

PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY

33 North Stone Avenue, Suite 700, Tucson, Arizona 85701, Phone: (520) 724-7400

AIR QUALITY PERMIT

(As required by Title 17.12, Article II, Pima County Code)

ISSUED TO:

HVF PRECIOUS METALS LLC

**5657 SOUTH WILMOT ROAD
TUCSON, ARIZONA 85706**

This air quality permit does not relieve applicant of responsibility for meeting all air pollution regulations

THIS PERMIT ISSUED SUBJECT TO THE FOLLOWING Conditions contained in Attachments 1 and 2

PDEQ PERMIT NUMBER 1902

PERMIT CLASS III

PERMIT ISSUED XXXXXX XX, 2016

EXPIRATION DATE XXXXXX XX, 2021

SIGNATURE

Rupesh Patel, Air Permit Manager, PDEQ

TITLE

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SUMMARY

This permit is the renewal 5-year air quality permit issued to HVF Precious Metals LLC., the Permittee. This facility is an existing **Class III, Stationary, True Minor** source for all regulated air pollutants.

The facility is a metal recycling plant; specifically for the recovery of ferrous, hazardous, non-hazardous and precious metals. All materials stored, processed and transported off site are commodities of commercial value. The process for the recovery of precious metals is presented in the December 13, 2012 Operations and Maintenance plan. The facility emission control operations include eight (8) separate baghouse operations and two (2) scrubber systems. Facility operations are grouped into the following process flow categories:

1. Base Metals Processing;
2. Smelting Process, and
3. Refining Process

A process flow diagram is presented in Attachment 1 of the technical support document accompanying this permit.

The following emission rates are for reference purposes only and are used to establish baseline emissions for the source. They are not intended to be enforceable emission limits unless otherwise noted in the Specific Conditions of this permit.

Pollutant	Tons per Year
Nitrogen Oxides (NO _x)	1.9
Carbon Monoxide (CO)	1.6
Volatile Organic Compounds (VOC)	0.1
Particulate Matter (as PM ₁₀)	4.1
Sulfur Oxides (SO _x)	<0.1
Hazardous Air Pollutants (HAPs combined)	<0.1

All terms and conditions of this permit are locally enforceable conditions only.

SPECIFIC CONDITIONS

I. Applicability

This is the second five-year, Class III, Stationary source operating permit. This facility is a true minor source for all regulated air pollutants.

This permit contains requirements that apply to the metal recycling operations at the facility. A complete list of applicable requirements and applicable equipment is identified in Attachment 1 and Attachment 2 of this permit respectively.

II. Emission Limitations and Standards

A. Smelting Process (Incinerator) Applicable Standards

The conditions of this section are applicable to the incinerators identified in Table 1 of Attachment 2.

1. Particulate Matter Standard

The Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere in any one hour from any incinerator, in excess of 0.08 grains per cubic foot, based on dry flue gas at standard conditions, corrected to 12 percent carbon dioxide. Incinerators shall be exempt from this emission requirement for not more than 30 seconds in any 60 minute period.

[PCC 17.16.170.C.1 & PCC 17.16.170.E.1]

2. Opacity Standard

The Permittee shall not cause, allow, or permit to be emitted into the atmosphere, from any type of incinerator, smoke, fumes, gases, particulate matter or other gas-borne material which exceeds 20 percent opacity. Incinerators shall be exempt from this opacity requirement for not more than 30 seconds in any 60 minute period.

[PCC 17.16.170.B & PCC 17.16.170.E.1]

3. Hour Limitation

The Permittee shall limit the hours of operation of the incinerators to daylight hours between the times of official sunrise and sunset.

[PCC 17.16.170.A]

B. Operations & Maintenance Plan

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate the smelting and refining processes including the associated pollution control equipment, identified in Table 2 of Attachment 2, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Control Officer in the approved operating and maintenance plan. It may also include, but is not limited to, monitoring results, opacity observations and inspection of the source.

[PCC 17.12.185.A.2]

[Material Permit Condition]

C. General Applicable Standards

The conditions of this section are applicable facility-wide.

