



Street Address:

State of Ohio Environmental Protection Agency

Mailing Address:

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Lazarus Gov.
Center

**RE: FINAL PERMIT TO INSTALL
JEFFERSON COUNTY
Application No: 17-1631**

CERTIFIED MAIL

DATE: August 25, 1999

Titanium Metals Corporation
Thomas Bottorf
100 Titanium Way
Toronto, OH 43964

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

cc: USEPA
DAPC, SEDO



**Permit To Install
Terms and
Conditions**

**Issue Date: August 25, 1999
Effective Date: August 25, 1999**

PERMIT TO INSTALL 17-1631

Application Number: 17-1631
APS Premise Number: 1741180064
Permit Fee: **\$1,000**
Name of Facility: Titanium Metals Corporation
Person to Contact: Thomas Bottorf
Address: 100 Titanium Way
Toronto, OH 43964

Location of proposed air contaminant source(s) [emissions unit(s)]:
**100 Titanium Way
Toronto, OHIO**

Description of proposed emissions unit(s):
TITANIUM BILLET PICKLING LINE.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install General Terms and Conditions

1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District

Office or local air agency. These quarterly written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.) See B.14 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, recordkeeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports submitted pursuant to OAC rule 3745-15-06 shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of deviations caused by malfunctions or upsets.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to

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section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the 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 federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the

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Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times

substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the appropriate Ohio EPA District Office or local air agency in the following manner and with the following content:
 - i. Compliance certifications shall be submitted on an annual basis unless the applicable requirement specifies more frequent submissions.
 - ii. Compliance certifications shall include the following:
 - (a) An identification of each term or condition of this permit that is the basis of the certification.
 - (b) The permittee's current compliance status.
 - (c) Whether compliance was continuous or intermittent.
 - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
 - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
 - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

10. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for

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noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

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11. Title V Permit To Operate Application

Pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit.

B. State Only Enforceable Permit To Install General Terms and Conditions**1. Compliance Requirements**

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining

records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may

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lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance

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that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities prove to be inadequate or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

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14. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

C. Permit To Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
NO _x	1.29
HF	0.018
HNO ₃	0.015

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Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

None.

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None.

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Titanium billet pickling line (pickling tank, rinse tank, wet scrubber)	Synthetic Minor to avoid PSD	Maximum 1.29 tons NO _x per rolling 12-month period. Maximum production 6500 tons per rolling 12-month period.

2. Additional Terms and Conditions

- 2.a The total production from emissions unit P076 shall not exceed 6500 tons per rolling 12-month period. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the production limits specified in the following table:

Month Cumulative Maximum Allowable Production (tons)

1	1625	
2	2068	
3	2511	
4	2955	
5	3398	
6	3841	
7	4284	
8	4727	
9	5171	
10		5614

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After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production limitation shall be based on upon a rolling 12-month summation of the monthly production.

- 2.b** Titanium Metals has abandoned plans to install source P068 (sheet pickling line) as permitted in PTI #17-1602. Source P068 shall not be installed by Titanium Metals Corporation without first applying for and obtaining a new PTI. The installation of source P068 under PTI #17-1602 is not permitted.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

- A. The permittee shall record the cumulative monthly production of source P076 for the first 12 calendar months of operation for purposes of determining compliance with the maximum cumulative production limit. Following the initial 12 months of operation, the permittee shall record the rolling 12-month production limitation to determine compliance with the 6500 tons per rolling 12-month production limitation.
- B. The permittee shall calculate and record the rolling 12-month NO_x emissions for emissions unit P076.

IV. Reporting Requirements

- A. The permittee shall submit deviation (excursion) reports which identify all exceedances of the of the rolling, 12-month limitation for production and for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the cumulative monthly maximum allowable production limitation.
- B. The permittee shall submit annual reports which specify the rolling 12-month NO_x emissions (A.3.B, above) from P076 for each month of the reporting period. These reports shall be submitted by January 31 of each year.
- C. These reports shall include any corrective action or preventive measures taken.

V. Testing Requirements

- A. Emission Limitation:

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Maximum 1.29 tons NO_x per rolling 12-month period.

Compliance Method:

The permittee shall utilize the emission factor from B.V.B.i, below, and the actual rolling 12-month production rate. The value for "E" shall be divided by 2000 lb/ton. The allowable emission rate is based on facility production data of 6500 tons of billets per rolling 12-month period of average billet size 10 inch diameter and 144 inch length. Compliance shall also be determined through Monitoring and Recordkeeping Requirements A.III.B, above.

B. Production Limitation:

Maximum production of 6500 tons per rolling 12-month period.

Compliance Method:

Compliance shall be determined through Monitoring and Record Keeping Requirements A.III.A, above.

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Titanium billet pickling line (pickling tank, rinse tank, wet scrubber)	OAC rule 3745-31-05	12.69 pounds NO _x per hour; 1.29 tons NO _x per year; 0.004 pound HF per hour; 0.018 ton HF per year; 0.003 pound HNO ₃ per hour; 0.015 ton HNO per year.

