Emit (lb) ¹	2019 Emissions based on 2007 ATCM Emission Factors (lb/year) (Calculated) ²	Average Source Tested Emission Rate (mg/amp-hr) (Reported) ³	Permitted Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁴	2019 Emissions based on Source Tested Emission Factors (lb/year) (Calculated) ⁵
South Coast AQMD	Hard	363,100,000	107,434,648	0.0015	1.20074	0.35528	5.88E-05	4.71E-02	1.39E-02
South Coast AQMD	Hard	115,400,000	116,476,081	0.0015	0.38162	0.38518	5.88E-05	1.50E-02	1.51E-02
South Coast AQMD	Hard	3,500,000	10,876,146	0.0015	0.01157	0.03597	5.88E-05	4.54E-04	1.41E-03
Total		2,993,298,742	806,597,370		10.15	2.7		0.95	0.19

¹ When the numbers for Permitted Annual Throughput (amp-hrs) were not available from the District, staff used the 2019 Facility Reported Throughput (amp-hrs) to calculate the Potential to Emit (lbs).

² 2019 Emission based on the 2007 ATCM limit = (2019 Total Amp-hr) x (2007 ATCM Emission Rate Limit (mg/amp-hr)) x (Conversion Factor (mg to lb)).

³ Source testing numbers in this column are calculated based on the source test results shown in Table 2.

⁴ Permitted Emissions Based on Source Testing = (Permitted Amp-hr) x (Source Testing Emission (mg/amp-hr)) x (Conversion Factor (mg to lb)).

⁵ 2019 Emissions Based on Source Testing = (2019 Total Amp-hr) x (Source Testing Emission (mg/amp-hr)) x (Conversion Factor (mg to lb)).

⁶ ND means no data was provided.

B. Updates to the ISOR

This section provides an overview of the 15-day changes made to the ISOR for the Proposed Amendments. First, staff is correcting values included in Table III.1, Table VI.1, and the Emission Inventory narrative in Section VI.B(2)(b) to reflect the corrected emission values in Appendix B. Second, staff is updating the cost estimates and narrative in Section IX and Tables IX.7, IX.8, and IX.9 to include the costs of best management practices required by the Proposed Amendments and to update the values based on the amortization of these costs. Third, staff is updating the number of chrome plating facilities located in disadvantaged communities, as defined by Senate Bill 535 and Assembly Bill 617, and revising the distances to sensitive receptors located near chrome plating facilities.

1. Updates to Table III.1 and Table VI.1

Table III.1 in Section III of the ISOR (page 44) and Table VI.1 in Section VI (page 188) are being updated to reflect the corrected values in the emission data of Appendix B. Staff is updating all the values in columns four and five of Table III.1 and Table VI.1 to correspond to the corrected values presented in Table 1 of Appendix B. These values only consider emissions from the stack and do not include fugitive emissions.

Table III.1 Summary of Estimated Emissions based on Air District Permit Limits, the 2007 ATCM Limit and Actual Emissions from Chrome Plating Facilities Before Phase Out Date

Facility Type	Quantity	Estimated Emissions of Hexavalent Chromium – Permitted Limits ¹ (lbs/year)	Estimated Emissions of Hexavalent Chromium – 2007 ATCM Limits ² (lbs/year)	Estimated Actual Emissions of Hexavalent Chromium ³ (lbs/year)
Decorative Chrome Plating	51	1.31	0.21	0.093
Functional Chrome Plating	–	–	–	–
A) Hard Chrome Plating	36	8.64	2.47	0.096
B) Chromic Acid Anodizing	26	0.20	0.02	<0.01 ⁴
All	113	10.15	2.7	0.19

¹ Reflects District permitted throughput and the 2007 ATCM emission limits.

² Reflects facility's 2019 throughput and the 2007 ATCM emission limits.

³ Reflects 2019 throughput and source test emissions.

⁴ 2.9E-07, based on one datapoint.

