ASSIGNMENT to

GENERAL AIR CONTAMINANT DISCHARGE PERMIT

Lane Regional Air Protection Agency
1010 Main St
Springfield, OR 97477
(541) 736-1056

PERMITTEE:
Northwest Industrial Chrome
1360 West 1st Avenue
Eugene, OR 97402

INFORMATION RELIED UPON:
Application No.: 64524
Date Received: November 26, 2018

PLANT SITE LOCATION:
1360 West 1st Avenue
Eugene, OR 97402

LAND USE COMPATIBILITY STATEMENT:
Approving Authority: City of Eugene
Approval Date: April 29, 2002

PERMITTEE ALSO ASSIGNED TO THE GENERAL ACDP ATTACHMENT:
AQGP-026a for Plating and Polishing

ASSIGNMENT: The permittee identified above is assigned by the Lane Regional Air Protection Agency to the General ACDP listed below in accordance with ORS 468A.040, LRAPA Title 37 Section 37-0060(2) and based on the land use compatibility findings included in the permit record.

JAN 3 2019
Merlyn L. Hough, Director Dated

General Air Contaminant Discharge Permit Issued in Accordance with Section 37-0060:

<table>
<thead>
<tr>
<th>General ACDP Number</th>
<th>Expiration Date</th>
<th>Source Category Description</th>
<th>SIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQGP-001</td>
<td>10/11/2028</td>
<td>Hard chrome platers (LRAPA 37-0020, Table 1, Part B, 20)</td>
<td>3471</td>
</tr>
</tbody>
</table>
### SUPPLEMENTAL INFORMATION:

<table>
<thead>
<tr>
<th>Facility contact:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name:</strong> Tim Jablonski (or Mack Carr)</td>
</tr>
<tr>
<td><strong>Title:</strong> Owner (or Lead Plater)</td>
</tr>
<tr>
<td><strong>Phone number:</strong> (541) 359-7635 (or 541-729-1741)</td>
</tr>
<tr>
<td><strong>e-mail address:</strong> <a href="mailto:timjabo@msn.com">timjabo@msn.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Permit Summary:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Source Test Requirement</strong></td>
</tr>
<tr>
<td><strong>NSPS (40 CFR Part 60)</strong></td>
</tr>
<tr>
<td><strong>NESHAP (40 CFR Part 63)</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reports Required:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Annual</strong> Yes</td>
</tr>
<tr>
<td><strong>NSPS</strong> No</td>
</tr>
<tr>
<td><strong>NESHAP</strong> Yes</td>
</tr>
<tr>
<td><strong>Other</strong> No</td>
</tr>
</tbody>
</table>

| Public Notice | Category I |

**Application review report:**

LRAPA has reviewed the application for assignment to the General ACDP and determined that the application is complete and the subject facility qualifies for assignment to the General ACDP.
GENERAL
AIR CONTAMINANT DISCHARGE PERMIT

Lane Regional Air Protection Agency
1010 Main Street
Springfield, OR 97477
(541) 736-1056

This permit is issued in accordance with the provisions of ORS 468A.040 and LRAPA 37-0060

ISSUED BY THE LANE REGIONAL AIR PROTECTION AGENCY

Merlyn L. Hough, Director

Dated

OCT 11 2018

<table>
<thead>
<tr>
<th>Table 1 Code</th>
<th>Source Description</th>
<th>SIC</th>
<th>NAICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part B, 20</td>
<td>Chromium electroplaters using hard chromium electroplating tanks subject to Part 63, Title 40 of Code of Federal Regulations, Subpart N as adopted under LRAPA 44-150.</td>
<td>3471</td>
<td>332813</td>
</tr>
</tbody>
</table>

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1.0 PERMIT ASSIGNMENT

1.1 Qualifications
All of the following conditions must be met in order to qualify for assignment to this General Air Contaminant Discharge Permit (ACDP):

a. The permittee is performing hard chromium electroplating as listed on the cover page of this permit, including supporting activities.

b. A Simple or Standard ACDP is not required for the source.

c. The source is not having ongoing, recurring or serious compliance problems.

1.2 Assignment
LRAPA will assign qualifying permittees to this permit that have and maintain a good record of compliance with LRAPA’s Rules and Regulations and that LRAPA determines would be appropriately regulated by a General ACDP. LRAPA may rescind assignment if the permittee no longer meets the requirements of LRAPA Title 37, Section 37-0060 and the conditions of this permit.

1.3 Permitted Activities
The permittee is allowed to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, revoked or rescinded as long as the permittee complies with the conditions of this permit. If there are other emissions activities occurring at the site besides those listed on the cover page of this permit, the permittee may be required to obtain a Simple or Standard ACDP or General ACDP Attachment(s), if applicable.

1.4 Relation to Local Land Use Laws
This permit is not valid outside of Lane County, or at any location where the operation of the permittee’s processes, activities, and insignificant activities would be in violation of any local land use or zoning laws. For operation outside of Lane County, contact The Department of Environmental Quality for any necessary permits at (503) 229-5696. It is the permittee’s sole responsibility to obtain local land use approvals as, or where, applicable before operating this facility at any location.

2.0 GENERAL EMISSION STANDARDS AND LIMITS

2.1 Visible Emissions
The permittee must comply with the following visible emission limits from air contaminant sources other than fugitive emission sources, as applicable. The visible emissions limitation in this condition is based upon a period or periods aggregating more than three-minutes in any one hour. Observations shall be recorded at 15-second intervals as specified in LRAPA 32-010(2). Opacity
must be measured as a three-minute aggregate period using EPA Method 203B, a continuous opacity monitoring system (COMS) installed and operated in accordance with the DEQ Continuous Monitoring Manual or 40 CFR part 60, or an alternative monitoring method approved by LRAPA that is equivalent to EPA Method 9.

a. Emissions from any air contaminant source installed, constructed, or modified before June 1, 1970, must not equal or exceed:
   i. 40% opacity through December 31, 2019; and
   ii. 20% opacity on or after January 1, 2020.

2.2 Particulate Matter Emissions

The permittee must comply with the following particulate matter emission limits, as applicable:

a. Particulate matter emissions from any air contaminant source installed, constructed or modified before June 1, 1970 other than fuel burning equipment and fugitive emission sources must not exceed:
   i. 0.24 grains per standard cubic foot, prior to December 31, 2019; and
   ii. 0.15 grains per dry standard cubic foot on or after January 1, 2020.

b. Particulate matter emissions from any air contaminant source installed, constructed or modified on or after June 1, 1970 but before April 16, 2015 other than fuel burning equipment and fugitive emission sources must not exceed 0.14 grains per dry standard cubic foot.

c. Particulate matter emissions from any air contaminant source installed, constructed or modified on or after April 16, 2015 other than fuel burning equipment and fugitive emission sources must not exceed 0.10 grains per dry standard cubic foot.

d. Particulate matter emissions from equipment or a mode of operation installed, constructed or modified before June 1, 1970 other than fuel burning equipment and fugitive emission sources that is used less than 876 hours per calendar year must not exceed:
   i. 0.24 grains per standard cubic foot from April 16, 2015 through December 31, 2019; and
   ii. 0.20 grains per dry standard cubic foot on or after January 1, 2020.
e. Particulate matter emissions from any fuel burning equipment installed, constructed, or modified before June 1, 1970 must not exceed:
   i. 0.24 grains per dry standard cubic foot, corrected to 12% CO₂ or 50% excess air prior to December 31, 2019; and
   ii. 0.15 grains per dry standard cubic foot corrected to 12% CO₂ or 50% excess air on or after January 1, 2020.

f. Particulate matter emissions from any fuel burning equipment installed, constructed, or modified on or after June 1, 1970 but before April 16, 2015 must not exceed 0.14 grains per dry standard cubic foot, corrected to 12% CO₂ or 50% excess air.

g. Particulate matter emissions from any fuel burning equipment installed, constructed, or modified on or after April 16, 2015 must not exceed 0.10 grains per dry standard cubic foot, corrected to 12% CO₂ or 50% excess air.

h. Non-fugitive particulate matter emissions from any process must not exceed the amount shown in LRAPA 32-8010 for the process weight allocated to such a process.

2.3 Fugitive Emissions

The permittee must take reasonable precautions at all times to prevent fugitive dust emissions, as measured by EPA Method 22, by:

a. Using, where possible, water or chemicals for control of dust in the demolition of existing buildings and structures, construction operations, the grading of roads or clearing of land;

b. Applying water or other suitable chemicals on unpaved roads, materials stockpiles, and other surfaces which can create airborne dusts;

c. Enclosing (full or partial) materials stockpiles in cases where application of water or other suitable chemicals are not sufficient to prevent particulate matter from becoming airborne;

d. Installing and using hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;

e. Installing adequate containment during sandblasting or other similar operations;

f. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
g. Promptly removing earth or other material that does or may become airborne from paved streets; and

h. Developing an LRAPA approved fugitive emission control plan upon request by LRAPA if the above precautions are not adequate and implementing the plan whenever fugitive emissions leave the property for more than 18 seconds in a six-minute period.

2.4 Particulate Matter Fallout

The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person.

2.5 Nuisance and Odors

The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by LRAPA personnel. The creation of nuisance conditions may, in addition to other action LRAPA may take, result in rescinding assignment to the permit and the permittee will be required to obtain a Simple or Standard ACDP, whichever is applicable.

2.6 Emergency Stationary RICE

The permittee must comply with the following requirements for emergency stationary reciprocating internal combustion engines (RICE). For each emergency stationary RICE, the permittee must:

a. Change oil and filter every 500 hours of operation or annually, whichever comes first;

b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;

c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary;

d. During periods of startup, minimize the engine’s time spent at idle and minimize the engine’s startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes;

e. The permittee must install a non-resettable hour meter on each emergency stationary RICE, if one is not already installed.

2.7 Operating Conditions for Emergency Stationary RICE

The permittee must operate any emergency stationary RICE in compliance with the following conditions:

a. There is no time limit on the use of emergency stationary RICE in emergency situations.

b. Emergency stationary RICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required maintenance and testing of such units is limited to 50 hours per year.
c. The permittee is prohibited from using the emergency stationary RICE for any non-emergency use including but not limited to peak shaving, demand response operation, and/or generation of income from the sale of power.

d. The permittee must keep records of the hours of operation of each emergency stationary RICE that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation used for maintenance checks and readiness testing.

3.0 SPECIFIC EMISSION STANDARDS AND LIMITS

3.1 Applicability of Chromium Emission Limitations

The following emission limits apply during tank operation, start-up, and shutdown. The emission limitations do not apply during periods of malfunctions, but the work practice standards that address operation and maintenance (Condition 4.1) must be followed during malfunctions.

3.2 Chromium Emission Limitations

For each hard chromium electroplating tank, the permittee must control chromium emissions discharged to the atmosphere by either:

a. Not allowing the concentration of total chromium in the exhaust gas stream discharged to atmosphere to exceed the following emission limits. Special compliance provisions apply for multiple sources controlled by a common add-on air pollution control device.

<table>
<thead>
<tr>
<th>Affected Tanks</th>
<th>Emission Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small, existing tanks a</td>
<td>0.015 mg of total chromium/dscm</td>
</tr>
<tr>
<td>Large, existing tanks</td>
<td>0.011 mg of total chromium/dscm</td>
</tr>
<tr>
<td>New tanks b</td>
<td>0.006 mg of total chromium/dscm</td>
</tr>
</tbody>
</table>

a Small means a facility that performs hard chromium electroplating and has a maximum or actual cumulative rectifier capacity less than 60 million amp-hour/year. Initial demonstration that a facility was small had to be completed by January 25, 1997. (See Condition 6.7 for information on recordkeeping for this requirement.)

b New means a tank, the construction or reconstruction of which commenced after February 8, 2012.

b. If a chemical fume suppressant containing a wetting agent is used, not allowing the surface tension of the
electroplating or anodizing bath contained within the affected tank to exceed 40 dynes per centimeter (cm) as measured by a stalagmometer or 33 dynes/cm as measured by a tensiometer, at any time during tank operation.

c. In lieu of complying with either Condition 3.2a or 3.2b, for enclosed tanks that are large, existing tanks, not allowing the mass rate of total chromium in the exhaust gas stream discharged to the atmosphere to exceed the maximum allowable mass emission rate determined by using the calculation procedure in Condition 3.3a.

d. In lieu of complying with either Condition 3.2a or 3.2b, for enclosed tanks that are small, existing tanks, not allowing the mass rate of total chromium in the exhaust gas stream discharged to the atmosphere to exceed the maximum allowable mass emission rate determined by using the calculation procedure in Condition 3.3a.

e. In lieu of complying with either Condition 3.2a or 3.2b, for enclosed tanks that are new, not allowing the mass rate of total chromium in the exhaust gas stream discharged to the atmosphere to exceed the maximum allowable mass emission rate determined by using the calculation procedure in Condition 3.3b.

f. After September 21, 2015, the permittee must not add PFOS-based fume suppressants to any affected open surface hard chromium electroplating tank.

g. If multiple hard chromium electroplating tanks are controlled by a common add-on air pollution control device, the emission limit must be met at the outlet of the add-on air pollution control device. If the add-on air pollution control device also controls emissions from non-hard chromium electroplating tanks, the emission limit must be calculated according to 40 CFR Part 63.344(e)(3).

