

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

October 4, 2017

**PERMIT TO INSTALL
30-06D**

**ISSUED TO
Howmet Corporation**

**LOCATED AT
555 Benston Road
Whitehall, Michigan**

**IN THE COUNTY OF
Muskegon**

**STATE REGISTRATION NUMBER
B1891**

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203:

August 14, 2017

DATE PERMIT TO INSTALL APPROVED:

October 4, 2017

SIGNATURE:

DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO _{2e}	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environmental Quality	°F	Degrees Fahrenheit
EU	Emission Unit	gr	Grains
FG	Flexible Group	HAP	Hazardous Air Pollutant
GACS	Gallons of Applied Coating Solids	Hg	Mercury
GC	General Condition	hr	Hour
GHGs	Greenhouse Gases	HP	Horsepower
HVLP	High Volume Low Pressure*	H ₂ S	Hydrogen Sulfide
ID	Identification	kW	Kilowatt
IRSL	Initial Risk Screening Level	lb	Pound
ITSL	Initial Threshold Screening Level	m	Meter
LAER	Lowest Achievable Emission Rate	mg	Milligram
MACT	Maximum Achievable Control Technology	mm	Millimeter
MAERS	Michigan Air Emissions Reporting System	MM	Million
MAP	Malfunction Abatement Plan	MW	Megawatts
MDEQ	Michigan Department of Environmental Quality	NMOC	Non-methane Organic Compounds
MSDS	Material Safety Data Sheet	NO _x	Oxides of Nitrogen
NA	Not Applicable	ng	Nanogram
NAAQS	National Ambient Air Quality Standards	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM10	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSR	New Source Review	pph	Pounds per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO ₂	Sulfur Dioxide
SNCR	Selective Non-Catalytic Reduction	TAC	Toxic Air Contaminant
SRN	State Registration Number	Temp	Temperature
TEQ	Toxicity Equivalence Quotient	THC	Total Hydrocarbons
USEPA/EPA	United States Environmental Protection Agency	tpy	Tons per year
VE	Visible Emissions	µg	Microgram
		µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
 - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
 - b) A visible emission limit specified by an applicable federal new source performance standard.
 - c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Flexible Group ID
EU-APX	The Atmospheric Pressure Plasma Spray process (SC-404) applies metallic or ceramic coatings on castings. The exhaust is controlled by a dry cartridge dust collector.	NA
EU-VPX	The Vacuum Plasma Spray process (SC-403) is a metal deposition operation which applies protective coatings. Process consists of a vacuum chamber where the metal powder is injected into the plasma, melted, and propelled onto the part to form a coating.	NA
EU-HPA	Hydroxyplatinic acid plating process (HPA-401). The four plating tanks have filters in the exhaust ducts to control the emissions.	NA
EU-PLASMA	The plasma strip line (T-404) consisting of four hydrochloric acid tanks and four water rinse tanks.	FG-STRIPLINES
EU-ETCH	The strip etch line (T-404) consisting of one nitric acid tank, one 701 strip tank, one ferric chloride tank, one alkaline cleaner tank, two hydrochloric acid tanks, and three water rinse tanks.	FG-STRIPLINES
EU-HPA2	Hydroxyplatinic acid plating process (HPA-402). The two plating tanks are controlled by a packed bed scrubber (SV-HPA2).	NA
EU-LPPS	Low pressure plasma spray (SC-402) line equipped with various filters to control particulate matter emissions from the various operating scenarios.	NA
EU-CVD2	Chemical Vapor Deposition (CVD) Unit 2 with a working volume of 4.4 cubic feet. Hydrochloric acid and other toxic air contaminant emissions are controlled by the caustic solution in the liquid ring vacuum pump during operations under vacuum and by the caustic scrubber during operations at atmospheric pressure.	FG-CVD
EU-CVD3	Chemical Vapor Deposition (CVD) Unit 3 with a working volume of 34.9 cubic feet. Hydrochloric acid and other toxic air contaminant emissions are controlled by the caustic solution in the liquid ring vacuum pump during operations under vacuum and by the caustic scrubber during operations at atmospheric pressure.	FG-CVD
EU-CVD4	Chemical Vapor Deposition (CVD) Unit 4 with a working volume of 34.9 cubic feet. Hydrochloric acid and other toxic air contaminant emissions are controlled by the caustic solution in the liquid ring vacuum pump during operations under vacuum and by the caustic scrubber during operations at atmospheric pressure.	FG-CVD