1. Visibility Limiting Standard

- a. The Permittee shall not allow the diffusion of visible emissions, including fugitive dust, beyond the property boundary line within which the emissions become airborne without taking reasonably necessary and feasible precautions to control generation of airborne particulate matter. Sources may be required to cease temporarily the activity or operation that is causing or contributing to the emissions until reasonably necessary and feasible precautions are taken; [PCC 17.16.050.D]
 - i. This provision shall not apply when wind speeds exceed twenty-five (25) miles per hour (using the Beaufort Scale of Wind-Speed Equivalents, or as recorded by the National Weather Service). This exception does not apply if control measures have not been taken or were not commensurate with the size or scope of the emission source. [PCC 17.16.050.D.2]
 - ii. This provision shall not apply to the generation of airborne particulate matter from undisturbed land. [PCC 17.16.050.D.3]
 - iii. This provision shall not apply to visible emissions consisting of uncombined water. [PCC 17.16.040.B]
- b. The Permittee shall not cause, suffer, allow, or permit a building or its appurtenances, or a building or subdivision site, or a driveway, or a parking area, or a vacant lot or a sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared or leveled, or the earth to be moved or excavated without taking reasonable precautions to limit excessive amounts of particulate matter from becoming airborne. Dust and other types of air pollutant shall be kept to a minimum by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means. [PCC 17.16.080]
- c. No person shall cause, suffer, allow or permit crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust without taking reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods to prevent excessive amounts of particulate matter from becoming airborne. [PCC 17.16.100.A]

2. Opacity Standard

The Permittee shall not cause or permit the effluent from any fugitive emissions source to have an average optical density greater than 20%, as measured in accordance with EPA Reference Method 9 in Appendix A of 40 CFR 60. [PCC 17.16.050.B]

3. Fuel Limitation

The Permittee shall only combust the specified fuel allowed for each incinerator in Table 1 of Attachment 2. [PCC 17.12.185.A.2]

[Material Permit Condition]

III. Monitoring Requirements

[PCC 17.12.185.A.3]

A. Smelting Process (Incinerator)

The conditions of this section are applicable to the incinerators identified in Table 1 of Attachment 2.

1. Particulate Matter

To demonstrate compliance with the emission limitation in II.A.1, of the Specific Conditions, the Permittee shall operate and maintain the smelting process at all times - including periods of startup, shutdown, and malfunction - in a manner consistent with good air pollution control practices, consistent with manufacturers' guidelines (where available) and consistent with the approved operation and maintenance plan. [PCC 17.12.185.A.2]

2. Opacity

a. Compliance with the opacity limiting standard reference in II.A.2 of the Specific Conditions shall be determined by performing monthly checks of the facility operations to ensure that they are maintained and operated according to manufacturers' specifications (where available) and as detailed in the approved operation and maintenance plan.

b. The frequency of monitoring on going compliance with the opacity limiting standard will be reduced to biweekly (once every two weeks) if the following conditions are encountered:

i. The Permittee fails to comply with all applicable monitoring and recordkeeping requirements of this permit and as identified in the approved operation and maintenance plan.

ii. Failure to comply with specific condition III.A.2.b.i of this permit will result in the increased opacity monitoring frequency (i.e. once every two weeks) for six (6) months. Following this six month period, the Permittee may reduce the opacity monitoring frequency to monthly only after the Permittee notifies the Control Officer in writing of his or her intention to make such a change and the Control Officer does not object to that change.

iii. The increased monitoring frequency will only be required on the facility operation that has failed to comply with the applicable monitoring and recordkeeping requirements of this permit and as identified in the approved operation and maintenance plan. All other facility operations that have demonstrated compliance with the applicable provisions of this permit shall remain at the monthly opacity monitoring frequency.

3. Hour Limitation

To assure compliance with the operational hour limitation in II.A.3 of the Specific Conditions, the Permittee shall monitor the time of operation and hours of operation of the incinerator units per day. [PCC 17.16.170.F]

B. Operational Conditions

The Permittee shall perform checks of the air pollution control equipment identified in Table 2 of Attachment 2 to ensure that they are maintained and operated according to the approved operation and maintenance plan and manufacturers' specifications (where available).

C. General Applicable Conditions

1. Visibility Limiting Standard

Compliance with the visibility emission standard reference in II.C.1 of the Specific Conditions shall be determined by performing checks of the facility operations to ensure that they are maintained and operated according to manufacturers' specifications (where available) and as detailed in the approved operation and maintenance plan.