3.3 Maximum Allowable Mass Emission Rate

The following procedures must be used to calculate the maximum allowable emission rate if the permittee chooses to meet the mass emission rate standard in Condition 3.2c or 3.2d. Compliance with the alternative mass emission limit is demonstrated if the three-run average mass emission rate determined from EPA Method 306 or 306A testing is less than or equal to the maximum allowable mass emission rate calculated as follows:

a. For an enclosed tank that is a large, existing tank, and if choosing to comply with Condition 3.2c, the permittee must determine compliance by not allowing the mass rate of total chromium in the exhaust gas stream discharged to
the atmosphere to exceed the maximum allowable mass emission rate calculated using the following equation:
MAMER = ETSA x K x 0.011 mg/dscm
Where:
MAMER = the alternative emission rate in mg/hr.
ETSA = the surface area of the tank in square feet (ft²).
K = a conversion factor, 425 dscm/(ft² x hr).

b. For an enclosed tank that is a small, existing tank, and if choosing to comply with Condition 3.2d, the permittee must determine compliance by not allowing the mass rate of total chromium in the exhaust gas stream discharged to the atmosphere to exceed the maximum allowable mass emission rate calculated using the following equation:
MAMER = ETSA x K x 0.015 mg/dscm
Where:
MAMER = the alternative emission rate in mg/hr.
ETSA = the surface area of the tank in square feet (ft²).
K = a conversion factor, 425 dscm/(ft² x hr).

c. For an enclosed tank that is a new tank, and if choosing to comply with Condition 3.2e, the permittee must determine compliance by not allowing the mass rate of total chromium in the exhaust gas stream discharged to the atmosphere to exceed the maximum allowable mass emission rate calculated using the following equation:
MAMER = ETSA x K x 0.006 mg/dscm
Where:
MAMER = the alternative emission rate in mg/hr.
ETSA = the surface area of the tank in square feet (ft²).
K = a conversion factor, 425 dscm/(ft² x hr).

4.0 OPERATION AND MAINTENANCE REQUIREMENTS

4.1 Work practices
At all times, including periods of startup, shutdown, and malfunction, the permittee must operate and maintain any affected source, including associated air pollution control devices and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions and consistent with the operation and maintenance plan required in Condition 4.2. Malfunctions must be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan.

The facility must have an operation and maintenance plan.
4.2 O&M Plan Requirement

a. The permittee must keep the written operation and maintenance plan onsite to be made available for inspection, for the life of the affected source or until the source is no longer subject to this permit. In addition, if the operation and maintenance plan is revised, the permittee must keep previous versions of the operation and maintenance plan onsite for a period of 5 years after each revision to the plan.

b. To satisfy the requirement to have an operation and maintenance plan, the permittee may use any applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans, provided they meet the requirements below.

4.3 O&M Plan Content

The O&M plan must include:

a. The operation and maintenance criteria for the affected source(s), the add-on air pollution control device, and the process and control system monitoring equipment.

b. A standardized checklist to document the operation and maintenance of the affected source(s), the add-on pollution control devices, and the process and control system monitoring equipment.

c. If using an add-on air pollution control device or monitoring equipment, work practice standards for that device or monitoring equipment. Add-on pollution control devices and their work practices are identified in Condition 4.7, Table 1. Other alternatives may be used after being approved by EPA. See 40 CFR 63.343(c)(8).

d. If not using the specific equipment listed in Table 1 of Condition 4.7, proposed work practice standards to be submitted as required under 40 CFR 63.343(d).

e. Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur.

f. A systematic procedure to identify malfunctions of the affected source(s), add-on air pollution control devices, and process and control system monitoring equipment and to implement corrective actions to address such malfunctions.

g. Housekeeping procedures, as specified in Condition 4.8, Table 2.

4.4 O&M Plan Revisions

If the plan fails to address or inadequately addresses a malfunction, the plan must be revised within 45 days after the
malfunction occurs. The revised plan must include procedures for operating and maintaining the affected source(s), add-on air pollution control device, or monitoring equipment during similar malfunction events, and a program for corrective action for such events. Within 2 days after commencing corrective actions inconsistent with the plan, the permittee must record the actions taken and report such actions to LRAPA by phone. The report must be followed by a letter sent to LRAPA within 7 working days of the event, unless the permittee makes alternative reporting arrangements with LRAPA.

4.5 Fugitive Emission Control Plan

The permittee must submit a fugitive emission control plan within 60 days of request by LRAPA. The plan must be implemented whenever fugitive emissions leave the property for more than 18 seconds in a six-minute period. The plan must be kept on site and be made available upon request.

4.6 Inspection of Equipment

The permittee must inspect control devices, ductwork, and monitoring equipment according to Condition 4.7, Table 1. The results of the inspection must be logged, and the log kept on site for a period of at least 5 years.

4.7 Table 1 - Summary of Work Practice Standards

<table>
<thead>
<tr>
<th>Control Techniques</th>
<th>Work Practice Standards</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composite mesh-pad (CMP) system</td>
<td>Visually inspect device to ensure there is proper drainage, no chromic acid buildup on the pads, and no evidence of chemical attack on the structural integrity of the device.</td>
<td>Once per quarter</td>
</tr>
<tr>
<td></td>
<td>Visually inspect back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Visually inspect ductwork from the tank to the control device to ensure there are no leaks.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Perform washdown of the composite mesh-pads in accordance with manufacturer’s recommendations.</td>
<td>Per manufacturer</td>
</tr>
<tr>
<td>Packed-bed scrubber (PBS)</td>
<td>Visually inspect device to ensure there is proper drainage, no chromic acid buildup on the packed beds, and no evidence of chemical attack on the structural integrity of the device.</td>
<td>Once per quarter</td>
</tr>
<tr>
<td></td>
<td>Visually inspect back portion of the chevron blade mist eliminator to ensure that it is dry and there is no breakthrough of chromic acid mist.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Visually inspect ductwork from the tank to the control device to ensure there are no leaks.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Add fresh water to top of the packed bed.</td>
<td>As makeup is added</td>
</tr>
<tr>
<td>PBS/CMP system</td>
<td>Same as Composite mesh-pad system</td>
<td></td>
</tr>
<tr>
<td>Fiber-bed mist eliminator</td>
<td>Visually inspect fiber-bed unit and prefiltering device to ensure there is proper drainage, no chromic acid buildup in the units, and no evidence of chemical attack on the structural integrity of the device.</td>
<td>Once per quarter</td>
</tr>
<tr>
<td>Control Techniques</td>
<td>Work Practice Standards</td>
<td>Frequency</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td></td>
<td>Visually inspect ductwork from the tank to control device to ensure that there are no leaks.</td>
<td>Per manufacturer</td>
</tr>
<tr>
<td></td>
<td>Perform washdown of fiber elements in accordance with manufacturer’s recommendations.</td>
<td></td>
</tr>
<tr>
<td>Air pollution control device (APCD) not listed in rule</td>
<td>Performed as approved by LRAPA.</td>
<td>Once per quarter, or more frequently per manufacturer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monitoring Equipment:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitot tube</td>
<td>Backflush with water, or remove from the duct and rinse with fresh water. Check pitot tube ends for damage. Replace pitot tube if cracked or fatigued. Replace in duct and rotate 180 degrees to ensure that the same zero reading is obtained.</td>
</tr>
<tr>
<td>Stalagmometer/Tensiometer</td>
<td>Follow manufacturer’s recommendations.</td>
</tr>
</tbody>
</table>

\[a\] If greater than 50 percent of the scrubber water is drained (e.g., for maintenance purposes), makeup water may be added to the scrubber basin.

\[b\] For horizontal-flow scrubbers, top is defined as the section of the unit directly above the packing media such that the makeup water would flow perpendicular to the air flow through the packing. For vertical-flow units, the top is defined as the area downstream of the packing material such that the makeup water would flow countercurrent to the air flow through the unit.

### 4.8 Table 2 – Housekeeping Practices

<table>
<thead>
<tr>
<th>For</th>
<th>The permittee must</th>
<th>Minimum Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Any substance used in an affected chromium electroplating tank that contains hexavalent chromium</td>
<td>Store the substance in a closed container in an enclosed storage area or building; AND Use a closed container when transporting the substance from the enclosed storage area.</td>
<td>At all times, except when transferring the substance to and from the container.</td>
</tr>
<tr>
<td>2. Each affected tank, to minimize spills of bath solution that result from dragout. Note: this measure does not require the return of contaminated bath solution to the tank. This requirement applies only as the parts are removed from the tank. Once away from the tank area, any spilled solution must be handled in accordance with Item 4 of these housekeeping measures.</td>
<td>Install drip trays that collect and return to the tank any bath solution that drips or drains from parts as the parts are removed from the tank; OR Contain and return to the tank any bath solution that drains or drips from parts as the parts are removed from the tank; OR Collect and treat in an onsite wastewater treatment plant any bath solution that drains or drips from parts as the parts are removed from the tank.</td>
<td>Prior to operating the tank. Whenever removing parts from an affected tank. Whenever removing parts from an affected tank.</td>
</tr>
<tr>
<td>For</td>
<td>The permittee must</td>
<td>Minimum Frequency</td>
</tr>
<tr>
<td>-----</td>
<td>--------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>3. Each spraying operation for removing excess chromic acid from parts removed from, and occurring over, an affected tank.</td>
<td>Install a splash guard to minimize overspray during spraying operations and to ensure that any hexavalent chromium laden liquid captured by the splash guard is returned to the affected chromium electroplating or anodizing tank.</td>
<td>Prior to any such spraying operation.</td>
</tr>
<tr>
<td>4. Each operation that involves the handling or use of any substance used in an affected chromium electroplating or chromium anodizing tank that contains hexavalent chromium.</td>
<td>Clean up, or otherwise contain, all spills of the substance. Note: substances that fall or flow into drip trays, pans, sumps, or other containment areas are not considered spills.</td>
<td>Within 1 hour of the spill.</td>
</tr>
<tr>
<td>5. Surfaces within the enclosed storage area, open floor area, walkways around affected tanks contaminated with hexavalent chromium from an affected chromium electroplating or chromium anodizing tank.</td>
<td>Clean the surfaces using one or more of the following methods: HEPA vacuuming; Hand-wiping with a damp cloth; Wet mopping; Hose down or rinse with potable water that is collected in a wastewater collection system; Other cleaning method approved by the permitting authority; OR Apply a non-toxic chemical dust suppressant to the surfaces.</td>
<td>At least once every 7 days if one or more chromium electroplating or chromium anodizing tanks were used, or at least after every 40 hours of operating time of one or more affected chromium electroplating or chromium anodizing tank, whichever is later.</td>
</tr>
<tr>
<td>6. All buffing, grinding, or polishing operations that are located in the same room as chromium electroplating or chromium anodizing operations.</td>
<td>Separate the operation from any affected electroplating or anodizing operation by installing a physical barrier; the barrier may take the form of plastic strip curtains.</td>
<td>Prior to beginning the buffing, grinding, or polishing operation.</td>
</tr>
<tr>
<td>7. All chromium or chromium-containing wastes generated from housekeeping activities.</td>
<td>Store, dispose, recover, or recycle the wastes using practices that do not lead to fugitive dust and in accordance with hazardous waste requirements.</td>
<td>At all times.</td>
</tr>
</tbody>
</table>

5.0 COMPLIANCE DEMONSTRATION

5.1 Initial Performance Test

To demonstrate compliance with the emission limitations for affected tanks not using wetting agents in Conditions 3.2a, 3.2c, 3.2d, or 3.2e, a performance test(s) is required and must be performed according to 40 CFR 63.7 and 63.344(a) through (c).

a. New sources are required to conduct the initial performance test within 180 days after initial startup.

b. Existing sources that have yet to demonstrate compliance with the emission limits in Conditions 3.2a, 3.2c, 3.2d, or
3.2e are required to conduct the initial performance test as soon as possible but not later than 180 days after assignment to this permit.

c. During the performance test, the permittee must establish site specific operating parameter(s) according to the procedures in 40 CFR 63.343(c) and 63.344(d).

d. All tests must be conducted in accordance with DEQ's Source Sampling Manual and with the pretest plan submitted at least 15 days in advance and approved by the LRAPA Source Test Coordinator.

e. The permittee must operate the equipment at normal maximum capacity.

f. Only regular operating staff may adjust production processes and emission control parameters during the source test and within two (2) hours prior to the tests. Any operating adjustments made during the source test, which are a result of consultation during the tests with source testing personnel, equipment vendors or consultants, may render the source test invalid.

g. The permittee must submit the test data and results for review to the LRAPA Source Test Coordinator within sixty (60) days of the test unless otherwise approved in the pretest plan. The results must be submitted in units of grains per dry standard cubic foot, milligrams per dry standard cubic meter, and in units of pounds per ampere hour.
5.2 Ongoing Source Test requirement

a. Existing permittees that have completed the initial performance test required by Condition 5.1 prior to or on September 19, 2012, and one subsequent performance test prior to October 1, 2018, must demonstrate ongoing compliance with the emission limitations for affected tanks not using wetting agents in Conditions 3.2a, 3.2c, 3.2d, or 3.2e by conducting an additional performance test at least once during the permit term. The performance test(s) must be performed according to 40 CFR 63.7 and 63.344(a) and (c), and Conditions 5.1b through f.

b. New permittees that are or have been assigned to this permit (AQGP-001) after September 19, 2012 must complete or have completed the initial performance test according to Condition 5.1 and an additional compliance test at least once during the permit term to demonstrate ongoing compliance with the emission limitations for affected tanks not using wetting agents in Conditions 3.2a, 3.2c, 3.2d, or 3.2e. The performance test(s) must be performed according to 40 CFR 63.7 and 63.344(a) and (c), and Conditions 5.1b through f.