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Flexible Group ID
EU-CVD5	Chemical Vapor Deposition (CVD) Unit 5 with a working volume of 4.4 cubic feet. Hydrochloric acid and other toxic air contaminant emissions are controlled by the caustic solution in the liquid ring vacuum pump during operations under vacuum and by the caustic scrubber during operations at atmospheric pressure.	FG-CVD
EU-CVD6	Chemical Vapor Deposition (CVD) Unit 6 with a working volume of 34.9 cubic feet. Hydrochloric acid and other toxic air contaminant emissions are controlled by the caustic solution in the liquid ring vacuum pump during operations under vacuum and by the caustic scrubber during operations at atmospheric pressure.	FG-CVD
EU-CVD7	Chemical Vapor Deposition (CVD) Unit 7 with a working volume of 34.9 cubic feet. Hydrochloric acid and other toxic air contaminant emissions are controlled by the caustic solution in the liquid ring vacuum pump during operations under vacuum and by the caustic scrubber during operations at atmospheric pressure.	FG-CVD
EU-CVD8	Chemical Vapor Deposition (CVD) Unit 8 with a working volume of 9.1 cubic feet. Hydrochloric acid and other toxic air contaminant emissions are controlled by the caustic solution in the liquid ring vacuum pump during operations under vacuum and by the caustic scrubber during operations at atmospheric pressure.	FG-CVD
EU-VCLEAN25	Liquid ring vacuum pump used to clean EU-CVD2 and EU-CVD5.	FG-CVD
EU-HVOF1	High velocity oxy fuel process (SC-405) consisting of one existing spray booth equipped with a filter to control particulate matter emissions.	NA
EU-TORCHBOOTH	Torch cutting booth controlled by a dust collector (DC-406)	NA
EU-ACIDROOM	TI-Ingot acid room controlled by a 15,000 cfm scrubber (T-401)	NA
EU-APX2	Atmospheric Pressure Plasma Spray Process that applies metallic coatings on castings. The exhaust is controlled by a dry cartridge dust collector.	NA
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.		

The following conditions apply to:
EU-APX

DESCRIPTION: The Atmospheric Pressure Plasma Spray process (SC-404) applies metallic or ceramic coatings on castings. The exhaust is controlled by a dry cartridge dust collector.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: Dry cartridge dust collector

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Nickel	0.10 pph ¹	Test Protocol*	EU-APX	GC 13	R 336.1225
*Test Protocol shall specify averaging time					

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EU-APX unless the dry cartridge dust collector is installed, maintained, and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1301, R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-TS211	18 ¹	34 ¹	R 336.1225

IX. OTHER REQUIREMENTS

NA

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to:
EU-VPX

DESCRIPTION: The Vacuum Plasma Spray process (SC-403) is a metal deposition operation which applies protective coatings. Process consists of a vacuum chamber where the metal powder is injected into the plasma, melted, and propelled onto the part to form a coating.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: Dry cartridge dust collector system

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.015 lbs per 1000 lbs of exhaust gas ^A	Test Protocol*	EU-VPX	GC 13	R 336.1331(1)(c)
2. PM10	0.1 tpy ¹	12-month rolling time period as determined at the end of each calendar month	EU-VPX	SC VI.4	R 336.1225

*Test Protocol shall specify averaging time
^ACalculated on a dry gas basis

II. MATERIAL LIMITS

1. The spray powder usage for EU-VPX shall not exceed 350,400 pounds per 12-month rolling time period as determined at the end of each calendar month.¹ **(R 336.1225)**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall maintain and operate EU-VPX according to the procedures outlined in the previously submitted operation and maintenance plan. This plan includes each operating scenario and the filter(s) required for each scenario. **(R 336.1225, R 336.1331, R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EU-VPX unless the dry cartridge dust collector system is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes maintaining the dust collector system pressure drop in accordance with the operation and maintenance plan specified in SC III.1. **(R 336.1225, R 336.1331, R 336.1910)**
2. The permittee shall equip and maintain the EU-VPX dry cartridge dust collector system with a device which measures the pressure drop. **(R 336.1225, R 336.1331, R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1225, R 336.1331, R 336.1910)**
2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the amount of spray powder used in EU-VPX. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1225)**
3. The permittee shall keep, in a satisfactory manner, all records of the pressure drop across the EU-VPX dry cartridge dust collector system, in accordance with the operation and maintenance plan, on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1331, R 336.1910)**
4. The permittee shall calculate the PM10 emission rate from EU-VPX monthly, for the preceding 12-month rolling time period, using the method given below or an alternate method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1225)**

