

GENERAL AIR QUALITY OPERATING PERMIT #6144
FOR AREA SOURCE PLATING, ANODIZING & POLISHING FACILITIES

TECHNICAL SUPPORT DOCUMENT (TSD)

December 2020

I. GENERAL COMMENTS

The Pima County Department of Environmental Quality (PDEQ) has created this general permit and application package for Plating, Anodizing and Polishing Operations to streamline the permitting process for the numerous sources that would otherwise require substantially similar individual source permits. This general permit combines two National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart N (Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks) and Subpart WWWWWW (6W) (Plating and Polishing Operations). PDEQ has combined these two NESHAPS into the same general permit because several facilities located in Pima County have activities that are subject to both NESHAPS. By combining the NESHAPS, area sources that have multiple plating and polishing operations, where some of them are subject to Subpart N and others are subject to Subpart 6W, will be eligible to obtain this general permit instead of an individual permit. This permit action shall also reduce PDEQ's workload and afford decreased permitting timeframes.

To obtain coverage under this general permit, the Applicant shall complete the PDEQ general permit application form for Plating, Anodizing and Polishing Operations in order to obtain a PDEQ *Authorization to Operate* (ATO) certificate.

This is the first 5-year renewal of the general permit.

II. SOURCE DESCRIPTION

This general permit covers area sources performing hard chromium electroplating, decorative chromium electroplating, chromium anodizing and the following operations if they have the potential to emit any compounds of cadmium, chromium, lead, manganese and nickel or any of these metals in the elemental form, with the exception of lead, that are used or have the potential to be emitted in quantities of 0.1 percent or more or 1.0 percent or more for elemental or compounds of manganese; non-chromium electroplating, electroless plating and coating, thermal spraying and polishing operations.

These are area sources that do not otherwise require an air quality permit for other emission units, equipment or processes located or conducted on-site.¹ Sources performing permit-required activities beyond those of the affected plating and polishing processes cannot obtain this general permit and shall be required to submit a complete permit application and obtain an individual air quality permit from PDEQ.

The primary pollutants emitted from the affected plating, anodizing and polishing activities are Hazardous Air Pollutants (HAPs) specifically compounds or elemental forms of any of the following metals: cadmium, chromium, manganese, and nickel as well as emissions of compounds of lead. Sources covered by this general permit shall emit less than major source thresholds on an individual basis for all criteria pollutants and HAPs.

¹ Such equipment includes, but is not limited to boilers, generators, petroleum liquid storage vessels, paint spray operations and so on. Such equipment, if demonstrated to be insignificant, may not exempt your source from coverage under this General Permit.

III. EMISSION ESTIMATES

Based on standard AP-42 emission factors (or test results submitted by the source) the sum of all emissions from any source operating under this general permit shall be less than the major source threshold defined in PCC 17.04.340.A 128.

Facilities covered by this general permit shall be **Class II, Minor, Stationary Sources**.

IV. APPLICABLE REQUIREMENTS

A. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

40 CFR 63, Subpart N: National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks

40 CFR 63 Subpart WWWW: National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations

B. Pima County Code (PCC)

The following PCC rules apply:

17.16.040 Standards and Applicability (Including NESHAPS)

V. PERMIT CONTENTS

A. The Pima County Code Section contains provisions that apply to all sources of air contaminants operating in Pima County and are Locally Enforceable Conditions unless noted otherwise.

B. There are two NESHAPS covered in this general permit:

Part I contains general and specific conditions for facilities subject to Subpart N. The general conditions in Part I apply to all tanks subject to Subpart N. The facilities subject to Subpart N have been divided into four categories. Each category contains the specific conditions applicable to the processes that meet the criteria described by the category.

Part II contains general and specific conditions pertaining to facilities subject to Subpart 6W. The facilities subject to Subpart 6W have been divided into five categories. Each category contains the specific conditions applicable to all processes subject to that category.

The Permittee may be subject to just one of the categories or multiple categories in both parts. The conditions in Part I and II are Federally Enforceable Conditions unless noted otherwise.

VI. STATEMENT OF BASIS

Contained in the general permit are several references to earlier versions of Subpart N (Federal Register / Vol. 60, No. 16 / Wednesday, January 25, 1995 / Rules and Regulation) and Subpart 6W (Federal Register / Vol. 73, No. 127 / Tuesday, July 1, 2008 / Rules and Regulations). PDEQ determined that some of the language in the amended publications of the Subparts was missing or mixed up. Furthermore, these changes were not referenced or accounted for in the Federal Register / Vol. 66, No. 181/ Monday, September 19, 2011 / Rules and Regulation which discuss and list the final amendments to Subpart N and the Federal Register / Vol. 77, No. 182/ Wednesday, September 19, 2012 / Rules and Regulation that discuss and list the final amendments to Subpart 6W. In order to understand or completely include the context of the regulation, information from original versions of Subparts N and 6W, before the rules were amended, was inserted to clarify a few of the regulations in the Subparts that otherwise were confusing.

The following is a list of the conditions in the General Permit that were altered from the current amended regulations published for Subpart N and Subpart 6W to conform with the original printing of the rules and what PDEQ believed was the intent of the regulation referenced.

Part I: General Conditions

- 11.c.ii(A), (B), and (C)
- 11.c.iii
- 11.f.ii(A), (B), and (C)

Part II: Category 7: Specific Conditions

- 3.a & b

Also, it was discovered in the process of writing this permit that a few of the regulations in Subpart N were referencing a second regulation that didn't exist or contained information that did not apply to the regulation containing the citation. The table below, list these regulations, the regulations referenced and where they are incorporated into PDEQ's General Permit.

PDEQ General Permit Citation Part I	40 CFR 63 Subpart N Citation	Regulation Referenced	Citation Reference used in the PDEQ General Permit
Category 1: 4 Category 2: 4	63.343(a)(5)	63.342(c)(2)	63.342(c)(3)
Category 1: 4 Category 2: 4	63.343(a)(5)	63.343(a)(1)(ii)	63.343(a)(1)
General Conditions 11.a.iii	63.343(c)(1)(iii)	63.343	63.342
General Conditions: 21.1	63.346(b)(12)	63.342(c)(2)	63.342(c)(3)
Category 1: 9 Category 2: 16	63.347(c)(1)(viii)	63.342(c)(2)	63.342(c)(3)
General Conditions: 27.b.viii	63.347(e)(2)(viii)	63.342(c)(2)	63.342(c)(3)
General Conditions: 17.g	63.347(g)(3)(vii)	63.342(c)(2)	63.342(c)(3)
Category 2: 7	63.344(f)	63.342(c)(iv) or (v)	63.342(c)(iv), (v), or (vii)