5.3 Monitoring Requirements

The permittee must monitor the operation and maintenance of the plant and associated air contaminant control devices as follows:

a. On and after the date on which the initial performance test is required to be completed, the permittee must conduct monitoring according to the type of air pollution control technique that is used to comply with the emission limitation.

b. To be in compliance with the standards, the permittee must operate the control system within the parameters shown in the following table:

<table>
<thead>
<tr>
<th>Emission Reduction Technique</th>
<th>Monitoring Parameter</th>
<th>Monitoring Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composite mesh-pad system (CMP) or Combination CMP/PBS system</td>
<td>The pressure drop across the unit (or CMS/PBS system) must be maintained within the range of compliant values established during multiple performance tests or within ± 2 inches of water column of the pressure drop value established during the performance test. This requirement does not apply during automatic wash down cycles.</td>
<td>Once per day</td>
</tr>
</tbody>
</table>
Packed bed scrubber (PBS)

The velocity pressure at the inlet to the unit must be maintained within the range of compliant values established during multiple performance tests or within ±10 percent of the velocity pressure value established during the initial performance test, and the pressure drop across the unit must be maintained within the range of compliant values established during multiple performance tests or within ±1 inch of water column of the pressure drop value established during the performance test.

Fiber-bed mist eliminator

The pressure drop across the eliminator and the upstream control device must be maintained within the range of compliant values established during multiple performance tests or within ±1 inch of the water column of the pressure drop value established during the performance test.

Wetting agent or combination wetting agent and foam blanket

Bath surface tension must be below 40 dynes/cm as measured by a stalagmometer or 33 dynes/cm as measured by a tensiometer or the maximum value established during the performance test. Every 4 hours of tank operation

Foam blanket

Foam blanket thickness must be at least 1 inch or the thickness established during the performance test. Every 1 hour of tank operation

c. When a combination of emission reduction techniques are used, the permittee must monitor each separately.

d. The frequency of monitoring for wetting agents can be reduced according to the following table, in accordance with 40 CFR 63.343(c)(6):

<table>
<thead>
<tr>
<th>Operational Hours</th>
<th>Monitoring Frequency</th>
<th>If no exceedance in previous period</th>
<th>If exceedance(s) in previous period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hour 1-40</td>
<td>Every 4 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hour 41-80</td>
<td></td>
<td>Every 8 hours</td>
<td>Every 4 hours</td>
</tr>
<tr>
<td>Hour 81-120</td>
<td></td>
<td>Every 40 hours</td>
<td></td>
</tr>
<tr>
<td>Tank drained; new solution added</td>
<td>Every 4 hours</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6.0 RECORDKEEPING REQUIREMENTS

6.1 Inspection and Maintenance Records
The permittee must keep inspection and maintenance records for each tank(s), add-on pollution control device, and monitoring equipment, except routine housekeeping practices, to document that the inspection and maintenance requirements in Condition 4.1 and Condition 4.6 have taken place. The inspection records can take the form of a checklist and should identify the following:

a. Device inspected;
b. Date of inspection;
c. A brief description of the working condition of the device during the inspection; and
d. Any actions taken to correct deficiencies found during the inspection.

6.2 Malfunction Records
The permittee must keep records of the occurrence, duration, and cause (if known) of each malfunction of each affected source, associated pollution controls, and monitoring equipment. Records of actions taken during the malfunction to minimize emissions in accordance with Condition 3.1, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

6.3 Operation and Maintenance Plan
The permittee must keep records, which may take the form of checklists, necessary to demonstrate compliance with the provisions of the operation and maintenance plan required in Condition 4.2.

6.4 Test Reports and Measurements
The permittee must keep test reports documenting results of all performance tests and records of all measurements necessary to determine the conditions of performance tests, including measurements necessary to determine compliance with the special compliance procedures for single control of multiple sources in accordance with 40 CFR 63.344(c).

6.5 Monitoring Data
The permittee must keep records of monitoring data required in Condition 5.3 that are used to demonstrate compliance with the standard in Condition 3.2 including the date and time the data are collected.

6.6 Operating Time
The permittee must keep records of the total operating time of each affected source during the reporting period (hours).

6.7 Ampere Hours
If the actual cumulative rectifier capacity was used to demonstrate that the facility is a small hard chromium electroplater, according to 40 CFR 63.342(c)(3), the permittee must keep records of the actual cumulative rectifier capacity of hard chromium electroplating tanks at the facility expended during each month of
the reporting period, and the total capacity expended to date for the reporting period.

6.8 Fume Suppressant
If fume suppressants are used to comply with the standards in Condition 3.2, the permittee must keep records of the date and time that fume suppressants are added to the electroplating bath and records of the fume suppressant manufacturer and product name.

6.9 Excess Emissions
The permittee must maintain records of excess emissions as defined in LRAPA Title 36 (recorded on occurrence). Typically, excess emissions are caused by process upsets, startups, shutdowns, or scheduled maintenance. In many cases, excess emissions are evident when visible emissions are greater than 20% opacity as a three-minute aggregate period as specified in Condition 2.1. If there is an ongoing excess emission caused by an upset or breakdown, the permittee must cease operation of the equipment or facility no later than 48 hours after beginning of the excess emissions, unless continued operation is approved by LRAPA in accordance with LRAPA Title 36.

6.10 Complaint Log
The permittee must maintain a log of all written complaints and complaints received via telephone that specifically refer to air pollution concerns associated to the permitted facility. The log must include a record of the permittee’s actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.

6.11 Retention of Records
The permittee must maintain files of all information (including all reports and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. The files must be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

7.0 REPORTING REQUIREMENTS

7.1 Reporting Forms
Reporting forms for all required notifications and reports are available from LRAPA.

7.2 Initial Notification of Affected Facility
For each new source, notification must be submitted with the notification of construction required in Condition 7.3.
7.3 Notification of Construction

Prior to constructing a new affected source, reconstructing an affected source, or reconstructing a source such that it becomes an affected source, the permittee must:

a. Submit a notification of construction/re-construction 60 days prior to the date construction begins.

b. Submit a notification of the actual date of startup of the source within 30 days after such date.

7.4 Notification of Compliance Status

For each new source, the permittee must submit a notification of compliance status within 90 days after completion of the performance test, or within 30 days after initial startup if a performance test is not required. Included with this notification must be a report of the results of any performance test, if required.

The permittee must submit to LRAPA by February 15 of each year this permit is in effect, two (2) copies of the following information for the preceding calendar year unless otherwise approved by LRAPA:

a. Company name and address of the affected source;

b. Beginning and ending dates of the reporting period;

c. Identification of the operating parameter that is monitored for compliance determination required by Condition 5.3 and the operating parameter value, or range of values, that correspond to compliance with the emission limitation in Condition 3.2:

i. For surface tension - sampling device, sampling schedule and sampling results in dynes per centimeter; or,

ii. For control devices – summary of work practice standards in Condition 4.7 Table 1 and monitoring results in Condition 6.5.

d. Total operating time of each affected source during the reporting period (hours).

e. Actual cumulative rectifier capacity of hard chromium electroplating tanks expended during each month of the reporting period, and the total capacity expended to date for the reporting period if the actual cumulative rectifier capacity was used to demonstrate that the facility is a small hard chromium electroplater.

f. Date and time that fume suppressants are added to the electroplating bath if fume suppressants are used to comply with the standard in Condition 3.2.

g. Summary of complaints relating to air quality received by permittee during the year.
h. List of permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions.

i. List of major maintenance performed on pollution control equipment.

j. Current plant site contact. Provide name, title, phone number and email address.

k. All reports and certifications submitted to LRAPA must accurately reflect the monitoring, recordkeeping and other documentation held or performed by the owner or operator.

7.6 Exceedance Report

Excess emissions are emission levels that exceed the limits identified in Condition 3.2 as indicated by the monitoring data collected in accordance with Condition 5.3. If either of the following conditions is met, semiannual reports must be prepared and submitted to LRAPA.

a. The total duration of excess emissions (as indicated by the monitoring data collected by the permittee in accordance with Condition 5.2) is 1% or greater of the total operating time for the reporting period; and

b. The total duration of malfunctions of the add-on air pollution control device and monitoring equipment is 5% or greater of the total operating time for the reporting period.

Once the permittee reports an exceedance as defined above, ongoing compliance status reports must be submitted semiannually until a request to reduce reporting frequency, as allowed by 40 CFR 63.347(b)(3), is approved. LRAPA may determine on a case-by-case basis that the exceedance report must be completed more frequently and submitted.

7.7 Notification of Performance Test

The permittee must notify LRAPA at least 60 calendar days before a performance test is scheduled to begin. If the permittee is unable to conduct the performance test as scheduled, LRAPA must be notified at least 5 days prior to the scheduled date. Notification must include the rescheduled date of the test.

7.8 Performance Test Report

Within 60 days after the date of completing each performance test, the permittee must submit the results of the performance tests, including any associated fuel analyses, to the EPA’s WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA’s Central Data Exchange (CDX) (www.epa.gov/CDX) in accordance with 40 CFR 63.347(f)(3)(i).
7.9 Relocation Notice
The permittee must not install or operate the facility or any portion of the facility at any new site without first providing written notice to the LRAPA Permit Coordinator. The written notice must include the date of the proposed move, approximate dates of operation, a detailed map showing access to the new site, and a description of the air pollution controls and procedures to be installed, operated, and practiced at the new site. Additional permits may be required if the permittee operates individual components of the facility at more than one site.

7.10 Notification of Change of Ownership or Company Name
The permittee must notify LRAPA in writing using a LRAPA “Permit Application Form” within 60 days after the following:

a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or

b. Sale or exchange of the activity or facility.

7.11 Construction or Modification Notices
The permittee must notify LRAPA in writing using a LRAPA “Notice of Construction Form,” or other permit application form and obtain approval in accordance with LRAPA 34-034 through 34-038 before:

a. Constructing, installing, or establishing a new stationary source that will cause an increase in any regulated pollutant emissions;

b. Modifying or altering an existing source that may significantly affect the emission of air contaminants;

c. Making any physical change or change in operation of an existing stationary source that will cause an increase, on an hourly basis at full production, in any regulated pollutant emissions; or

d. Constructing or modifying any air pollution control equipment.

7.12 Where to Send Reports and Notices
The reports, with the permit number prominently displayed, must be sent to LRAPA as identified in Condition 8.2.

8.0 ADMINISTRATIVE REQUIREMENTS

8.1 Reassignment to the General ACDP
A complete application for reassignment to this permit is due within 30 days prior to the expiration date of the General ACDP or within 30 days after the permit is reissued. LRAPA will notify the permittee when the permit is reissued. The application must be sent to the LRAPA office.

a. If LRAPA is delinquent in renewing the permit, the existing permit will remain in effect and the permittee must comply with the conditions of the permit until such
time that the permit is reissued and the source is reassigned to the permit.

b. The permittee may submit an application for either a Simple or Standard ACDP at any time, but the permittee must continue to comply with the General ACDP until LRAPA takes final action on the Simple or Standard ACDP application.

c. If a complete application for reassignment to the General ACDP or Simple or Standard ACDP is filed with LRAPA in a timely manner, the permit will not be deemed to expire until final action has been taken on the application.

8.2 Permit Coordinator Address

All reports, notices, and applications should be directed to the LRAPA Permit Coordinator. The Permit Coordinator address is as follows:

Lane Regional Air Protection Agency
1010 Main Street
Springfield, OR 97477
Telephone: 541-736-1056

8.3 LRAPA Website

Information about air quality permits and LRAPA’s regulations may be obtained from the LRAPA web page: www.lrapa.org

All inquiries about this permit should be directed to the LRAPA office.