Table VI.1 Summary of Estimated Hexavalent Chromium (Cr₆) from Chrome Plating Facilities Before Phase Out Date

Facility Type	Quantity	Estimated Emissions of Hexavalent Chromium – Permitted Limits ¹ (lbs/year)	Estimated Emissions of Hexavalent Chromium – 2007 ATCM Limits ² (lbs/year)	Estimated Actual Emissions of Hexavalent Chromium ³ (lbs/year)
Decorative Chrome Plating	51	1.31	0.21	0.093
Functional Chrome Plating	–	–	–	–
A) Hard Chrome Plating	36	8.64	2.47	0.096
B) Chromic Acid Anodizing	26	0.20	0.02	<0.01 ⁴
All	113	10.15	2.7	0.19

¹ Reflects District permitted throughput and the 2007 ATCM emission limits.

² Reflects facility's 2019 throughput and the 2007 ATCM emission limits.

³ Reflects 2019 throughput and source test emissions.

⁴ 2.9E-07, based on one datapoint.

2. Updates to Section VI.B.2.(b)

Staff is amending two values stated in the Emissions Inventory narrative of the ISOR Section VI.(B)2.(b) on page 187. Staff is amending the values in the bulleted list providing the estimated statewide emissions of hexavalent chromium from chrome plating facilities to reflect the corrected values in Table 1 of Appendix B discussed above. These values only consider emissions from the stack and do not include fugitive emissions.

- Staff is updating the value for the estimated statewide emissions using the 2007 ATCM emission rate and reported amp-hour data from 3.81 pounds per year to 2.7 pounds per year. This change was made because the value should correspond to the value in the 2019 Emissions based on the total value for the 2007 ATCM Emission Factors column at the bottom of the amended Table 1 in Appendix B.
 - Before: "Using the 2007 ATCM emission rate and reported amp-hour data, the estimated statewide emissions of hexavalent chromium from chrome plating facilities are 3.81 pounds per year."
 - Updated: "Using the 2007 ATCM emission rate and reported amp-hour data, the estimated statewide emissions of hexavalent chromium from chrome plating facilities are 2.7 pounds per year."
- Staff is updating the value for the estimated statewide emissions using available source test data and actual reported amp-hour data in 2019 from 2.2 pounds per year to 0.19 pounds per year. This change was made because the value should correspond to the value in Table VI.1.

- Before: “Using available source test data and actual reported amp-hour data in 2019, the estimated statewide emissions of hexavalent chromium from chrome plating facilities are 2.2 pounds per year.”
- Updated: “Using available source test data and actual reported amp-hour data in 2019, the estimated statewide emissions of hexavalent chromium from chrome plating facilities are 0.19 pounds per year.”

3. Corrections to Costs in Table IX.7, Table IX.8, and Table IX.9

The 15-day changes are correcting cost calculations included in Table IX.7, Table IX.8, and Table IX.9 in Section IX.B(2) of the ISOR, for Direct Costs on Typical Businesses. Staff is adding the costs to decorative chrome platers of implementing the best management practices required by the Proposed Amendments. Best management practices include requirements for the installation of drip trays, splash guards, barriers between buffing, grinding, and polishing areas, and other similar equipment. The update adds the cost to decorative chrome platers of implementing the best management practices required by the Proposed Amendments, which increased the estimated costs by \$5,287 for each decorative chrome plating facility located outside of South Coast AQMD’s jurisdiction. Staff assumed that facilities within South Coast AQMD will not need to incur costs to comply with the best management practices because South Coast AQMD’s Rule 1469 already required these best management practices. Therefore, the costs for best management practices apply only to facilities located outside of South Coast AQMD’s jurisdiction.

These tables do not reflect the costs for decorative chrome plating facilities that elect to comply with the alternative phase out pathway as those costs are analyzed in Section III. of this document.

The following corrections are being made to Table IX.7 (page 205):

- The total unamortized cost for all decorative chrome plating facilities in the third column increased to by \$85,023 to \$43,609,987 to account for the costs of implementing the best management practices.
- The total unamortized cost for all facilities in the last row of the third column also increased by \$85,023 to \$691,760,165 to account for the costs of implementing the best management practices.

All costs are estimated for the period of 2024 through 2043.

Table IX.1 Approximate Number of Facilities and Total Unamortized Cost by Type

Facility Type	Quantity	Total Cost Including Conversion (2024 – 2043) ¹
Decorative Chrome Plating	51	\$43,609,987
Functional Chrome Plating	-	-
A) Hard Chrome Plating	36	\$525,325,220
B) Chromic Acid Anodizing	26	\$122,824,958
Total	113	\$ 691,760,165

¹Value includes sales tax paid by the facilities.