2. Opacity

Compliance with the opacity limiting standard reference in II.C.2 of the Specific Conditions shall be determined by performing checks of the facility operations to ensure that they are maintained and operated according to manufacturers' specifications (where available) and as detailed in the approved operation and maintenance plan.

3. Facility Changes

Before installing additional units or switching fuels, the Permittee shall apply for the appropriate revision pursuant to PCC 17.12.240, PCC 17.12.255 or PCC 17.12.260.

IV. Recordkeeping Requirements

[PCC 17.12.185.A.4]

- A. The Permittee shall record all observations made in accordance with the opacity standard requirements described in II.A.2 and II.C.2 of the Specific Conditions. If no visible emissions are observed, the record shall state the fact. The inspection record shall include the date, the process being checked, the name of the person making the check, and the results of the check (including any indications of any operation or maintenance required). If the visible emissions were greater than the standard in II.A.2 and/or II.C.2 of the Specific Conditions, the Permittee shall include in the log any corrective actions taken and report to the Control Officer in accordance with the requirements in I.B of the Additional Permit Requirements.
- B. The Permittee shall record the results of all checks of facility operations and monitoring of pollution control equipment identified in Table 2 of Attachment 2 in accordance with the approved operation and maintenance plan.
- C. The Permittee shall retain all records relating to this permit, and a copy of the permit at the permit site. The Permittee shall comply with the permit posting requirements of PCC 17.12.080. All records shall be maintained in accordance with the requirements of PCC 17.12.185.A.4.b.
[PCC 17.12.080 & PCC 17.12.185.A.4.b]
- D. All records shall be retained for at least five years. [PCC 17.24.020.A]

V. Reporting Requirements

[PCC 17.12.185.A.5]

A. Permit Deviations Reporting

The Permittee shall promptly report excess emissions and deviations from permit requirements in accordance with the requirements outlined in PCC 17.12.185.A.5.b.

B. Operation and Maintenance Plan

1. Upon the Control Officers request, the Permittee shall make available to the Control Officer all maintenance and inspection records of the facility operations as detailed in the approved Operation and Maintenance Plan.
2. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Control Officer, which may include, but is not limited to, monitoring results; review of the Operation and Maintenance Plan, procedures, and records; and inspection of the source.
3. Based on the results of a determination made under V.B.2 of the Specific Conditions, the Control Officer may require the Permittee to make changes to the Operation and Maintenance Plan. Revisions may be required if the Control Officer finds that the plan:
 - a. Does not address a malfunction that has occurred;
 - b. Fails to provide for the proper operation of the affected source, the air pollution control techniques, or the control system and process monitoring equipment during a malfunction in a manner consistent with good air pollution control practices; or
 - c. Does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.

VI. Testing Requirements

[PCC 17.12.185.A.3.a]

For purposes of demonstrating compliance, these test methods shall be used, provided that for the purpose of establishing whether or not the facility has violated or is in violation of any provision of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable federal requirements if the appropriate performance or compliance procedures or methods had been performed. [PCC 17.20.010]

- A. When required, EPA Reference Method 9 in Appendix A of 40 CFR 60 shall be used to monitor compliance with the opacity standard in II.A.2 and II.C.2 of the Specific Conditions. [PCC 17.12.040.B]
- B. When required, the sulfur content of the fuel shall be determined using ASTM Method D-1072-90 (Test Method for Total Sulfur in Fuel Gases), or equivalent ASTM test method applicable for determining the sulfur content of gaseous fuels.
- C. The Permittee may submit an alternate and equivalent test method(s) that is listed in 40 CFR Subpart 60, Appendix A, to the Director in a test plan, for approval by the Director.

ADDITIONAL PERMIT CONDITIONS

I. COMPLIANCE WITH PERMIT CONDITIONS

[PCC 17.12.185.A.7.a & b]

- A. The Permittee shall comply with all conditions of this permit including all applicable requirements of Arizona air quality statutes and the air quality rules. Any permit noncompliance constitutes a violation of the Arizona Revised Statutes and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.
- B. The Permittee shall report to the Control Officer any emissions in excess of the limits established by this permit. The report shall be in 2 parts as specified below: [PCC 17.12.185.A.5 & PCC 17.12.040]
- 1 Notification by telephone or facsimile within 24 hours of the time the Permittee first learned of the occurrence of excess emission that includes all available information pursuant to PCC 17.12.040.B. To report excess emissions call **520-724-7400** or fax to **520-838-7432**.
 2. Detailed written notification by submission of an excess emissions report within 72 hours of the notification in I.B.1 above. **Send to PDEQ 33 N. Stone Ave, Ste 730, Tucson, Arizona 85701.**
- C. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- D. The permit does not convey any property rights of any sort, or any exclusive privilege to the permit holder.
- E. The Permittee shall pay fees to the Control Officer pursuant to PCC 17.12.520. [PCC 17.12.185.A.8 & PCC 17.12.520]