9.0 FEES

9.1 Annual Compliance Fee

The Annual Compliance Determination Fee specified in LRAPA Title 37, Section 37-0090, Table 2, Part 2(c) for a Class Three General ACDP is due on December 1 of each year this permit is in effect. An invoice indicating the amount, as determined by LRAPA regulations, will be mailed prior to the above date.

9.2 Change of Ownership or Company Name Fee

The non-technical permit modification fee specified in LRAPA Title 37, Section 37-0090, Table 2, Part 3(a) is due with an application for changing the ownership or the name of the company of a source assigned to this permit.

9.3 Where to Submit Fees

Fees must be submitted to:

Lane Regional Air Protection Agency
1010 Main Street
Springfield, OR 97477
(541) 736-1056
10.0 GENERAL CONDITIONS AND DISCLAIMERS

10.1 Other Regulations
In addition to the specific requirements listed in this permit, the permittee must comply with all other legal requirements enforceable by LRAPA.

10.2 Conflicting Conditions
In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.

10.3 Masking of Emissions
The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.

10.4 LRAPA Access
The permittee must allow LRAPA’s representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468-095.

10.5 Permit Availability
The permittee must have a copy of the permit available at the facility at all times.

10.6 Open Burning
The permittee may not conduct any open burning except as allowed by LRAPA Title 47.

10.7 Asbestos
The permittee must comply with the asbestos abatement requirements in LRAPA Title 43 for all activities involving asbestos-containing materials, including, but not limited to, demolition, renovation, repair, construction, and maintenance.

10.8 Property Rights
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

10.9 Modification or Revocation
LRAPA may modify or revoke this permit pursuant to LRAPA 37-0060(3), (4) and, 37-0082(4).
### 11.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
<th>NA</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACDP</td>
<td>Air Contaminant Discharge Permit</td>
<td>NA</td>
<td>not applicable</td>
</tr>
<tr>
<td>APCD</td>
<td>air pollution control device</td>
<td>NAICS</td>
<td>North American Industrial Classification System</td>
</tr>
<tr>
<td>calendar year</td>
<td>The 12-month period beginning January 1st and ending December 31st</td>
<td>NOx</td>
<td>nitrogen oxides</td>
</tr>
<tr>
<td>CO</td>
<td>carbon monoxide</td>
<td>NSR</td>
<td>New Source Review</td>
</tr>
<tr>
<td>cm</td>
<td>centimeter</td>
<td>O2</td>
<td>oxygen</td>
</tr>
<tr>
<td>CMP</td>
<td>composite mesh-pad</td>
<td>OAR</td>
<td>Oregon Administrative Rules</td>
</tr>
<tr>
<td>DEQ</td>
<td>Oregon Department of Environmental Quality</td>
<td>ORS</td>
<td>Oregon Revised Statutes</td>
</tr>
<tr>
<td>Dscf</td>
<td>dry standard cubic foot</td>
<td>O&amp;M</td>
<td>operation and maintenance</td>
</tr>
<tr>
<td>Dscm</td>
<td>dry standard cubic meter</td>
<td>Pb</td>
<td>Lead</td>
</tr>
<tr>
<td>EPA</td>
<td>US Environmental Protection Agency</td>
<td>PFOS</td>
<td>Perfluorooctane sulfonic acid</td>
</tr>
<tr>
<td>ETSA</td>
<td>Electroplating Tank Surface Area</td>
<td>PBS</td>
<td>packed bed scrubber</td>
</tr>
<tr>
<td>gal</td>
<td>gallon(s)</td>
<td>PCD</td>
<td>pollution control device</td>
</tr>
<tr>
<td>gr/dscf</td>
<td>grains per dry standard cubic foot</td>
<td>PM</td>
<td>particulate matter</td>
</tr>
<tr>
<td>HAP</td>
<td>Hazardous Air Pollutant as defined by LRAPA Title 44</td>
<td>PM10</td>
<td>particulate matter less than 10 microns in size</td>
</tr>
<tr>
<td>ID</td>
<td>identification number</td>
<td>ppm</td>
<td>part per million</td>
</tr>
<tr>
<td>I&amp;M</td>
<td>inspection and maintenance</td>
<td>ppmv</td>
<td>part per million by volume</td>
</tr>
<tr>
<td>K</td>
<td>conversion constant</td>
<td>PSD</td>
<td>Prevention of Significant Deterioration</td>
</tr>
<tr>
<td>Lb</td>
<td>pound(s)</td>
<td>PSEL</td>
<td>Plant Site Emission Limit</td>
</tr>
<tr>
<td>LRAPA</td>
<td>Lane Regional Air Protection Agency</td>
<td>PTE</td>
<td>Potential to Emit</td>
</tr>
<tr>
<td>MAMER</td>
<td>Maximum Allowable Mass Emission Rate</td>
<td>RICE</td>
<td>Reciprocating Internal Combustion Engine</td>
</tr>
<tr>
<td>Mg</td>
<td>milligram</td>
<td>scf</td>
<td>standard cubic foot</td>
</tr>
<tr>
<td>Mg/dscm</td>
<td>milligrams per dry standard cubic meter</td>
<td>SIC</td>
<td>Standard Industrial Code</td>
</tr>
<tr>
<td>MMBtu</td>
<td>million British thermal units</td>
<td>VE</td>
<td>visible emissions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>VOC</td>
<td>volatile organic compound</td>
</tr>
<tr>
<td></td>
<td></td>
<td>year</td>
<td>A period consisting of any 12-consecutive calendar months</td>
</tr>
</tbody>
</table>

AQGP-001, hard chrome platers
Max 4/3/07, KE 3/22/17, Max 3/24/17, Max 6/18/18
GENERAL
AIR CONTAMINANT DISCHARGE PERMIT
ASSESSMENT REPORT

HARD CHROMIUM ELECTROPLATING

Advanced Diamond Products
Dba Northwest Superabrasives
Source No. 205815
1360 West 1st Avenue
Eugene, Oregon 97402

SOURCE DESCRIPTION AND QUALIFICATION

1. This General Permit is designed to regulate air contaminant emissions from hard chromium electroplating tanks.

2. If there are other emissions activities occurring at the facility besides those regulated by this permit, the facility may be required to obtain a Simple or Standard ACDP or General ACDP Attachment(s), if applicable. This facility is also operating under General ACDP Attachment AQGP-026a for plating and polishing operations subject to the 6W NESHAP.

3. Facilities eligible for assignment to this permit have not experienced recurring or serious compliance problems.

ASSESSMENT OF EMISSIONS

4. Facilities assigned to this General Permit are sources of hexavalent chromium emissions.

5. LRAPA has assessed the level of emissions of all air pollutants from these facilities and determined that facilities complying with the operational limits and monitoring requirements of this permit have emission levels below the established levels of concern stated in LRAPA Title 12.

FACILITY EMISSION UNITS

6. The facility has the following equipment and/or activities regulated by the permit:
<table>
<thead>
<tr>
<th>Emission Unit (EU)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Chromium Plating Tank – 1 (Large)</td>
<td>Hard chrome plating tank controlled by a composite mesh-pad (CMP) mist eliminator system.</td>
</tr>
</tbody>
</table>

**SOURCE TEST RESULTS**

7. The facility has the following test results:

<table>
<thead>
<tr>
<th>Test Date</th>
<th>EU/Tank</th>
<th>Result</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 27, 2018</td>
<td>Tank #1</td>
<td>0.001 (not yet QA’d)</td>
<td>0.011 mg/dscm</td>
</tr>
<tr>
<td>December 13-14, 2005</td>
<td>Tank #1</td>
<td>0.0075 mg/dscm</td>
<td>0.015 mg/dscm</td>
</tr>
</tbody>
</table>

**SPECIFIC AIR PROGRAM APPLICABILITY**

8. This permit incorporates the National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations in 40 CFR Part 63, Subpart N (Hard and Decorative Chromium Electroplating and Chromium Anodizing) for hard chromium electroplating. EPA promulgated the NESHAP on January 25, 1995, and several amendments and/or corrections since initial promulgation. EPA finalized a residual risk and technology review on September 19, 2012. That review resulted in revisions to the emission limits for total chromium, addition of housekeeping requirements to minimize fugitive emissions, and a requirement to phase-out the use of perfluorooctane sulfonic acid based fume suppressants. The NESHAP, including amendments and corrections through July 1, 2017, were adopted as a local rule in LRAPA Title 44.

**NESHAP APPLICABILITY**

9. The NESHAP applies to each chromium electroplating or chromium anodizing tank at facilities performing hard chromium electroplating, decorative chromium electroplating, or chromium anodizing.

10. Process tanks associated with a chromium electroplating or chromium anodizing process, but in which neither chromium electroplating nor chromium anodizing is taking place, are not subject to the provisions of the NESHAP. Examples of such tanks include, but are not limited to, rinse tanks, etching tanks, and cleaning tanks. Likewise, tanks that contain a chromium solution, but in which no electrolytic process occurs, are not subject to this subpart. An example of such a tank is a chrome conversion coating tank where no electrical current is applied.

**NESHAP MACHINE DEFINITIONS AND CLASSIFICATION:**

11. The NESHAP splits chromium electroplating into two categories:
a. Decorative chromium electroplating: The process by which a thin layer of chrominum (typically 0.003 to 2.5 microns) is electrodeposited on a base metal, plastic, or undercoating to provide a bright surface with wear and tarnish resistance. In this process, the part(s) serves as the cathode in the electrolytic cell and the solution serves as the electrolyte. Typical current density applied during this process ranges from 540 to 2,400 Amperes per square meter (A/m²) for total plating times ranging between 0.5 to 5 minutes. Decorative chromium electroplating can be performed using either a chromic acid (or hexavalent chromium) bath or a trivalent chromium bath.

b. Hard chromium electroplating: A process by which a thick layer of chromium (typically 1.3 to 760 microns) is electrodeposited on a base material to provide a surface with functional properties such as wear resistance, a low coefficient of friction, hardness, and corrosion resistance. In this process, the part serves as the cathode in the electrolytic cell and the solution serves as the electrolyte. Hard chromium electroplating process is performed at current densities typically ranging from 1,600 to 6,500 A/m² for total plating times ranging from 20 minutes to 36 hours depending upon the desired plate thickness.

12. The NESHAP classifies facilities that perform hard chromium electroplating as follows:
   a. Large, hard chromium electroplating facility: A facility that has a maximum cumulative potential rectifier capacity greater than or equal to 60 million ampere-hours per year.
   b. Small, hard chromium electroplating facility: A facility that has a maximum cumulative potential rectifier capacity less than 60 million ampere-hours per year.

13. The NESHAP defines maximum cumulative potential rectifier capacity as the summation of the total installed rectifier capacity associated with the hard chromium electroplating tanks at a facility, expressed in amperes, multiplied by the maximum potential operating schedule of 8,400 hours per year and 0.7, which assumes that electrodes are energized 70% of the total operating time.

14. The emission standards in the NESHAP are more stringent for large, hard chromium electroplating facilities. The NESHAP allows a hard chromium electroplating facility to change its classification from large to small by demonstrating that actual rectifier utilization for the facility is less than 60 million ampere-hours per year. Initial demonstration must be made prior to January 25, 1997 and the actual rectifier utilization must be maintained below 60 million ampere-hours per year after January 25, 1997. If the actual rectifier utilization exceeds 60 million ampere-hours per year after January 25, 1997, the facility will be classified as large.