Table IX.8 and Table IX.9 are being updated to account for the costs to decorative platers to implement the best management practices. This cost is amortized over three years, which is the amount of time that the best management practices will be in effect prior to the phase out of hexavalent chromium for decorative platers who do not elect to comply with the alternative phase out pathway. The costs impact for decorative platers who elect to comply with the alternative phase out pathway are included in the cost impacts presented in Section III.B. of this document.

Table IX.8 is also being updated for functional chrome plating facilities to correct the year for best management practices from 2025 to 2024, because the best management practices become effective on July 1, 2024. The amortization period for best management practices remains 15 years for functional chrome plating facilities. Additional updates were made based on corrections to the amortization assumptions for certain costs. Amortization for source testing was changed from 15 years to two years because source tests are performed every two years. Amortization for building enclosures and add on controls were changed to 14 years from 15 years to reflect the amount of time functional chrome plating facilities would have to utilize the equipment between the effective date of the building enclosure requirements on January 1, 2026, to the January 1, 2039, phase out of hexavalent chromium. These changes to amortization assumptions result in higher annual costs in the early years of the assessment but lower overall costs over the lifetime of the regulation because of decreased interest payments.

The following changes are being made to Table IX.8 (page 206):

- The values in the “Decorative Facilities Fixed Cost” column increased to account for the cost of implementing best management practices to decorative facilities outside of South Coast AQMD’s jurisdiction. The total direct fixed costs, after tax and amortization, for all decorative chrome plating facilities increased by \$93,664 to \$27,261,699 because the values in the “Decorative Facilities Fixed Cost” column increased by \$31,221 for each year from 2024 to 2027 due to amortization over three years.
- The values in the “Hard Facilities Fixed Cost” column increased in the initial eleven years of the Proposed Amendments and then decreased in subsequent years, resulting in a decrease of \$457,143 to \$97,800,902 for total direct fixed costs. These changes are due to changes in the amortization periods for source testing, building enclosures, and add-on

controls, and correction of the effective year (from 2025 to 2024) of best management practices.

- The values in the “Anodizing Facilities Fixed Cost” column increased in the initial eleven years of the regulation and then decreased in subsequent years, resulting in a decrease of \$296,492 to \$68,957,021 for total direct fixed costs. These changes are due to changes in the amortization periods for source testing, building enclosures, and add-on controls, and correction of the effective year (from 2025 to 2024) of best management practices.

Table IX.2 Summary of Direct Costs after Tax and Amortization for All Facilities, by Facility Type and by Year

Year	Decorative Facilities Fixed Cost ¹ (\$)	Decorative Facilities Ongoing Cost ² (\$)	Hard Facilities Fixed Cost ¹ (\$)	Hard Facilities Ongoing Cost ² (\$)	Anodizing Facilities Fixed Cost ¹ (\$)	Anodizing Facilities Ongoing Cost ² (\$)	Total (\$)
2024	31,221	0	6,007	0	546	0	37,774
2025	31,221	0	627,298	0	264,815	0	923,334
2026	3,658,697	1,340,188	510,071	0	254,158	0	5,763,113
2027	1,681,469	1,340,196	510,071	0	254,158	0	3,785,894
2028	1,681,469	1,340,208	510,071	0	254,158	0	3,785,905
2029	1,681,469	1,340,220	510,071	0	254,158	0	3,785,917
2030	1,681,469	1,340,232	510,071	0	254,158	0	3,785,929
2031	1,681,469	1,340,245	510,071	0	254,158	0	3,785,942
2032	1,681,469	1,340,260	510,071	0	254,158	0	3,785,957
2033	1,681,469	1,340,276	510,071	0	254,158	0	3,785,974
2034	1,681,469	1,340,295	510,071	0	254,158	0	3,785,992
2035	1,681,469	1,340,315	510,071	0	254,158	0	3,786,013
2036	1,681,469	1,340,338	510,071	0	254,158	0	3,786,035
2037	1,681,469	1,340,363	510,071	0	254,158	0	3,786,060
2038	1,681,469	1,340,389	17,569,227	60,702,184	12,574,660	1,281,011	95,148,940
2039	1,681,469	1,340,416	14,695,505	60,703,427	10,613,420	1,281,037	90,315,273
2040	1,681,469	1,340,444	14,695,505	60,704,687	10,613,420	1,281,064	90,316,588
2041	0	1,340,472	14,695,505	60,705,972	10,613,420	1,281,091	88,636,460
2042	0	1,340,501	14,695,505	60,707,267	10,613,420	1,281,118	88,637,811
2043	0	1,340,531	14,695,505	60,708,602	10,613,420	1,281,146	88,639,203
Total³	27,261,699	24,125,889	97,800,902	364,232,138	68,957,021	7,686,468	590,064,117