II. PERMIT REVISION, REOPENING, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE

[PCC 17.12.185.A.7.c]

The permit may be revised, reopened, revoked and reissued, or terminated for cause pursuant to PCC 17.12.270. The filing of a request by the Permittee for a permit revision, revocation and reissuance, or termination; or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

III. DUTY TO PROVIDE INFORMATION

[PCC 17.12.165.G & PCC 17.12.185.A.7.e]

- A. The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required to be kept by the permit. For information claimed to be confidential, the Permittee shall furnish a copy of such records to the Control Officer along with a claim of confidentiality.
- B. If the Permittee has failed to submit any relevant facts or if the Permittee has submitted incorrect information in the permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

IV. SEVERABILITY CLAUSE

[PCC 17.12.185.A.6]

The provisions of this permit are severable. If any provision of this permit is held invalid, the remainder of this permit shall not be affected thereby.

ATTACHMENT 1

APPLICABLE REGULATIONS

REQUIREMENTS SPECIFICALLY IDENTIFIED AS APPLICABLE

Pima County Code (PCC) Title 17, Chapters:

- 17.16.010 Local Rules and Standards; Applicability of more than one Standard
- 17.16.040 Standards and Applicability (Includes NESHAP)
- 17.16.050 Visibility Limiting Standard
- 17.16.080 Vacant lots and open spaces
- 17.16.100 Particulate materials
- 17.16.165 Standards of Performance for fossil fuel fired industrial and commercial equipment.
- 17.16.170 Incinerators

Proposed Permit

ATTACHMENT 2

EQUIPMENT LIST AND EMISSION POINTS

Table 1: Incinerator Equipment

Type of Equipment	Manufacture	Model	Capacity	Process Rate	Equipment ID/ Serial Number	Primary Fuel
Main Furnace	“In House”	None	3.2 MMBtu/hr	14,000 lbs/day	MF-1	Natural Gas
Rotary Furnace	“Unknown”	None	1.0 MMBtu/hr	1,000 lbs/day	RF-1	Natural Gas
Tilt Furnace	North America	400T	0.2 MMBtu/hr	480 lbs/day	CJ-1437	Natural Gas
Pot Furnace	“In House”	None	0.05 MMBtu/hr	50 lbs/day	PF-1	Natural Gas

Table 2: Air Pollution Control Equipment

Type of Equipment	Name	Manufacture	Model	Equipment ID/ Serial Number	Capacity (ACFM)
Baghouse	American Air Filter (AFF)	American Air Filter (AFF)	Fabri Pulse	12-264-4234	22,000
Baghouse	Assay Lab/Sampling	Torrit	IG 301787-004	DFT2-16	6,000
Baghouse	Secondary Hood	DCE	DLM 2/4/15	86-2011/1	8,000
Baghouse	Ballmill	PTS Industries	FJB	BMBH-1	12,000
Baghouse	Refinery – Tilt	DCE	DLM 1/4/15	89-1495	4,000
Baghouse	Refinery – Pot	DCE	DU 454 F11	87-1179	3,500
Baghouse	Sampling	DCE	DU 204 F6	90-1731	2,500
Baghouse	Ball Mill	Fabricmax	F 60 D	1779	

Table 2 continues on page 12

Table 2 continued: Air Pollution Control Equipment

Type of Equipment	Name	Model	Equipment ID / Serial Number	Capacity
Rotary Scrubber System	Tank 1	N/A	RS -1	1000 gal
Square Smelter Scrubber System	Tank 2	N/A	SB -2	1000 gal
	Tank 3	N/A	SB -1	1000 gal
	Packed Scrubber	Unknown	PSC-1	15000 CFM

Table 3: Milling Equipment

Type of Equipment	Manufacture	Equipment ID/ Serial Number	Capacity (lbs/yr)
Ball Mill	Paul O. Abbe	PA 2010	1,000