EMISSIONS

15. Particulate Matter (PM):
a. Emission factors from EPA's AP-42:

<table>
<thead>
<tr>
<th>Process</th>
<th>Total PM (lb/A-hr)</th>
<th>EF Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Chromium Electroplating</td>
<td>3.568E-5</td>
<td>C</td>
</tr>
<tr>
<td>-- With moisture extractor</td>
<td>3.996E-6</td>
<td>E</td>
</tr>
<tr>
<td>-- With polypropylene (poly) balls</td>
<td>1.256E-5</td>
<td>E</td>
</tr>
<tr>
<td>-- With fume suppressant</td>
<td>4.853E-6</td>
<td>E</td>
</tr>
<tr>
<td>-- With fume suppressant and poly balls</td>
<td>8.992E-7</td>
<td>E</td>
</tr>
<tr>
<td>-- With packed-bed scrubber</td>
<td>6.280E-7</td>
<td>E</td>
</tr>
<tr>
<td>-- With packed-bed scrubber, fume suppressant, and poly balls</td>
<td>7.850E-8</td>
<td>E</td>
</tr>
<tr>
<td>-- With chevron-blade mist eliminator</td>
<td>2.569E-6</td>
<td>E</td>
</tr>
<tr>
<td>-- With mesh-pad mist eliminator</td>
<td>3.711E-7</td>
<td>E</td>
</tr>
<tr>
<td>-- With packed-bed scrubber and mesh-pad eliminator</td>
<td>9.563E-10</td>
<td>E</td>
</tr>
<tr>
<td>-- With composite mesh-pad mist eliminator</td>
<td>1.142E-7</td>
<td>E</td>
</tr>
</tbody>
</table>

b. Annual PTE in lbs/yr for PM is calculated as follows:

\[
E_{PM} = \sum_{i=1}^{n} \left( EF_i \times RC_i \times 8760 \text{ hrs} / \text{ yr} \right)
\]

Where:

- \( E_{PM} \) = PM emissions, in lbs/yr
- \( EF_i \) = Emission factor for electroplating tank i, from table above or from a performance test on electroplating tank i, in lbs/Amperes-hr
- \( RC_i \) = Rectifier capacity for electroplating tank i, in Amperes
- \( n \) = The total number of electroplating tanks

c. Actual PM emissions in lbs/yr is calculated as follows:

\[
E_{PM} = \sum_{i=1}^{n} \left( EF_i \times RU_i \right)
\]

Where:

- \( E_{PM} \) = PM emissions, in lbs/yr
- \( EF_i \) = Emission factor for electroplating tank i, from table above or from a performance test on electroplating tank i, in lbs/Amperes-hr
- \( RU_i \) = Actual rectifier usage for electroplating tank i over a 12-month period, in Amperes-hr
n = The total number of electroplating tanks

16. Hazardous Air Pollutants (HAPs):

a. Emission factors from EPA’s AP-42:

<table>
<thead>
<tr>
<th>Process</th>
<th>Chromium Compounds (lb/A-hr)</th>
<th>EF Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Chromium Electroplating</td>
<td>1.713E-5</td>
<td>B</td>
</tr>
<tr>
<td>-- With moisture extractor</td>
<td>1.998E-6</td>
<td>D</td>
</tr>
<tr>
<td>-- With polypropylene (poly) balls</td>
<td>5.995E-6</td>
<td>D</td>
</tr>
<tr>
<td>-- With fume suppressant</td>
<td>2.284E-6</td>
<td>D</td>
</tr>
<tr>
<td>-- With fume suppressant and poly balls</td>
<td>4.282E-7</td>
<td>D</td>
</tr>
<tr>
<td>-- With packed-bed scrubber</td>
<td>2.997E-7</td>
<td>D</td>
</tr>
<tr>
<td>-- With packed-bed scrubber, fume suppressant, and poly balls</td>
<td>3.711E-8</td>
<td>D</td>
</tr>
<tr>
<td>-- With chevron-blade mist eliminator</td>
<td>1.256E-6</td>
<td>D</td>
</tr>
<tr>
<td>-- With mesh-pad mist eliminator</td>
<td>1.713E-7</td>
<td>D</td>
</tr>
<tr>
<td>-- With packed-bed scrubber and mesh-pad eliminator</td>
<td>4.567E-10</td>
<td>E</td>
</tr>
<tr>
<td>-- With composite mesh-pad mist eliminator</td>
<td>5.424E-8</td>
<td>D</td>
</tr>
</tbody>
</table>

b. Annual PTE in lbs/yr for chromium compounds is calculated as follows:

\[ E_{cr} = \sum_{i=1}^{n} (EF_i \times RC_i \times 8760 hours / yr) \]

Where

\[ E_{cr} = \text{Chromium emissions, in lbs/yr} \]
\[ EF_i = \text{Emission factor for electroplating tank } i, \text{ from table above or from a performance test on electroplating tank } i, \text{ in lbs/Amperees-hr} \]
\[ RC_i = \text{Rectifier capacity for electroplating tank } i, \text{ in Amperees} \]
\[ n = \text{Total number of electroplating tanks} \]

c. Actual chromium emissions in lbs/yr is calculated as follows:

\[ E_{cr} = \sum_{i=1}^{n} (EF_i \times RU_i) \]

Where:

\[ E_{cr} = \text{Chromium emissions, in lbs/yr} \]
\[ EF_i = \text{Emission factor for electroplating tank } i, \text{ from table above or from a performance test on electroplating tank } i, \text{ in lbs/Amperees-hr} \]
\[ RU_i = \text{Actual rectifier usage for electroplating tank} \ i \ \text{over a} \ 12- \text{month period, in Amperes-hr} \]
\[ n = \text{Total number of electroplating tanks} \]

**NESHAP EMISSION STANDARDS:**

17. Emission Limits:

   a. New hard chromium electroplating tanks: Limit the concentration of total chromium emitted to the atmosphere to 0.006 mg/dscm.

   b. Existing hard chromium electroplating tanks located at a large, hard chromium electroplating facility: Limit the concentration of total chromium emitted to the atmosphere to 0.011 mg/dscm.

   c. Existing hard chromium electroplating tanks located at a small, hard chromium electroplating facility: Limit the concentration of total chromium emitted to the atmosphere to 0.015 mg/dscm.

   d. If a chemical fume suppressant containing a wetting agent is used: Limit the surface tension of the electroplating or anodizing bath contained within the affected tank to exceed 40 dynes/cm as measured by a stalgmometer or 33 dynes/cm as measured by a tensiometer, at any time during tank operation.

   e. Enclosed tanks (in lieu of complying with the above emission limits): Limit the total chromium emissions to rate determined by using the calculation procedure in the permit.

   f. After September 21, 2015: Do not add PFOS-based fume suppressants to any affected open surface hard chromium electroplating tank.

18. Work Practices Standards:

   a. Follow specific work practices to ensure that control system and monitoring equipment are maintained and operated properly.

   b. Follow additional work practices that include quarterly inspections of control devices, ductwork, and monitoring equipment.

   c. Develop an operation and maintenance (O&M) plan.


**NESHAP COMPLIANCE DEMONSTRATION**

20. Initial Compliance:

   a. Perform an initial performance test.

   b. Establish operating parameters to be monitored in order to ensure continuous compliance.

21. Continuous Compliance:
a. Monitor operating parameters to demonstrate continuous compliance.
b. Conduct an ongoing compliance source test by November 1, 2023 for existing
   tanks not using wet suppressants:
c. Maintain the following records for 5 years:
   i. Records of actual rectifier utilization (if required);
   ii. Inspection records;
   iii. Equipment maintenance records;
   iv. Malfunction records;
   v. Records to demonstrate compliance with operation and maintenance plan;
   vi. Records of fume suppressant usage, manufacturer, and product name;
   vii. Records of occurrence, duration, and cause of excess emissions;
   viii. Performance test results; and,
   ix. Monitoring data.

NESHAP REPORTING:

22. The NESHAP specifies the information required for each report. Report forms are also
    available through LRAPA.
   a. Initial Notification Report: This report is used to notify EPA and LRAPA that a
      source is subject to the NESHAP. It also provides some preliminary facility and
      tank information. The notification is due according to the following schedule:
      i. New sources: Due as 60 days before construction is scheduled to
         commence.
   b. Initial Notification of Compliance Status Report: This report is due within 90 days
      after completion of the performance test, or within 30 days after the initial startup
      if a performance test is not required, and is used to demonstrate to EPA and
      LRAPA that the tank is in compliance with the NESHAP. It includes information
      on the how compliance was achieved, how it was initially demonstrated and the
      necessary ongoing demonstration measurements. For new facilities using add-on
      controls the report is due 270 days after startup.
   c. Performance test report: This report is required within 60 days of completing a
      performance test. EPA requires this report to be submitted via EPA’s WebFIRE
      database by using the Compliance and Emissions Data Reporting Interface
      (CEDRI) that is accessed through the EPA’s Central Data Exchange (CDX)
      (www.epa.gov/cdx).
   d. Ongoing Compliance Status Report: This report is required to be prepared and
      submitted to LRAPA by February 15 of each year that the permit is in effect.
e. **Exceedance Report:** This report should be prepared semiannually and submitted to LRAPA if:

i. The total duration of excess emissions exceeds 1% of the total operating time for the reporting period; and

ii. The total duration of malfunction of the add-on air pollution control device and monitoring equipment exceeds 5% of the total operating time.

**COMPLIANCE ASSURANCE**

23. Facilities assigned to the permit are required to maintain records of fuel use, upset conditions, and complaints received at the facility. These items are reported to LRAPA annually.

24. LRAPA staff perform site inspections of the permitted facilities on a routine basis, and more frequently if complaints are received.

**REVOCATION OF ASSIGNMENT**

25. Any facility that fails to demonstrate compliance, generates complaints, or fails to conform to the requirements and limitations contained in the permit may have its assignment to the General Permit revoked. The facility would then be subject to a higher, more stringent level of permitting.

**PUBLIC NOTICE**

26. General Air Contaminant Discharge Permits are part of the LRAPA State Implementation Plan. As part of the permitting process, the public will be provided at least 30 days to submit written comments. LRAPA will review any comments and may modify the permits in response to the comments.

AQGP-001r, hard chrome
10/30/18
### GENERAL AIR CONTAMINANT DISCHARGE PERMIT ATTACHMENT

Lane Regional Air Protection Agency
1010 Main Street
Springfield, OR 97477
Telephone: (541) 736-1056

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**ISSUED BY THE LANE REGIONAL AIR PROTECTION AGENCY**

Merlyn L. Hough, Director

Dated SEP - 2 2011

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<table>
<thead>
<tr>
<th>Title 37, Table 1</th>
<th>Source Category Description</th>
<th>NAICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part B, 82</td>
<td>Plating and polishing operations including electroplating, non-electrolytic plating, non-electrolytic metal coating processes, thermal spraying, dry mechanical polishing, electroforming, and electropolishing, subject to 40 CFR part 63 subpart WWWW, as adopted under LRAPA Title 44.</td>
<td>332116, 332722, 332811, 332812, 332813, 332913, 332999, 323111, 334412, 336412, 339911</td>
</tr>
</tbody>
</table>
1.0 PERMIT ASSIGNMENT

1.1. Qualifications
All of the following conditions must be met in order to qualify for assignment to this General Air Contaminant Discharge Permit (ACDP) Attachment:

a. The permittee is performing plating and polishing activities listed on the cover page of this permit, including supporting activities.

b. The plating and polishing facility uses or has emissions of compounds of one or more plating and polishing metal hazardous air pollutants (HAP), which means any compound of the following metals: cadmium, chromium, lead, manganese, and nickel. With the exception of lead, plating and polishing metal HAP also include any of these metals in the elemental form.

1.2. Exclusions
This permit does not apply to any of the following process units or operations:

a. Process units that are subject to the requirements of 40 CFR part 63 subpart N (National Emission Standards for
Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks).

b. Research and development process units.
c. Process units that are used strictly for educational purposes.
d. Thermal spraying conducted to repair surfaces.
e. Dry mechanical polishing conducted to restore the original finish to a surface.
f. Any plating or polishing process that does not use any material that contains cadmium, chromium, lead, or nickel in amounts of 0.1 percent or more by weight, or that contains manganese in amounts of 1.0 percent or more by weight, as reported on the Material Safety Data Sheet for the material.

1.3. Assignment

LRAPA will assign qualifying permittees to this permit that have and maintain a good record of compliance with the LRAPA’s Air Quality regulations and that LRAPA determines would be appropriately regulated by a General ACDP. LRAPA may rescind assignment of the permittee no longer meets the requirements of this attachment.

1.4. Permitted Activities

This permit allows the permittee to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, revoked or rescinded as long as conditions of this permit are complied with. If there are other emissions activities occurring at the site besides those listed on the cover page of this permit, the permittee may be required to obtain a Simple or Standard Permit or additional General ACDP Attachment(s), if applicable.

2.0 OPERATION AND MAINTENANCE

2.1. NESHAP Compliance date

An existing affected source must achieve compliance no later than July 1, 2010. A new affected source must achieve compliance no later than July 1, 2008 or upon initial startup, whichever is later.

2.2. Non-Cyanide Electroplating, Electroforming, or Electropolishing Tank

For each affected non-cyanide electroplating, electroforming, or electropolishing tank (hereafter referred to as an “electrolytic” process tank) that contains one or more of the plating and polishing metal HAP and operates at a pH of less than 12, the permittee must comply with the Condition 2.2a, 2.2b, or 2.2c, as practicable.
a. The permittee must use a wetting agent/fume suppressant in the bath of the affected tank as follows:
   i. The permittee must initially add the wetting agent/fume suppressant in the amounts recommended by the manufacturer for the specific type of electrolytic process.
   ii. The permittee must add wetting agent/fume suppressant in proportion to the other bath chemistry ingredients that are added to replenish the tank bath, or in proportions such that the bath contents are returned to that of the original make-up of the tank.
   iii. If a wetting agent/fume suppressant is included in the electrolytic process bath chemicals used in the affected tank according to the manufacturer’s instructions, it is not necessary to add additional wetting agent/fume suppressants to the tank to comply with this rule.

b. The permittee must capture and exhaust emissions from the affected tank to any one of the following emission control devices: composite mesh pad, packed bed scrubber, or mesh pad mist eliminator, as follows:
   i. The permittee must operate all capture and control devices according to the manufacturer’s specifications and operating instructions.
   ii. The permittee must keep the manufacturer’s specifications and operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

c. The permittee must cover the tank surface according to Condition 2.2c.i or 2.2c.ii.
   i. For batch electrolytic process tanks, the permittee must use a tank cover over all of the effective surface area of the tank for at least 95 percent of the electrolytic process operating time.
   ii. For continuous electrolytic process tanks, the permittee must cover at least 75 percent of the surface of the tank whenever the electrolytic process tank is in operation.