¹ Fixed cost in this table includes tax and amortization.

² Ongoing cost in this table includes tax.

³ The total is slightly different from the sum of the values (2024 to 2043) due to rounding.

Table IX.9 (page 207) is also being updated to include the costs to decorative chrome plating facilities of implementing the best management practices, to add a row for costs incurred in 2024, and to update values based on the corrected amortization assumptions.

- The total average direct cost after tax and amortization for each decorative chrome plating facilities increased by \$1,837 (\$6,244 for facilities outside of and \$0 for facilities inside of the South Coast AQMD's jurisdiction) to \$1,007,600. This change is reflected in the increase of \$612 for each year from 2024 to 2026 in the "Decorative Chrome Plating Facility" column caused by the addition of the costs for decorative chrome platers to implement the best management practices.
- The values in the "Hard Chrome Plating Facility" column increased in the initial 11 years of the Proposed Amendments and then decreased in subsequent years, resulting in a decrease of \$12,699 to \$12,834,251 for total direct costs. These changes are due to changes in the amortization periods for source testing, building enclosures, and add-on controls, and correction of the effective year (from 2025 to 2024) of best management practices.
- The values in the "Chromic Acid Anodizing Facility" column increased in the initial eleven years of the regulation and then decreased in subsequent years, resulting in a decrease of \$11,403 to \$2,947,827 for total direct costs. These changes are due to changes in the amortization periods for source testing, building enclosures, and add-on controls, and correction of the effective year (from 2025 to 2024) of best management practices.

Table IX.3 Average Per Facility Total Direct Cost after Tax and Amortization by Year

Year	Decorative Chrome Plating Facility (\$)	Hard Chrome Plating Facility (\$)	Chromic Acid Anodizing Facility (\$)
2024	612	167	21
2025	612	17,425	10,185
2026	98,017	14,169	9,775
2027	59,248	14,169	9,775
2028	59,249	14,169	9,775
2029	59,249	14,169	9,775
2030	59,249	14,169	9,775
2031	59,249	14,169	9,775
2032	59,250	14,169	9,775
2033	59,250	14,169	9,775
2034	59,250	14,169	9,775
2035	59,251	14,169	9,775
2036	59,251	14,169	9,775
2037	59,252	14,169	9,775
2038	59,252	2,174,206	532,910
2039	59,253	2,094,415	457,479
2040	59,253	2,094,450	457,480
2041	26,284	2,094,485	457,481
2042	26,284	2,094,521	457,482
2043	26,285	2,094,559	457,483
Total	1,007,600	12,834,251	2,947,827

4. Updates to Section IX.B.2.

Staff is amending two sentences that discussed amortization on page 205 and page 206 of the ISOR. Staff is amending these sentences to update the change in amortization periods as discussed above in section 3. The change in amortization periods were made to correspond to the equipment’s useful life.

- Staff is updating the sentence on page 205 that describes the amortization of fixed cost for all the facilities.
 - Before: “Table IX.8 summarizes the direct cost for all facilities in each of the three facility types including sales tax and smooths the direct cost over the years by amortizing fixed cost for 15 years at 5 percent.”