$$\text{PM10 Emissions/Month} = \text{Throughput (lbs of spray powder used in VPX)} * (1 - 0.33 \text{ deposition efficiency}) * (1 - 0.999 \text{ dust collector control efficiency})$$

$$\text{PM10 tpy (12 month rolling time period)} = (\text{Sum of 12 previous months PM10 emissions from VPX})$$

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-VPX1	4 ¹	33 ¹	R 336.1225
2. SV-VPX2	16 ¹	30 ¹	R 336.1225

IX. OTHER REQUIREMENTS

NA

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to:
EU-HPA

DESCRIPTION: Hydroxyplatinic acid plating process (HPA-401). The four plating tanks have filters in the exhaust ducts to control the emissions.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: The four plating tanks have filters in the exhaust ducts

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Platinum	0.028 pounds per month ¹	Monthly	EU-HPA	SC VI.3	R 336.1225

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall maintain and operate EU-HPA according to the procedures outlined in the previously submitted operation and maintenance plan. This plan includes the pressure drop range required for the filter(s) to obtain 90 percent control of the platinum emissions. **(R 336.1225, R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate any EU-HPA platinum plating tank unless the corresponding filter media is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes maintaining the filter(s) pressure drop in accordance with the operation and maintenance plan specified in SC III.1. **(R 336.1225, R 336.1910)**
2. The permittee shall equip and maintain each EU-HPA filter media with a device which measures the pressure drop. **(R 336.1225, R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1225, R 336.1910)**

2. The permittee shall keep, in a satisfactory manner, all records of the pressure drop across each EU-HPA filter media, in accordance with the operation and maintenance plan, on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1910)**
3. The permittee shall calculate the platinum emission rate from EU-HPA monthly, using the method given below or an alternate method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ **(R 336.1225)**

$$\text{EU-HPA Platinum Emissions/Month} = \text{EU-HPA Operating hours/month} * (0.000092 \text{ lb platinum/hr uncontrolled}) * (1 - 0.9 \text{ mist eliminator efficiency})$$

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-HPA	16 ¹	32 ¹	R 336.1225

IX. OTHER REQUIREMENTS

NA

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to:
EU-HPA2

DESCRIPTION: Hydroxyplatinic acid plating process (HPA-402). The two plating tanks are controlled by a packed bed scrubber (SV-HPA2).

Flexible Group ID:

POLLUTION CONTROL EQUIPMENT: Packed bed scrubber (SV-HPA2)

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Platinum	0.037 pounds per month ¹	Monthly	EU-HPA2	SC VI.3	R 336.1225

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall maintain and operate EU-HPA2 according to the procedures outlined in the previously submitted operation and maintenance plan. This plan shall include the pressure drop range and minimum liquid flow rate required for the packed bed scrubber to obtain 90 percent control of the platinum emissions. **(R 336.1225, R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate any EU-HPA2 platinum plating tanks unless the corresponding packed bed scrubber is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes maintaining the scrubber pressure drop and liquid flow rate in accordance with the operation and maintenance plan specified in SC III.1. **(R 336.1225, R 336.1910)**
2. The permittee shall equip and maintain each EU-HPA2 packed bed scrubber with devices which measure the pressure drop and scrubber liquid flow rate. **(R 336.1225, R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1225, R 336.1910)**

2. The permittee shall keep, in a satisfactory manner, all records of the pressure drop across the scrubber and liquid flow rate for each EU-HPA2 packed bed scrubber, in accordance with the operation and maintenance plan, on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1910)**
3. The permittee shall calculate the platinum emission rate from EU-HPA2 monthly, using the method given below or an alternate method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ **(R 336.1225)**

$$\text{EU-HPA2 Platinum Emissions/Month} = \text{EU-HPA2 operating hours/month} * (0.00000738 \text{ lb platinum/hr uncontrolled}) * (1 - 0.9 \text{ scrubber efficiency})$$

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-HPA2	14 x 19 ¹	33 ¹	R 336.1225

IX. OTHER REQUIREMENTS

NA

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to:
EU-LPPS

DESCRIPTION: Low pressure plasma spray (SC-402) line equipped with various filters to control particulate matter emissions from the various operating scenarios.