2.3. Flash or Short-Term

For each “flash” or short-term electroplating tank that uses or emits one or more of the plating and polishing metal HAP, the
permittee must comply with the requirements specified in Condition 2.3a or 2.3b, and implement the applicable management practices in Condition 2.8, as practicable.

a. The permittee must limit short-term or “flash” electroplating to no more than 1 cumulative hour per day or 3 cumulative minutes per hour of plating time.

b. The permittee must use a tank cover for at least 95 percent of the plating time.

2.4. Process Tank Used for Short-Term Electroplating and for Electrolytic Processing of Longer Duration

For each process tank that is used both for short-term electroplating and for electrolytic processing of longer duration (i.e., processing that is not short-term or flash electroplating) and contains one or more of the plating and polishing metal HAP, the permittee must meet the requirements specified in Condition 2.2 or 2.3, whichever apply to the process operation, and implement the applicable management practices in Condition 2.8, as practicable.

2.5. Electroplating Tank That Uses Cyanide

For each electroplating tank that uses cyanide in the plating bath, operates at pH greater than or equal to 12, and contains one or more of the plating and polishing metal HAP, the permittee must comply with the following requirements:

a. The permittee must measure and record the pH of the tank upon start-up of the bath. No additional pH measurements are required.

b. The permittee must implement the applicable management practices in Condition 2.8, as practicable.

2.6. Dry Mechanical Polishing Equipment

For each dry mechanical polishing machine that emits one or more of the plating and polishing metal HAP, the permittee must operate a capture system that captures particulate matter (PM) emissions from the dry mechanical polishing process and transports the emissions to a cartridge, fabric, or high efficiency particulate air (HEPA) filter, according to the following:

a. The permittee must operate all capture and control devices according to the manufacturer’s specifications and operating instructions.

b. The permittee must keep the manufacturer’s specifications and operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

2.7. Thermal Spraying Operation

For each thermal spraying operation that applies one or more of the plating and polishing metal HAP, the permittee must meet the following applicable requirements, and the applicable management practices in Condition 2.8.
a. For existing permanent thermal spraying operations, the permittee must operate a capture system that collects PM emissions from the thermal spraying process and transports the emissions to a water curtain, cartridge, fabric filter, or HEPA filter, according to the following:
   i. The permittee must operate all capture and control devices according to the manufacturer’s specifications and instructions.
   ii. The permittee must keep the manufacturer’s operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

b. For new permanent thermal spraying operations, the permittee must operate a capture system that collects PM emissions from the thermal spraying process and transports the emissions to a fabric, cartridge, or HEPA filter, according to the following:
   i. The permittee must operate all capture and control devices according to the manufacturer’s specifications and instructions.
   ii. The permittee must keep the manufacturer’s operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

c. For temporary thermal spraying operations, the permittee must meet the following applicable requirements:
   i. The permittee must document the amount of time the thermal spraying occurs each day, and where it is conducted.
   ii. The permittee must implement the applicable management practices specified in Condition 2.8, as practicable.

2.8. **Plating and Polishing Process Unit**

For each plating and polishing process unit that contains, applies, or emits one or more of the plating and polishing metal HAP, the permittee must implement the following applicable management practices, as practicable.

a. Minimize bath agitation when removing any parts processed in the tank, except when necessary to meet part quality requirements.

b. Maximize the draining of bath solution back into the tank, by extending drip time when removing parts from the tank; using drain boards (also known as drip shields); or withdrawing parts slowly from the tank, as practicable.

c. Optimize the design of 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).

d. Use tank covers, if already owned and available at the facility.

e. Minimize or reduce heating of process tanks, when doing so would not interrupt production or adversely affect part quality.

f. Perform regular repair, maintenance, and preventive maintenance of racks, barrels, and other equipment associated with affected sources.

g. Minimize bath contamination, such as through the prevention or quick recovery of dropped parts, use of distilled/de-ionized water, water filtration, pre-cleaning of parts to be plated, and thorough rinsing of pretreated parts to be plated.

h. Maintain quality control of chemicals, and chemical and other bath ingredient concentrations in the tanks.

i. Perform general good housekeeping, such as regular sweeping or vacuuming, if needed, and periodic washdowns.

j. Minimize spills and overflow of tanks.

k. Use squeegee rolls in continuous or reel-to-reel plating tanks.

l. Perform regular inspections to identify leaks and other opportunities for pollution prevention.

3.0 COMPLIANCE DEMONSTRATION

3.1. Continual Compliance

The permittee must be in compliance with the applicable management practices and equipment standards in this attachment at all times.

3.2. Initial Compliance Demonstration

To demonstrate initial compliance, the permittee must satisfy the following requirements:

a. For each electrolytic process tank that contains one or more of the plating and polishing metal HAP, is subject to the requirements in Condition 2.2, and uses a wetting agent/fume suppressant to comply, the permittee must demonstrate initial compliance as follows:

i. The permittee must add wetting agent/fume suppressant to the bath of each affected tank according to manufacturer’s specifications and instructions.
ii. The permittee must state in the Notification of Compliance Status that wetting agent/fume suppressant is added to the bath according to manufacturer’s specifications and instructions.

iii. The permittee must implement the applicable management practices specified in Condition 2.8 as practicable.

iv. The permittee must state in the Notification of Compliance Status that the applicable management practices specified in Condition 2.8 have been implemented, as practicable.

b. For each electroplating, electroforming, or electropolishing tank that contains one or more of the plating and polishing metal HAP, is subject to the requirements in Condition 2.2, and uses a control system to comply, the permittee must demonstrate initial compliance as follows:

i. The permittee must install a control system designed to capture emissions from the affected tank and exhaust them to a composite mesh pad, packed bed scrubber, or mesh pad mist eliminator.

ii. The permittee must state in the Notification of Compliance Status that the control system has been installed according to the manufacturer’s specifications and instructions.

iii. The permittee must implement the applicable management practices specified in Condition 2.8, as practicable.

iv. The permittee must state in the Notification of Compliance Status that the applicable management practices specified in Condition 2.8 have been implemented, as practicable.

v. The permittee must follow the manufacturer’s specifications and operating instructions for the control systems at all times.

c. For each batch electrolytic process tank that contains one or more of the plating and polishing metal HAP, which is subject to the requirements in Condition 2.2, and using a tank cover to comply, the permittee must demonstrate initial compliance as follows:

i. The permittee must install a tank cover on the
affected tank.

ii. The permittee must state in the Notification of Compliance Status that the tank is operated with the cover in place at least 95 percent of the electrolytic process operating time.

iii. The permittee must implement the applicable management practices specified in Condition 3.8, as practicable.

iv. The permittee must state in your Notification of Compliance Status that the applicable management practices specified in Condition 2.8 have been implemented, as practicable.

d. For each continuous electrolytic process tank that contains one or more of the plating and polishing metal HAP, is subject to the requirements in Condition 2.2, and the tank surface in covered to comply, the permittee must demonstrate initial compliance as follows:

i. The permittee must cover at least 75 percent of the surface area of the affected tank.

ii. The permittee must state in the Notification of Compliance Status that the tank is operated with the surface cover in place whenever the continuous electrolytic process is in operation.

iii. The permittee must implement the applicable management practices specified in Condition 2.8, as practicable.

iv. The permittee must state in the Notification of Compliance Status that the applicable management practices specified in Condition 2.8 have been implemented, as practicable.

e. For each flash or short-term electroplating tank that contains one or more of the plating and polishing metal HAP, is subject to the requirements in Condition 2.3, and compliance is achieved by limiting the plating time of the affected tank, the permittee must demonstrate initial compliance as follows:

i. The permittee must state in the Notification of Compliance Status that short-term or flash electroplating is limited to no more than 1 cumulative hour per day, or 3 cumulative minutes per hour of plating time.
ii. The permittee must implement the applicable management practices specified in Condition 2.8, as practicable.

iii. The permittee must state in the Notification of Compliance Status that the applicable management practices specified in Condition 2.8 have been implemented, as practicable.

f. For each flash or short-term electroplating tank that contains one or more of the plating and polishing metal HAP, is subject to the requirements in Condition 2.3, and complies by operating the affected tank with a cover, the permittee must demonstrate initial compliance as follows:

i. The permittee must install a tank cover on the affected tank.

ii. The permittee must state in the Notification of Compliance Status that the tank is operated with the cover in place at least 95 percent of the plating time.

iii. The permittee must implement the applicable management practices specified in Condition 2.8, as practicable.

iv. The permittee must state in the Notification of Compliance Status that the applicable management practices specified in Condition 2.8 have been implemented, as practicable.

g. For each tank that contains one or more of the plating and polishing metal HAP, uses cyanide in the bath, and is subject to the management practices specified in Condition 2.5, the permittee must demonstrate initial compliance as follows:

i. The permittee must report in the Notification of Compliance Status the pH of the bath solution that was measured at start-up, according to the requirements of Condition 2.5a.

ii. The permittee must implement the applicable management practices specified in Condition 2.8, as practicable.

iii. The permittee must state in the Notification of Compliance Status the applicable management practices specified in specified in Condition 2.8
have been implemented, as practicable.

h. For each dry mechanical polishing operation that emits one or more of the plating and polishing metal HAP and is subject to the requirements in Condition 2.6, the permittee must demonstrate initial compliance as follows:

i. The permittee must install a control system that is designed to capture PM emissions from the polishing operation and exhaust them to a cartridge, fabric, or HEPA filter.

ii. The permittee must state in the Notification of Compliance Status that the control system has been installed according to the manufacturer’s specifications and instructions.

iii. The permittee must keep the manufacturer’s operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

i. For each existing permanent thermal spraying operation that applies one or more of the plating and polishing metal HAP and is subject to the requirements in Condition 2.7a, the permittee must demonstrate initial compliance according to the following:

i. The permittee must install a control system that is designed to capture PM emissions from the thermal spraying operation and exhaust them to a water curtain, or a cartridge, fabric filter, or HEPA filter.

ii. The permittee must state in the Notification of Compliance Status that the control system is installed and operating according to the manufacturer’s specifications and instructions.

iii. The permittee must keep the manufacturer’s operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

j. For each new permanent thermal spraying operation that applies one or more of the plating and polishing metal HAP and is subject to the requirements in Condition 2.7b, the permittee must demonstrate initial compliance as follows:

i. The permittee must install and operate a control system that is designed to capture PM emissions
from the thermal spraying operation and exhaust them to a cartridge, fabric or HEPA filter.

ii. The permittee must state in the Notification of Compliance Status that the control system is installed and operated according to the manufacturer's specifications and instructions.

iii. The permittee must keep the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

k. For each temporary thermal spraying operation that applies one or more of the plating and polishing metal HAP and is subject to the requirements in Condition 2.7c, the permittee must demonstrate initial compliance as follows:

i. The permittee must implement the applicable management practices specified in Condition 2.8, as practicable.

ii. The permittee must state in the Notification of Compliance Status that the applicable management practices specified in Condition 2.8 have been implemented, as practicable.