- Updated: “Table IX.8 summarizes the direct cost for all facilities in each of the three facility types, including sales tax, and smooths the direct cost over the years by amortizing each fixed cost at 5 percent for each item’s useful life. Specifically, the cost of best management practices is amortized at 5 percent for 3 years for decorative facilities and 15 years for functional facilities to reflect the amount of time prior to the applicable phase out date. The costs of building enclosure and add-on controls are amortized at 5 percent for 14 years for functional facilities to reflect the amount of time between the applicability date of these requirements and the phase out date. The cost of source testing is amortized at 5 percent for 2 years for functional facilities because source tests are required every two years. The conversion cost to trivalent chromium is amortized at 5 percent for 15 years.”
- Staff is updating the sentence on page 206 that describes the amortization of fixed cost for one average facility.
 - Before: “Table IX.9 summarizes the average direct cost for one facility including sales tax and after amortizing fixed cost for 15 years at 5 percent.”
 - Updated: “Table IX.9 summarizes the average direct cost for one facility, including sales tax, after amortizing fixed cost for each item’s useful life. Specifically, the cost of best management practices is amortized at 5 percent for 3 years for decorative facilities and 15 years for functional facilities to reflect the amount of time prior to the applicable phase out date. The costs of building enclosure and add-on controls are amortized at 5 percent for 14 years for functional facilities to reflect the amount of time between the applicability date of these requirements and the phase out date. The cost of source testing is amortized at 5 percent for 2 years for functional facilities because source tests are required every two years. The conversion cost to trivalent chromium is amortized at 5 percent for 15 years.”

5. Updates to Number of Facilities Located in Disadvantaged Communities

Staff updated Table ES.2 and Table ES.3 of the ISOR (pages 4 and 5) to include the number of trivalent chromium plating facilities located in California and located in disadvantaged communities, as defined by Senate Bill 535 and Assembly Bill 617.

Table ES.2 was updated to add two rows depicting the number of trivalent chromium plating facilities and the total number of chrome plating facilities located in California and located in disadvantaged communities.

Table ES.1 Chrome Plating Facilities in California Located in Disadvantaged Communities

Facility Type	Number of Facilities in California	Number of Facilities in Disadvantaged Communities (SB 535 and AB 617)
Decorative Plating	51	38
Hard Plating	36	26
Chromic Acid Anodizing	26	19
Trivalent Chromium Plating	4	2
Total	117	85

Staff updated Table ES.3 to add the last two columns depicting the number of trivalent chromium plating facilities located in California and located in disadvantaged communities in each District. Staff also added the last row to depict the total number of chrome plating facilities in California and all chrome plating facilities located in disadvantaged communities.

Table ES.2 Chrome Plating Facilities Located in Disadvantaged Communities by District

District	Decorative Facilities (#)	Decorative Facilities in Disadvantaged Communities (#)	Hard Plating Facilities (#)	Hard Plating Facilities in Disadvantaged Communities (#)	Chromic Acid Anodizing Facilities (#)	Chromic Acid Anodizing Facilities in Disadvantaged Communities (#)	Trivalent Chromium Facilities (#)	Trivalent Chromium Facilities in Disadvantaged Communities (#)
South Coast AQMD	36	31	25	17	25	18	2	1
Bay Area AQMD	4	2	6	5	0	0	0	0
San Joaquin Valley	6	4	3	3	0	0	1	0
Sacramento Metro AQMD	1	1	1	1	0	0	1	1
Ventura County APCD	0	0	0	0	1	1	0	0
Total	47	38	35	26	26	19	4	2

6. Corrections to Distances to Nearby Sensitive Receptors

Since the ISOR was released and in response to a comment made during the January 27, 2023, Board Hearing, CARB staff reassessed the distance from chrome plating facilities that use hexavalent chromium to nearby sensitive receptors. As a result of this new assessment, the percentages reflecting the number of chrome plating facilities near sensitive receptors have changed in the ISOR as described below.

a) Updates to Executive Summary

Staff is updating the value provided in the following sentence on page 3 of the Executive Summary of the ISOR from nine percent to 15 percent.

- Before: "Approximately nine percent of all chrome plating facilities are located within approximately 300 meters of a school."
- Updated: "Approximately 15 percent of all chrome plating facilities are located within approximately 300 meters of a school."

b) Updates to Section II.D

Staff is updating the values provided in the following sentences on page 36 of the ISOR from nine percent to 15 percent, from 30 percent to 34 percent, and from 10 percent to 15 percent.