Flexible Group ID:

POLLUTION CONTROL EQUIPMENT: Various filters

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.00075 lbs per 1000 lbs of exhaust gas ^A	Test Protocol*	EU-LPPS	GC 13	R 336.1331(1)(c)
2. PM10	0.1 tpy	12-month rolling time period as determined at the end of each calendar month	EU-LPPS	SC VI.4	R 336.1225
* Test Protocol shall specify averaging time ^A Calculated on a dry gas basis					

II. MATERIAL LIMITS

1. The spray powder usage for EU-LPPS shall not exceed 96,360 pounds per 12-month rolling time period as determined at the end of each calendar month.¹ **(R 336.1225)**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall maintain and operate EU-LPPS according to the procedures outlined in the previously submitted operation and maintenance plan. This plan includes each operating scenario and the filter(s) required for each scenario. **(R 336.1225, R 336.1331, R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EU-LPPS unless each filter for the current operating scenario is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes maintaining the pressure drop of dust collector system and the vacuum system that evacuates the spray chamber for the current operating scenario in accordance with the operation and maintenance plan specified in SC III.1. **(R 336.1225, R 336.1331, R 336.1910)**
2. The permittee shall equip and maintain each EU-LPPS dust collection system and the vacuum system that evacuates the spray chamber with a device which measures the pressure drop. **(R 336.1225, R 336.1331, R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1225, R 336.1331, R 336.1910)**
2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the amount of spray powder used in EU-LPPS. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ **(R 336.1225)**
3. The permittee shall keep, in a satisfactory manner, all records of the pressure drop across the EU-LPPS dust collection system and the vacuum system that evacuates the spray chamber, in accordance with the operation and maintenance plan, on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1331, R 336.1910)**
4. The permittee shall calculate the PM10 emission rate from EU-LPPS monthly, for the preceding 12-month rolling time period, using the method given below or an alternate method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ **(R 336.1225)**

$$\text{PM10 Emissions/Month} = (\text{Throughput lbs of spray powder used in LPPS}) * (1 - 0.33 \text{ deposition efficiency}) * (1 - 0.999 \text{ dust collector control efficiency})$$

$$\text{PM10 tpy (12 month rolling time period)} = (\text{Sum of 12 previous months PM10 emissions from LPPS})$$

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-LPPS1	4 ¹	30.5 ¹	R 336.1225
2. SV-LPPS2	4 ¹	25 ¹	R 336.1225
3. SV-LPPS3	15 ¹	30 ¹	R 336.1225

IX. OTHER REQUIREMENTS

NA

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to:
EU-HVOF1

DESCRIPTION: High velocity oxy fuel process (SC-405) consisting of one existing spray booth equipped with a filter to control particulate matter emissions.

Flexible Group ID:

POLLUTION CONTROL EQUIPMENT: Filter

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.001 lbs per 1000 lbs of exhaust gas ^A	Test Protocol*	EU-HVOF1	GC 13	R 336.1331(1)(c)
2. PM10	0.1 tpy	12-month rolling time period as determined at the end of each calendar month	EU-HVOF1	SC VI.4	R 336.1225
* Test Protocol shall specify averaging time ^A Calculated on a dry gas basis					

3. Visible emissions from EU-HVOF1 shall not exceed a six-minute average of 5 percent opacity. **(R 336.1301, R 336.1331)**