3.3. Continuous Compliance Demonstration

To demonstrate continuous compliance with the applicable management practices and equipment standards, the permittee must satisfy the following requirements:

a. The permittee must always operate and maintain the affected source, including air pollution control equipment.

b. The permittee must prepare an annual compliance certification according to the requirements specified in Condition 5.3 and keep it in a readily-accessible location for inspector review.

c. For each electroplating, electroforming, or electropolishing tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in Condition 2.2 and if using a wetting agent/fume suppressant to comply, the permittee must demonstrate continuous compliance as follows:

i. The permittee must record that the wetting agent/fume suppressant was added to the tank bath in the original make-up of the tank.

ii. For tanks where the wetting agent/fume
suppressant is a separate ingredient from the other tank additives, the permittee must demonstrate continuous compliance as follows:

- The permittee must add wetting agent/fume suppressant in proportion to the other bath chemistry ingredients that are added to replenish the tank bath, as in the original make-up of the tank; or in proportion such that the bath is brought back to the original make-up of the tank.
- The permittee must record each addition of wetting agent/fume suppressant to the tank bath.

iii. The permittee must state in the annual compliance certification whether the wetting agent/fume suppressant was added to the bath according to the manufacturer’s specifications and instructions.

d. For each electroplating, electroforming, or electropolishing tank that contains one or more of the plating and polishing metal HAP, is subject to the requirements in Condition 2.2 and a control system is used to comply; an affected dry mechanical polishing operation that is subject to Condition 2.6; or an affected thermal spraying operation that is subject to Condition 2.7a or 2.7b; the permittee must demonstrate continuous compliance as follows:

i. The permittee must operate and maintain the control system according to the manufacturer’s specifications and instructions.

ii. Following any malfunction or failure of the capture or control devices to operate properly, the permittee must take immediate corrective action to return the equipment to normal operation according to the manufacturer’s specifications and operating instructions.

iii. The permittee must state in the annual certification that whether you have operated and maintained the control system according to the manufacturer’s specifications and instructions.

iv. The permittee must record the results of all control system inspections, deviations from proper operation, and any corrective action taken.

v. The permittee must keep the manufacturer’s
operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

e. For each flash or short-term electroplating tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in Condition 2.2c and complying by limiting the plating time for the affected tank, the permittee must demonstrate continuous compliance as follows:

i. The permittee must limit short-term or flash electroplating to no more than 1 cumulative hour per day or 3 cumulative minutes per hour of plating time.

ii. The permittee must record the times that the affected tank is operated each day.

iii. The permittee must state in the annual compliance certification whether you have limited short-term or flash electroplating to no more than 1 cumulative hour per day or 3 cumulative minutes per hour of plating time.

f. For each batch electrolytic process tank that is subject to the requirements of Condition 2.2 or a flash or short-term electroplating tank that is subject to the requirements in Condition 2.3 and complying by operating the affected tank with a cover, the permittee must demonstrate continuous compliance as follows:

i. The permittee must operate the tank with the cover in place at least 95 percent of the electrolytic process operating time.

ii. The permittee must record the times that the tank is operated and the times that the tank is covered on a daily basis.

iii. The permittee must state in the annual certification whether the tank has been operated with the cover in place at least 95 percent of the electrolytic process time.

g. For each continuous electrolytic process tank that is subject to the requirements in Condition 2.2, and complies using tank covers, the permittee must demonstrate continuous compliance as follows:

i. The permittee must operate the tank with at least
75 percent of the surface covered during all periods of electrolytic process operation.

ii. The permittee must state in the annual certification whether the tank has operated with 75 percent of the surface covered during all periods of electrolytic process operation.

h. For each tank or other operation that is subject to the management practices specified in Condition 2.8, the permittee must demonstrate continuous compliance as follows:

i. The permittee must implement the applicable management practices during all times that the affected tank or process is in operation.

ii. The permittee must state in the annual compliance certification whether the applicable management practices have been implemented, as practicable.

4.0 RECORDKEEPING REQUIREMENTS

4.1. General Compliance and Applicability Records

The permittee must keep the following records.

a. A copy of any Initial Notification and Notification of Compliance Status that was submitted and all documentation supporting those notifications.

b. The occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards.

c. The occurrence and duration of each malfunction of operation (i.e., process equipment) or the required air pollution control and monitoring equipment.

d. All required maintenance performed on the air pollution control and monitoring equipment.

e. The records required to show continuous compliance with each management practice and equipment standard that applies, as specified in Condition 3.3.

4.2. Retention of Records

The permittee must maintain files of all information (including all reports and notifications) required by this permit in a form
suitable and readily available for expeditious inspection and review. The files must be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

5.0 REPORTING REQUIREMENTS

5.1. Initial Notification The permittee must submit an Initial Notification by the dates specified and to include the following information. A form for this purpose is also available from LRAPA. The notification must be sent to the LRAPA address, as listed in Condition 6.2.

a. The name and address of the owner or operator.
b. The address (i.e., physical location) of the affected source.
c. An identification of 40 CFR part 63 subpart WWWWWW as the basis of the notification and the source's compliance date.
d. A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted.
e. The Initial Notification must include a description of the compliance method (e.g., use of wetting agent/fume suppressant) for each affected source.
f. For a facility that started up on or before July 1, 2008, the permittee must submit an Initial Notification prior to assignment to this permit.

g. For a facility that starts up after July 1, 2008, the permittee must submit an Initial Notification when you become subject.

5.2. Notification of Compliance Status The permittee must submit a Notification of Compliance Status as follows.

a. The Notification of Compliance Status must be submitted before the close of business on the compliance date specified in Condition 2.1.

b. The Notification of Compliance Status must include the following items:
5.3. **Annual Certification of Compliance Report**

The permittee must prepare an annual certification of compliance report according to the following. These reports do not need to be submitted unless a deviation from the requirements of this permit has occurred during the reporting year, in which case, the annual compliance report must be submitted along with the deviation report.

a. For each electrolytic process tank that is subject to the requirements in Condition 2.2a, the permittee must state in the annual compliance certification whether wetting agent/fume suppressant has been added to the bath according to the manufacturer's specifications and instructions.

b. For each of the following source(s), the permittee must state in the annual certification whether the control system has been operated according to the manufacturer's specifications and instructions.

   i. Electrolytic process tank that is subject to the requirements in Condition 2.2 and a control system is used to comply.

   ii. Dry mechanical polishing operation that is subject to Condition 2.6.

   iii. Permanent thermal spraying operation that is subject to Condition or 2.7a or 2.7b.

   c. For each flash or short-term electroplating tank that is
subject to the requirements in Condition 2.3 and is complying by limiting the plating time of the affected tank, the permittee must state in the annual compliance certification – whether short term or flash electroplating has been limited to no more than 1 cumulative hour per day or 3 cumulative minutes per hour of plating time.

d. For each batch electrolytic process tank that is subject to the requirements in Condition 2.2 or a flash or short-term electroplating tank that is subject to the requirements in Condition 2.3 and is complying by operating the affected tank with a cover, the permittee must state in the annual certification whether the tank has been operated with the cover in place at least 95 percent of the electrolytic process time.

e. For each continuous electrolytic process tank that is subject to the requirements of Condition 2.2 and is complying by operating the affected tank with a cover, the permittee must state in the annual certification whether at least 75 percent of the surface area of the tank has been covered during all periods of electrolytic process operation.

f. For each tank or other affected plating and polishing operation that is subject to the management practices specified in Condition 2.8, the permittee must state in the annual compliance certification whether the applicable management practices have been implemented, as practicable.

g. Each annual compliance report must be prepared no later than January 31 of the year immediately following the reporting period and kept in a readily accessible location for inspector review. If a deviation has occurred during the year, each annual compliance report must be submitted along with the deviation report, and postmarked or delivered no later than January 31 of the year immediately following the reporting period.

5.4. **Deviation Report**

If any deviations from the compliance requirements specified in this attachment occurred during the year, the permittee must report the deviations, along with the corrective action taken, and submit this report to LRAPA.
6.0 ADMINISTRATIVE REQUIREMENTS

6.1. Reattachment
A complete application for reassignment to this permit is due within 60 days after the permit is reissued. LRAPA will notify the permittee when the attachment is reissued.

a. If LRAPA is delinquent in renewing the attachment, the existing attachment will remain in effect and the permittee must comply with the conditions of the attachment until such time that the attachment is reissued and reattached to the permit.

b. The permittee may submit an application for either a Simple or Standard ACDP at any time, but the permittee must continue to comply with the attachment until LRAPA takes final action on the Simple or Standard ACDP application.

c. If a complete application for reassignment to the General ACDP or Simple or Standard ACDP is filed with LRAPA in a timely manner, the attachment will not be deemed to expire until final action has been taken on the application.

6.2. Permit Coordinator Address
All reports, notices, and applications should be directed to LRAPA as follows:
Lane Regional Air Protection Agency
1010 Main Street
Springfield, OR 97477
541-736-1056

6.3. LRAPA’s web site
Information about air quality permits and the LRAPA’s regulations may be obtained from the LRAPA web page at www.lrapa.org.

7.0 FEES

7.1. Annual Compliance Fee
The annual fee specified in LRAPA 37-0020, Table 2, Part 2 for a General ACDP Attachment is due on December 1 of each year this permit is in effect. An invoice indicating the amount, as determined by LRAPA regulations, will be mailed prior to this date.
8.0 GENERAL CONDITIONS AND DISCLAIMERS

8.1. Conflicting Conditions
In any instance in which there is an apparent conflict relative to conditions in this attachment, the most stringent conditions apply.

8.2. Attachment Availability
The permittee must have a copy of the attachment available at the facility at all times.

9.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACDP</td>
<td>Air Contaminant Discharge Permit</td>
</tr>
<tr>
<td>calendar</td>
<td>The 12-month period beginning January 1st and ending December 31st</td>
</tr>
<tr>
<td>year</td>
<td>The 12-month period beginning January 1st and ending December 31st</td>
</tr>
<tr>
<td>Cd</td>
<td>Cadmium</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>Cr</td>
<td>Chromium</td>
</tr>
<tr>
<td>DEQ</td>
<td>Oregon Department of Environmental Quality</td>
</tr>
<tr>
<td>EPA</td>
<td>US Environmental Protection Agency</td>
</tr>
<tr>
<td>HAP</td>
<td>Hazardous Air Pollutant as defined LRAPA Title 44</td>
</tr>
<tr>
<td>LRAPA</td>
<td>Lane Regional Air Protection Agency</td>
</tr>
<tr>
<td>metal HAP</td>
<td>Cadmium, chromium, nickel, manganese, and lead</td>
</tr>
<tr>
<td>Mn</td>
<td>Manganese</td>
</tr>
<tr>
<td>MSDS</td>
<td>material safety data sheet</td>
</tr>
<tr>
<td>NAICS</td>
<td>North American Industry Classification System</td>
</tr>
<tr>
<td>NESHAP</td>
<td>National Emissions Standards for Hazardous Air Pollutants</td>
</tr>
<tr>
<td>Ni</td>
<td>Nickel</td>
</tr>
<tr>
<td>OAR</td>
<td>Oregon Administrative Rules</td>
</tr>
<tr>
<td>ORS</td>
<td>Oregon Revised Statutes</td>
</tr>
<tr>
<td>Pb</td>
<td>Lead</td>
</tr>
<tr>
<td>SIC</td>
<td>Standard Industrial Code</td>
</tr>
<tr>
<td>target HAP</td>
<td>Cadmium, chromium, nickel, manganese, and lead</td>
</tr>
<tr>
<td>year</td>
<td>A period consisting of any 12-consecutive calendar months</td>
</tr>
</tbody>
</table>

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max 03/07/11: rcl 8/30/11
AQGP-026a plating and polishing general acdp.docx
GENERAL
AIR CONTAMINANT DISCHARGE PERMIT
ASSESSMENT REPORT
HARD CHROMIUM ELECTROPLATING

Northwest Industrial Chrome
Source No. 205815
1360 West 1st Avenue
Eugene, Oregon 97402

SOURCE DESCRIPTION AND QUALIFICATION

1. This General Permit is designed to regulate air contaminant emissions from hard chromium electroplating tanks.

2. If there are other emissions activities occurring at the facility besides those regulated by this permit, the facility may be required to obtain a Simple or Standard ACDP or General ACDP Attachment(s), if applicable. This facility is also operating under General ACDP Attachment AQGP-026a for plating and polishing operations subject to the 6W NESHAP.

3. Facilities eligible for assignment to this permit have not experienced recurring or serious compliance problems.

ASSESSMENT OF EMISSIONS

4. Facilities assigned to this General Permit are sources of hexavalent chromium emissions.

5. LRAPA has assessed the level of emissions of all air pollutants from these facilities and determined that facilities complying with the operational limits and monitoring requirements of this permit have emission levels below the established levels of concern stated in LRAPA Title 12.

FACILITY EMISSION UNITS

6. The facility has the following equipment and/or activities regulated by the permit:
<table>
<thead>
<tr>
<th>Emission Unit (EU)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Chromium Plating Tank – 1 (Large)</td>
<td>Hard chrome plating tank controlled by a composite mesh-pad (CMP) mist eliminator system.</td>
</tr>
</tbody>
</table>

SOURCE TEST RESULTS

7. The facility has the following test results:

<table>
<thead>
<tr>
<th>Test Date</th>
<th>EU/Tank</th>
<th>Result</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 27, 2018</td>
<td>Tank #1</td>
<td>0.001</td>
<td>0.011 mg/dscm</td>
</tr>
<tr>
<td>December 13-14, 2005</td>
<td>Tank #1</td>
<td>0.0075 mg/dscm</td>
<td>0.015 mg/dscm</td>
</tr>
</tbody>
</table>

SPECIFIC AIR PROGRAM APPLICABILITY

8. This permit incorporates the National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations in 40 CFR Part 63, Subpart N (Hard and Decorative Chromium Electroplating and Chromium Anodizing) for hard chromium electroplating. EPA promulgated the NESHAP on January 25, 1995, and several amendments and/or corrections since initial promulgation. EPA finalized a residual risk and technology review on September 19, 2012. That review resulted in revisions to the emission limits for total chromium, addition of housekeeping requirements to minimize fugitive emissions, and a requirement to phase-out the use of perfluorooctane sulfonic acid based fume suppressants. The NESHAP, including amendments and corrections through July 1, 2017, were adopted as a local rule in LRAPA Title 44.