- Before: "Chrome plating facilities are often located near sensitive receptors such as schools, homes, and nursing and care facilities. Using the Google Earth® tool, staff determined that nine percent of chrome plating facilities in California are located in close proximity (less than approximately 300 meters) of schools. Nearly 30 percent of chrome plating facilities have sensitive receptors located within 100 meters. Approximately 10 percent of chrome plating facilities have sensitive receptors located within 20 meters."
- Updated: "Chrome plating facilities are often located near sensitive receptors such as schools, homes, and nursing and care facilities. Using the Google Earth® tool, staff determined that 15 percent of chrome plating facilities in California are located in close proximity (less than approximately 300 meters) of schools. Nearly 34 percent of chrome plating facilities have sensitive receptors located within 100 meters. Approximately 15 percent of chrome plating facilities have sensitive receptors located within 20 meters."

c) Updates to Section IV.A(5)

Staff is updating the values provided in the following sentences on page 88 of the ISOR from nine percent to 15 percent and from 10 percent to 15 percent.

- Before: "Approximately nine percent of all chrome plating facilities are located within approximately 300 meters of a school (see Section (A) of the Executive Summary). The data also show that chrome plating facilities are often located in low-income communities and communities of color. As discussed above, approximately 10 percent of chrome plating facilities are located within 20 meters of sensitive receptor(s) (see Section II.(D))."
- Updated: "Approximately 15 percent of all chrome plating facilities are located within approximately 300 meters of a school (see Section (A) of the Executive Summary). The data also show that chrome plating facilities are often located in low-income communities and communities of color. As discussed above, approximately 15 percent of chrome plating facilities are located within 20 meters of sensitive receptor(s) (see Section II.(D))."

d) Updates to Section V.B

Staff is updating the values provided in the following sentences on page 178 of the ISOR from nine percent to 15 percent.

- Before: "Using Google Earth®, staff estimated that approximately nine percent of chrome plating facilities in California are located in close proximity (approximately within 300 meters) to schools."
- Updated: "Using Google Earth®, staff estimated that approximately 15 percent of chrome plating facilities in California are located in close proximity (approximately within 300 meters) to schools."

e) Updates to Section VI.B(2)(b)

Staff is updating the values provided in the following sentences on page 187 of the ISOR from 30 percent to 34 percent and 10 percent to 15 percent.

- Before: "The more important factor to consider is not total statewide emissions, but the proximity of emitting sources to receptors in the communities where they are located. Nearly 30 percent of chrome plating facilities have residential receptors located within 100 meters. Approximately 10 percent of chrome plating facilities have receptors located within 20 meters."
- Updated: "The more important factor to consider is not total statewide emissions, but the proximity of emitting sources to receptors in the communities where they are located. Nearly 34 percent of chrome plating

facilities have residential receptors located within 100 meters. Approximately 15 percent of chrome plating facilities have receptors located within 20 meters.”

f) Updates to Section VIII.B

Staff is updating the values provided in the following sentences on page 195 of the ISOR from nine percent to 15 percent.