II. MATERIAL LIMITS

1. The spray powder usage for EU-HVOF1 shall not exceed 350,400 pounds per 12-month rolling time period as determined at the end of each calendar month.¹ **(R 336.1225)**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall maintain and operate the EU-HVOF1 filter according to the procedures outlined in the previously submitted operation and maintenance plan. This plan includes the required pressure drop range for the filter. **(R 336.1225, R 336.1331, R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EU-HVOF1 unless the filter is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes maintaining the pressure drop in accordance with the operation and maintenance plan specified in SC III.1. **(R 336.1225, R 336.1331, R 336.1910)**
2. The permittee shall equip and maintain the EU-HVOF1 filter with a device which measures the pressure drop. **(R 336.1225, R 336.1331, R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1225, R 336.1331, R 336.1910)**
2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the amount of spray powder used in EU-HVOF1. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1225)**
3. The permittee shall keep, in a satisfactory manner, all records of the pressure drop across the EU-HVOF1 filter, in accordance with the operation and maintenance plan, on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1331, R 336.1910)**
4. The permittee shall calculate the PM10 emission rate from EU-HVOF1 monthly, for the preceding 12-month rolling time period, using the method given below or an alternate method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ **(R 336.1225)**

$PM10 \text{ Emissions/Month} = \text{Throughput (lbs of spray powder used in HVOF)} * (1 - 0.33 \text{ deposition efficiency}) * (1 - 0.999 \text{ dust collector control efficiency})$

$PM10 \text{ tpy (12 month rolling time period)} = (\text{Sum of 12 previous months PM10 emissions from HVOF})$

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-HVOF1	18 ¹	30 ¹	R 336.1225

IX. OTHER REQUIREMENTS

NA

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to:
EU-APX2

DESCRIPTION: Atmospheric Pressure Plasma Spray Process that applies metallic coatings on castings. The exhaust is controlled by a dry cartridge dust collector.

Flexible Group ID:

POLLUTION CONTROL EQUIPMENT: Dry cartridge dust collector

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.001 lbs per 1000 lbs of exhaust gas ^A	Test Protocol*	EU-APX2	GC 13	R 336.1331(1)(c)
2. PM10	0.014 pph	Test Protocol*	EU-APX2	GC 13	R 336.1225, 40 CFR 52.21(c)&(d)
3. PM2.5	0.014 pph	Test Protocol*	EU-APX2	GC 13	R 336.1225, 40 CFR 52.21(c)&(d)
4. Nickel	0.0017 pph	Test Protocol*	EU-APX2	GC 13	R 336.1225
* Test Protocol shall specify averaging time ^A Calculated on a dry gas basis					

5. Visible emissions from EU-APX2 shall not exceed a six-minute average of 5 percent opacity. **(R 336.1301, R 336.1331)**

II. MATERIAL LIMITS

1. The spray powder usage for EU-APX2 shall not exceed 74,000 pounds per 12-month rolling time period as determined at the end of each calendar month.¹ **(R 336.1225)**

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EU-APX2 unless the dust collector is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes maintaining the pressure drop in accordance with manufacturer's specifications. **(R 336.1225, R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c)&(d))**
2. The permittee shall equip and maintain the EU-APX2 dust collector with a device which measures the pressure drop. **(R 336.1225, R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c)&(d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1225, R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**
2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the amount of spray powder used in EU-APX2. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ **(R 336.1225)**
3. The permittee shall keep, in a satisfactory manner, weekly records of the pressure drop across the EU-APX2 dust collector on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-APX2	20	34	R 336.1225, 40 CFR 52.21(c)&(d)

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63 Subparts A and WWWW (Area Source Standards for Plating and Polishing Operations), as they apply to EU-APX2. **(40 CFR Part 63 Subparts A & WWWW)**

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-CVD	Chemical Vapor Deposition (CVD) Units 2 through 8 and EU-VCLEAN25, which is used to clean EU-CVD2 and EU-CVD5.	EU-CVD2, EU-CVD3, EU-CVD4, EU-CVD5, EU-CVD6, EU-CVD7, EU-CVD8, EU-VCLEAN25
FG-STRIPLINES	The plasma strip line (T-404) consisting of four hydrochloric acid tanks and four water rinse tanks and the strip etch line (T-404) consisting of one nitric acid tank, one 701 strip tank, one ferric chloride tank, one alkaline cleaner tank, two hydrochloric acid tanks, and three water rinse tanks.	EU-PLASMA, EU-ETCH
FG-FACILITY4	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	

The following conditions apply to:
FG-CVD

DESCRIPTION: Chemical Vapor Deposition (CVD) Units 2 through 8 and EU-VCLEAN25, which is used to clean EU-CVD2 and EU-CVD5.