NESHAP APPLICABILITY

9. The NESHAP applies to each chromium electroplating or chromium anodizing tank at facilities performing hard chromium electroplating, decorative chromium electroplating, or chromium anodizing.

10. Process tanks associated with a chromium electroplating or chromium anodizing process, but in which neither chromium electroplating nor chromium anodizing is taking place, are not subject to the provisions of the NESHAP. Examples of such tanks include, but are not limited to, rinse tanks, etching tanks, and cleaning tanks. Likewise, tanks that contain a chromium solution, but in which no electrolytic process occurs, are not subject to this subpart. An example of such a tank is a chrome conversion coating tank where no electrical current is applied.

NESHAP MACHINE DEFINITIONS AND CLASSIFICATION:

11. The NESHAP splits chromium electroplating into two categories:
a. Decorative chromium electroplating: The process by which a thin layer of chromium (typically 0.003 to 2.5 microns) is electrodeposited on a base metal, plastic, or undercoating to provide a bright surface with wear and tarnish resistance. In this process, the part(s) serves as the cathode in the electrolytic cell and the solution serves as the electrolyte. Typical current density applied during this process ranges from 540 to 2,400 Amperes per square meter (A/m²) for total plating times ranging between 0.5 to 5 minutes. Decorative chromium electroplating can be performed using either a chromic acid (or hexavalent chromium) bath or a trivalent chromium bath.

b. Hard chromium electroplating: A process by which a thick layer of chromium (typically 1.3 to 760 microns) is electrodeposited on a base material to provide a surface with functional properties such as wear resistance, a low coefficient of friction, hardness, and corrosion resistance. In this process, the part serves as the cathode in the electrolytic cell and the solution serves as the electrolyte. Hard chromium electroplating process is performed at current densities typically ranging from 1,600 to 6,500 A/m² for total plating times ranging from 20 minutes to 36 hours depending upon the desired plate thickness.

12. The NESHAP classifies facilities that perform hard chromium electroplating as follows:

a. Large, hard chromium electroplating facility: A facility that has a maximum cumulative potential rectifier capacity greater than or equal to 60 million ampere-hours per year.

b. Small, hard chromium electroplating facility: A facility that has a maximum cumulative potential rectifier capacity less than 60 million ampere-hours per year.

13. The NESHAP defines maximum cumulative potential rectifier capacity as the summation of the total installed rectifier capacity associated with the hard chromium electroplating tanks at a facility, expressed in amperes, multiplied by the maximum potential operating schedule of 8,400 hours per year and 0.7, which assumes that electrodes are energized 70% of the total operating time.

14. The emission standards in the NESHAP are more stringent for large, hard chromium electroplating facilities. The NESHAP allows a hard chromium electroplating facility to change its classification from large to small by demonstrating that actual rectifier utilization for the facility is less than 60 million ampere-hours per year. Initial demonstration must be made prior to January 25, 1997 and the actual rectifier utilization must be maintained below 60 million ampere-hours per year after January 25, 1997. If the actual rectifier utilization exceeds 60 million ampere-hours per year after January 25, 1997, the facility will be classified as large.

EMISSIONS

15. Particulate Matter (PM):
a. Emission factors from EPA’s AP-42:

<table>
<thead>
<tr>
<th>Process</th>
<th>Total PM (lb/A-hr)</th>
<th>EF Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Chromium Electroplating</td>
<td>3.568E-5</td>
<td>C</td>
</tr>
<tr>
<td>-- With moisture extractor</td>
<td>3.996E-6</td>
<td>E</td>
</tr>
<tr>
<td>-- With polypropylene (poly) balls</td>
<td>1.256E-5</td>
<td>E</td>
</tr>
<tr>
<td>-- With fume suppressant</td>
<td>4.853E-6</td>
<td>E</td>
</tr>
<tr>
<td>-- With fume suppressant and poly balls</td>
<td>8.992E-7</td>
<td>E</td>
</tr>
<tr>
<td>-- With packed-bed scrubber</td>
<td>6.280E-7</td>
<td>E</td>
</tr>
<tr>
<td>-- With packed-bed scrubber, fume suppressant, and poly balls</td>
<td>7.850E-8</td>
<td>E</td>
</tr>
<tr>
<td>-- With chevron-blade mist eliminator</td>
<td>2.569E-6</td>
<td>E</td>
</tr>
<tr>
<td>-- With mesh-pad mist eliminator</td>
<td>3.711E-7</td>
<td>E</td>
</tr>
<tr>
<td>-- With packed-bed scrubber and mesh-pad eliminator</td>
<td>9.563E-10</td>
<td>E</td>
</tr>
<tr>
<td>-- With composite mesh-pad mist eliminator</td>
<td>1.142E-7</td>
<td>E</td>
</tr>
</tbody>
</table>

b. Annual PTE in lbs/yr for PM is calculated as follows:

\[ E_{PM} = \sum_{i=1}^{n} \left( EF_i \times RC_i \times 8760 \text{hrs/yr} \right) \]

Where:

- \( E_{PM} \) = PM emissions, in lbs/yr
- \( EF_i \) = Emission factor for electroplating tank \( i \), from table above or from a performance test on electroplating tank \( i \), in lbs/Amperes-hr
- \( RC_i \) = Rectifier capacity for electroplating tank \( i \), in Amperes
- \( n \) = The total number of electroplating tanks

c. Actual PM emissions in lbs/yr is calculated as follows:

\[ E_{PM} = \sum_{i=1}^{n} \left( EF_i \times RU_i \right) \]

Where:

- \( E_{PM} \) = PM emissions, in lbs/yr
- \( EF_i \) = Emission factor for electroplating tank \( i \), from table above or from a performance test on electroplating tank \( i \), in lbs/Amperes-hr
- \( RU_i \) = Actual rectifier usage for electroplating tank \( i \) over a 12-month period, in Amperes-hr
n = The total number of electroplating tanks

16. Hazardous Air Pollutants (HAPs):

a. Emission factors from EPA’s AP-42:

<table>
<thead>
<tr>
<th>Process</th>
<th>Chromium Compounds (lb/A-hr)</th>
<th>EF Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Chromium Electroplating</td>
<td>1.713E-5</td>
<td>B</td>
</tr>
<tr>
<td>-- With moisture extractor</td>
<td>1.998E-6</td>
<td>D</td>
</tr>
<tr>
<td>-- With polypropylene (poly) balls</td>
<td>5.995E-6</td>
<td>D</td>
</tr>
<tr>
<td>-- With fume suppressant</td>
<td>2.284E-6</td>
<td>D</td>
</tr>
<tr>
<td>-- With fume suppressant and poly balls</td>
<td>4.282E-7</td>
<td>D</td>
</tr>
<tr>
<td>-- With packed-bed scrubber</td>
<td>2.997E-7</td>
<td>D</td>
</tr>
<tr>
<td>-- With packed-bed scrubber, fume suppressant, and poly balls</td>
<td>3.711E-8</td>
<td>D</td>
</tr>
<tr>
<td>-- With chevron-blade mist eliminator</td>
<td>1.256E-6</td>
<td>D</td>
</tr>
<tr>
<td>-- With mesh-pad mist eliminator</td>
<td>1.713E-7</td>
<td>D</td>
</tr>
<tr>
<td>-- With packed-bed scrubber and mesh-pad eliminator</td>
<td>4.567E-10</td>
<td>E</td>
</tr>
<tr>
<td>-- With composite mesh-pad mist eliminator</td>
<td>5.424E-8</td>
<td>D</td>
</tr>
</tbody>
</table>

b. Annual PTE in lbs/yr for chromium compounds is calculated as follows:

\[ E_{cr} = \sum_{i=1}^{n} (EF_i \times RC_i \times 8760 \text{hrs/yr}) \]

Where

\[ E_{cr} = \text{Chromium emissions, in lbs/yr} \]

\[ EF_i = \text{Emission factor for electroplating tank i, from table above or from a performance test on electroplating tank i, in lbs/Amperes-hr} \]

\[ RC_i = \text{Rectifier capacity for electroplating tank i, in Amperes} \]

\[ n = \text{Total number of electroplating tanks} \]

c. Actual chromium emissions in lbs/yr is calculated as follows:

\[ E_{cr} = \sum_{i=1}^{n} (EF_i \times RU_i) \]

Where:

\[ E_{cr} = \text{Chromium emissions, in lbs/yr} \]

\[ EF_i = \text{Emission factor for electroplating tank i, from table above or from a performance test on electroplating tank i, in lbs/Amperes-hr} \]
RU_i = Actual rectifier usage for electroplating tank i over a 12-month period, in Amperes-hr
n = Total number of electroplating tanks

**NESHAP EMISSION STANDARDS:**

17. **Emission Limits:**

   a. New hard chromium electroplating tanks: Limit the concentration of total chromium emitted to the atmosphere to 0.006 mg/dscm.

   b. Existing hard chromium electroplating tanks located at a large, hard chromium electroplating facility: Limit the concentration of total chromium emitted to the atmosphere to 0.011 mg/dscm.

   c. Existing hard chromium electroplating tanks located at a small, hard chromium electroplating facility: Limit the concentration of total chromium emitted to the atmosphere to 0.015 mg/dscm.

   d. If a chemical fume suppressant containing a wetting agent is used: Limit the surface tension of the electroplating or anodizing bath contained within the affected tank to exceed 40 dynes/cm as measured by a stalagmometer or 33 dynes/cm as measured by a tensiometer, at any time during tank operation.

   e. Enclosed tanks (in lieu of complying with the above emission limits): Limit the total chromium emissions to rate determined by using the calculation procedure in the permit.

   f. After September 21, 2015: Do not add PFOS-based fume suppressants to any affected open surface hard chromium electroplating tank.

18. **Work Practices Standards:**

   a. Follow specific work practices to ensure that control system and monitoring equipment are maintained and operated properly.

   b. Follow additional work practices that include quarterly inspections of control devices, ductwork, and monitoring equipment.

   c. Develop an operation and maintenance (O&M) plan.

19. **Housekeeping Standards:** Follow specific housekeeping standards to minimize fugitive emissions.

**NESHAP COMPLIANCE DEMONSTRATION**

20. **Initial Compliance:**

   a. Perform an initial performance test.

   b. Establish operating parameters to be monitored in order to ensure continuous compliance.

21. **Continuous Compliance:**
a. Monitor operating parameters to demonstrate continuous compliance.
b. Conduct an ongoing compliance source test by November 1, 2023 for existing tanks not using wet suppressants:
c. Maintain the following records for 5 years:
   i. Records of actual rectifier utilization (if required);
   ii. Inspection records;
   iii. Equipment maintenance records;
   iv. Malfunction records;
   v. Records to demonstrate compliance with operation and maintenance plan;
   vi. Records of fume suppressant usage, manufacturer, and product name;
   vii. Records of occurrence, duration, and cause of excess emissions;
   viii. Performance test results; and,
   ix. Monitoring data.

NESHAP REPORTING:

22. The NESHAP specifies the information required for each report. Report forms are also available through LRAPA.

   a. Initial Notification Report: This report is used to notify EPA and LRAPA that a source is subject to the NESHAP. It also provides some preliminary facility and tank information. The notification is due according to the following schedule:

      i. New sources: Due as 60 days before construction is scheduled to commence.

   b. Initial Notification of Compliance Status Report: This report is due within 90 days after completion of the performance test, or within 30 days after the initial startup if a performance test is not required, and is used to demonstrate to EPA and LRAPA that the tank is in compliance with the NESHAP. It includes information on the how compliance was achieved, how it was initially demonstrated and the necessary ongoing demonstration measurements. For new facilities using add-on controls the report is due 270 days after startup.

   c. Performance test report: This report is required within 60 days of completing a performance test. EPA requires this report to be submitted via EPA’s WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA’s Central Data Exchange (CDX) (www.epa.gov/cdx).

   d. Ongoing Compliance Status Report: This report is required to be prepared and submitted to LRAPA by February 15 of each year that the permit is in effect.
c. **Exceedance Report:** This report should be prepared semianually and submitted to LRAPA if:

i. The total duration of excess emissions exceeds 1% of the total operating time for the reporting period; and

ii. The total duration of malfunction of the add-on air pollution control device and monitoring equipment exceeds 5% of the total operating time.

**COMPLIANCE ASSURANCE**

23. Facilities assigned to the permit are required to maintain records of fuel use, upset conditions, and complaints received at the facility. These items are reported to LRAPA annually.

24. LRAPA staff perform site inspections of the permitted facilities on a routine basis, and more frequently if complaints are received.

**REVOCATION OF ASSIGNMENT**

25. Any facility that fails to demonstrate compliance, generates complaints, or fails to conform to the requirements and limitations contained in the permit may have its assignment to the General Permit revoked. The facility would then be subject to a higher, more stringent level of permitting.

**PUBLIC NOTICE**

26. General Air Contaminant Discharge Permits are part of the LRAPA State Implementation Plan. As part of the permitting process, the public will be provided at least 30 days to submit written comments. LRAPA will review any comments and may modify the permits in response to the comments.

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