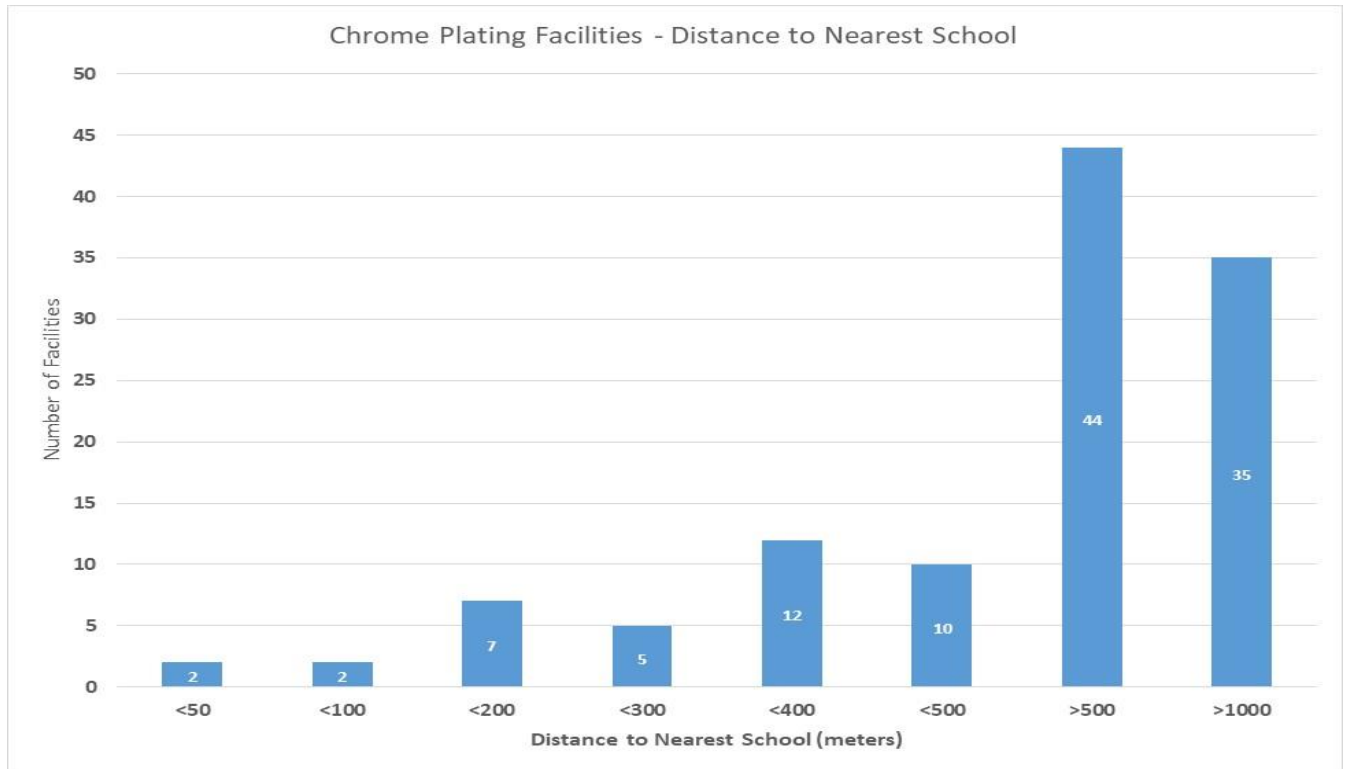
- Before: “Chrome plating facilities are often located near sensitive receptors such as schools, day care centers, homes, and nursing homes. Using the Google Earth® tool, staff estimated that nine percent of chrome plating facilities in California are located in close proximity (under about 300 meters) to schools.”
- Updated: “Chrome plating facilities are often located near sensitive receptors such as schools, day care centers, homes, and nursing homes. Using the Google Earth® tool, staff estimated that 15 percent of chrome plating facilities in California are located in close proximity (under about 300 meters) to schools.”

g) Updates to Section VIII.B, Figure VIII.1

Staff is updating the values provided in “Figure VIII.1 Chrome Plating Facilities and Distance to Nearest School” (page 196) based on a new assessment of distances between chrome plating facilities using hexavalent chromium and sensitive receptors, such as schools, as follows:

- The number of facilities located between 100 to 200 meters changed from 3 to 7;
- The number of facilities located between 200 to 300 meters changed from 6 to 5;
- The number of facilities between 400 to 500 meters changed from 7 to 10;
- The number of facilities located at more than 500 meters and less than 1,000 meters changed from 35 to 44; and
- The number of facilities located at more than 1,000 meters changed from 46 to 35.

Figure VIII.1 Chrome Plating Facilities and Distance to Nearest School



¹ The distance on the x-axis is not inclusive of the previous distance bin. For example, <100 refers to distances that are greater than 50 meters and less than 100 meters.

III. Impacts of the Proposed 15-Day Changes

In response to Board direction, staff has provided decorative chrome plating facilities with an optional alternative phase out pathway that would allow them to continue to use hexavalent chromium for three years beyond the phase out date in the original proposal. Facilities that elect to comply with the alternative phase out pathway are required to make this determination prior to January 1, 2025, must comply with building enclosure requirements starting on January 1, 2026, and must stop using hexavalent chromium for decorative chrome plating by January 1, 2030. Decorative chrome plating facilities that do not elect to comply with the alternative phase out pathway must stop using hexavalent chromium for decorative chrome plating operations by January 1, 2027, as previously required by the Proposed Amendments.