Emission Units: EU-CVD2, EU-CVD3, EU-CVD4, EU-CVD5, EU-CVD6, EU-CVD7, EU-CVD8, EU-VCLEAN25

POLLUTION CONTROL EQUIPMENT: Liquid ring vacuum pumps and caustic scrubbers

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Hydrogen chloride	0.6 tpy ¹	12-month rolling time period as determined at the end of each calendar month	FG-CVD	SC VI.3	R 336.1225
2. Aluminum chloride	1.1 tpy ¹	12-month rolling time period as determined at the end of each calendar month	FG-CVD	SC VI.3	R 336.1225

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall maintain and operate each FG-CVD liquid ring vacuum pump and caustic scrubber according to the procedures outlined in the previously submitted operation and maintenance plan. This plan includes the pH range required for the liquid ring vacuum pump(s) and scrubber(s) to obtain 99.9 percent control of the acid emissions. **(R 336.1224, R 336.1225, R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate any FG-CVD unit under vacuum or EU-VCLEAN25 unless the associated liquid ring vacuum pump is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes maintaining the pH of the associated caustic solution in accordance with the operation and maintenance plan specified in SC III.1. **(R 336.1224, R 336.1225, R 336.1910)**
2. The permittee shall not operate any FG-CVD unit at atmospheric pressure unless the associated caustic scrubber is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes maintaining the pH of the associated caustic solution in accordance with the operation and maintenance plan specified in SC III.1. **(R 336.1224, R 336.1225, R 336.1910)**
3. The permittee shall equip and maintain each FG-CVD liquid ring vacuum pump and caustic scrubber with devices which measure the pH of each caustic solution. **(R 336.1224, R 336.1225, R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1225, R 336.1910)**
2. The permittee shall keep, in a satisfactory manner, all records of the pH of each caustic solution in all liquid ring vacuum pumps and caustic scrubbers (including the pH before and after each batch), in accordance with the operation and maintenance plan, on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1910)**
3. The permittee shall calculate the hydrogen chloride and aluminum chloride emission rates from FG-CVD monthly, for the preceding 12-month rolling time period, using the method given below or an alternate method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ **(R 336.1225)**

Calculations for EU-CVD2, EU-CVD3, EU-CVD4, EU-CVD5, EU-CVD6, and EU-CVD7

HCl emissions/month = CVD2-7 operating hours/month * (10.28 lb HCl / hr) * (1-.999 control efficiency)

HCl tpy (12 month rolling time period) = (Sum of 12 previous months HCl emissions from CVD2-7)

AlCl₃ emissions/month = CVD2-7 operating hours/month * (12.53 lb AlCl₃ / hr) * (1-.999 control efficiency)

AlCl₃ tpy (12 month rolling time period) = (Sum of 12 previous months AlCl₃ emissions from CVD2-7)

Calculations for EU-CVD8

HCl emissions/month = CVD8 operating hours/month * (8.84 lb HCl / hr) * (1-.999 control efficiency)

HCl tpy (12 month rolling time period) = (Sum of 12 previous months HCl emissions from CVD8)

AlCl₃ emissions/month = CVD8 operating hours/month * (7.53 lb AlCl₃ / hr) * (1-.999 control efficiency)

AlCl₃ tpy (12 month rolling time period) = (Sum of 12 previous months AlCl₃ emissions from CVD8)

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-TS231	10 ¹	33 ¹	R 336.1225
2. SV-TS244 ^A	1.5 ¹	26.5 ¹	R 336.1225
3. SV-TS259 ^A	2.5 ¹	24.5 ¹	R 336.1225
4. SV-TS260 ^A	2.5 ¹	24.5 ¹	R 336.1225
5. SV-TS261 ^A	2.5 ¹	24.5 ¹	R 336.1225
6. SV-TS262 ^A	2.5 ¹	24.5 ¹	R 336.1225
7. SV-TS266	10 ¹	33 ¹	R 336.1225
8. SV-TS218	10 ¹	33 ¹	R 336.1225
9. SV-TS222 ^A	4 ¹	27 ¹	R 336.1225
10. SV-TS224 ^A	4 ¹	27 ¹	R 336.1225
11. SV-TS232 ^A	3 ¹	27 ¹	R 336.1225
12. SV-TS272	10 ¹	48 ¹	R 336.1225
13. SV-TS273 ^A	4 ¹	43 ¹	R 336.1225
14. SV-TS279 ^A	4 ¹	42 ¹	R 336.1225
15. SV-TS248	2 ¹	33 ¹	R 336.1225
16. SV-TS702	10 ¹	48 ¹	R 336.1225
17. SV-TS705 ^A	NA ¹	42 ¹	R 336.1225
18. SV-TS706 ^A	NA ¹	42 ¹	R 336.1225
19. SV-TS801	10	48	R 336.1225, 40 CFR 52.21(c)&(d)
20. SV-TS805 ^A	3	42	R 336.1225, 40 CFR 52.21(c)&(d)
21. SV-TS806 ^A	3	42	R 336.1225, 40 CFR 52.21(c)&(d)