The following discussion presents a new analysis that provides the range of potential changes in emissions and costs for decorative facilities that follow the alternative phase out pathway. This analysis is necessary to evaluate the emissions and costs associated with the alternative phase out pathway in the 15-day changes to the Proposed Amendments that are described in Attachment 1.

A. Emission Impact

The additional three years prior to the phase out of hexavalent chromium provided for decorative plating facilities that elect to comply with the alternative phase out pathway decreases the potential emission reductions when compared to the original proposal. It is uncertain how many decorative chrome plating facilities will elect to comply with the alternative phase out pathway, so this analysis provides the emission impacts for one decorative chrome plating facility that elects to comply with the alternative phase out pathway and provides the values if all decorative chrome plating facilities choose the alternative pathway. This ensures that the range of potential impacts is included in the analysis.

A summary of results is provided in Table III.1, showing the potential emission reductions that would be achieved for decorative chrome plating facilities that follow the alternative phase out pathway, as compared to those that follow the original proposal. The estimated potential hexavalent chromium emission reductions were calculated based on each facility's permitted throughput and the applicable emission limits.

As shown in Table III.1, a single facility electing to comply with the alternative phase out pathway will have an associated decrease in the average emission reductions of 0.08 pounds of hexavalent chromium over twenty years. If all 51 decorative chrome plating facilities elect to comply with the alternative phase out pathway, staff estimated that there will be a decrease in the emission reductions of 3.94 pounds when compared to the original proposal for the same 20-year period. Even though the analysis period is 20-years, the reduction of 3.94 pounds for the decorative chrome plating facilities occur over a three-year period, between 2027 to 2030. These values only consider emissions from the stack and do not include fugitive emissions.

Table III.1. Summary of Emissions Reductions for Decorative Chrome Plating Facilities

Decorative Chrome Plating	Emissions Reductions - One Facility (lb) (2024 – 2043)	Emissions Reductions - All Facilities (lb) (2024 – 2043)
Alternative Phase Out Pathway	0.36	18.35
Original Proposal	0.44	22.29
Difference in Emissions Reductions	-0.08	-3.94

B. Cost Impact

Staff also analyzed the implementation costs for decorative chrome plating facilities that elect to comply with the alternative phase out pathway. Decorative chrome plating facilities that choose the alternative phase out pathway must comply with the building enclosure requirements prior to January 1, 2026, and must phase out

hexavalent chromium prior to January 1, 2030. Staff assumed that decorative chrome plating facilities in the South Coast AQMD’s jurisdiction would not need to incur additional cost for the building enclosure requirements because they are already required to comply with the building enclosure requirements under Rule 1469.

A summary of the cost analysis is shown in Table III.2 below. Because it is uncertain how many decorative chrome plating facilities will elect to comply with the alternative phase out pathway, Table III.2 provides the cost impacts for one decorative chrome plating facility to comply with the alternative pathway, cost impacts if all decorative chrome plating facilities choose the alternative pathway, cost impacts if all decorative chrome plating facilities comply with the original proposed phase out, and the difference in total cost.

As shown in Table III.2, the cost impact to an average facility from 2024 through 2043 decreases by \$70,625 if they elect to comply with the alternative phase out pathway as compared to the original proposal. The overall cost impact if all decorative chrome plating facilities elect to comply with the alternative pathway decreases by \$3,601,866 over the same 20-year period. The total cost is lower (represented by a negative value) because facilities that elect to comply with the alternative phase out pathway are expected to incur less costs in the initial years due to the three years of additional time provided prior to the phase out from 2027 to 2030.

Table III.2. Summary of Costs for Decorative Chrome Plating Facilities

Decorative Chrome Plating	Total Cost Per Facility (2024 – 2043)¹	Total Cost - All Facility (2024 – 2043)¹
Alternative Phase Out Pathway	\$784,473	\$40,008,122
Original Proposal	\$855,098	\$43,609,988
Difference in Total Cost	(-\$70,625)	(-\$3,601,866)

¹Value includes sales tax paid by the facilities.