^A The exhaust gases from this stack are not required to be discharged unobstructed, vertically upwards.

IX. OTHER REQUIREMENTS

NA

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to:
FG-STRIPLINES

DESCRIPTION: The plasma strip line (T-404) consisting of four hydrochloric acid tanks and four water rinse tanks and the strip etch line (T-404) consisting of one nitric acid tank, one 701 strip tank, one ferric chloride tank, one alkaline cleaner tank, two hydrochloric acid tanks, and three water rinse tanks.

Emission Units: EU-PLASMA, EU-ETCH

POLLUTION CONTROL EQUIPMENT: Scrubbers

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Hydrogen chloride	300 pounds per month ¹	Monthly	FG-STRIPLINES	SC VI.3	R 336.1225

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall maintain and operate each FG-STRIPLINES scrubber according to the procedures outlined in the previously submitted operation and maintenance plan. This plan includes the pressure drop range, minimum liquid flow rate, and pH range required for the scrubber(s) to obtain 98 percent control of the acid emissions. **(R 336.1224, R 336.1225, R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate any FG-STRIPLINES acid tank unless the associated scrubber is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes maintaining scrubber(s) pressure drop, liquid flow rate, and pH in accordance with the operation and maintenance plan specified in SC III.1. **(R 336.1224, R 336.1225, R 336.1910)**
2. The permittee shall equip and maintain each FG-STRIPLINES scrubber with devices which measure the pressure drop, scrubbing liquid pH, and scrubber liquid flow rate. **(R 336.1224, R 336.1225, R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1225, R 336.1910)**

2. The permittee shall keep, in a satisfactory manner, all records of the pressure drop across the scrubber, scrubbing liquid pH, and liquid flow rate for each FG-STRIPLINES scrubber, in accordance with the operation and maintenance plan, on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1910)**
3. The permittee shall calculate the hydrogen chloride emission rate from FG-STRIPLINES monthly, using the method given below or an alternate method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ **(R 336.1225)**

$$\text{HCl Emissions/Month} = \text{FG-STRIPLINES dept. operating hours/month} * (0.6 \text{ lb HCl / hr uncontrolled}) * (1 - 0.98 \text{ scrubber control efficiency})$$

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-PLASMA	24 ¹	33 ¹	R 336.1225
2. SV-ETCH	24 ¹	33 ¹	R 336.1225

IX. OTHER REQUIREMENTS

NA

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply Source-Wide to:
FG-FACILITY4

POLLUTION CONTROL EQUIPMENT:

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM10	15 tpy	12-month rolling time period as determined at the end of each calendar month	FG-FACILITY4	SC VI.2	R 336.1205(3)
2. Each Individual HAP	6.5 tpy	12-month rolling time period as determined at the end of each calendar month	FG-FACILITY4	SC VI.2	R 336.1205(3)
3. Total HAPs	Less than 10 tpy	12-month rolling time period as determined at the end of each calendar month	FG-FACILITY4	SC VI.2	R 336.1205(3)

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(3))**
2. The permittee shall calculate the PM10, individual HAP, and total HAPs emission rates from FG-FACILITY4 monthly, for the preceding 12-month rolling time period, using a method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(3))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

NA

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63 Subparts A and WWWW (Area Source Standards for Plating and Polishing Operations), as they apply to FG-FACILITY4. **(40 CFR Part 63 Subparts A & WWWW)**

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).