2. Additional Terms and Conditions

- 2.a The following is the Best Available Technology (BAT) determination for emissions unit P076:
 - i. The nitrogen oxide (NO_x), hydrofluoric acid (HF), and nitric acid (HNO₃) emissions from this unit shall not exceed 12.69, 0.004 and 0.003 pounds per hour, respectively. These emissions are based on maximum usage; thus, hourly record keeping is not required.
 - ii. The total tons of emissions per year of NO_x, HF, and HNO₃ from emission unit P076 shall not exceed the following: NO_x = 1.29 tons/yr; HF = 0.018 ton/yr; HNO₃ = 0.015 ton/yr.

II. Operational Restrictions

- A. The pressure drop across the scrubber for source P076 shall be continuously maintained at a value of not less than 3.25 inches of water.
- B. The scrubber water flow rate for P076 shall be maintained at not less than 300 gallons per minute at all times.

- C. The pH of the scrubber water for P076 shall be maintained at no less than 7 and a maximum of 11 at all times.
- D. The scrubber system shall be operated continuously (8760 hours per year) unless the pickling/rinse tanks are empty or covered.

III. Monitoring and/or Record keeping Requirements

- A. The permittee shall properly install, operate, and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while P076 is in operation. Appropriate procedures and analytical methods shall be followed to sample and analyze the scrubber water for pH. The monitoring devices and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
- B. The permittee shall collect and record the following information each day:
 - i. the pressure drop across the scrubber, in inches of water;
 - ii. the scrubber water flow rate, in gallons per minute;
 - iii. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit;
 - iv. the scrubber water pH; and,
 - v. the emissions unit operating rate, tons per day.

IV. Reporting Requirements

- A. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at levels specified in Operation Restrictions above:
 - i. the static pressure drop across the scrubber;
 - ii. the scrubber water flow rate; and,
 - iii. the scrubber water pH.
- B. The permittee shall immediately report to Ohio EPA all periods of time during which the scrubber system is not operated for source P076.
- C. These reports shall include any corrective action or preventive measures taken.

V. Testing Requirements

Compliance with the emissions limitations in the Air Emission Summary for emissions unit P076 shall be

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determined in accordance with the following methods:

A. Emissions Limitations:

12.69 pounds NO_x per hour;
 1.29 tons NO_x per year;
 0.004 pound HF per hour;
 0.018 ton HF per year;
 0.003 pound HNO₃ per hour;
 0.015 ton HNO₃ per year.

Compliance Method:

- i. Multiply the emission factor of 1.278 lb NO_x / lb titanium removed by the actual titanium removal rate. The permittee shall determine the titanium removal rate (lb titanium per hour) by multiplying the surface area of the billets by the thickness removed (0.0005 in) and then multiplying by the number of billets pickled and the density of titanium (0.163 lb/in³), as represented by the following formula:

$$E = (1.278 \text{ lb NO}_x/\text{lb Ti}) * 2\pi r (R + L) * (0.0005 \text{ in}) * (n) * (0.163 \text{ lb/in}^3) * (1 - 0.25)$$

where

E = hourly NO_x emissions (lb NO_x / hr)
 r = billet radius (in)
 L = billet length (in)
 n = number of billets per hour
 1-0.25 = controlled emission factor (25% control)

If required, stack testing per USEPA, 40 CFR 60 Appendix A, Method 7 shall be performed.

- ii. The permittee shall utilize the emission factor from B.V.B.i, above, and the actual annual production rate. The value for "E" shall be divided by 2000 lb/ton. The allowable emission rate is based on facility production data of 6500 tons of billets per year of average billet size 10 inch diameter and 144 inch length.
- iii. Titanium Metals shall assume 0.43 lb HF/hr uncontrolled emissions. Assume controlled emissions (99% effective) to be 0.004 lb HF/hr. These values are obtained using a spreadsheet developed by ESCO engineering and are based on pickling tank surface dimensions (25 ft X 4.5 ft), %HF in bath, bath temperature, exhaust rate (177.8 cfm/ft²), and total air (20000 acfm). Additionally, ambient temperature is assumed to be between 60 and 80 degrees Fahrenheit, atmospheric pressure, lateral exhaust, and a specific concentration of HF in the bath. Stack testing shall be conducted in order to verify the accuracy of estimations within 180 days of construction.

- iv. Compliance is based on 8760 hours of operation per year. Compliance is determined through maintenance and operation of the scrubber in accordance with manufacturers recommendations combined with a maximum hourly controlled emissions rate of 0.004 lb HF/hr.
- v. Titanium Metals shall assume 0.17 lb HNO₃/hr uncontrolled emissions. Assume controlled emissions (98% effective) to be 0.003 pounds HNO₃ per hour. These values are obtained using a spreadsheet developed by ESCO engineering and are based on pickling tank surface dimensions (25 ft X 4.5 ft), %HNO₃ in bath, bath temperature, exhaust rate (177.8 cfm/ft²), and total air (20000 acfm). Additionally, ambient temperature is assumed to be between 60 and 80 degrees Fahrenheit, atmospheric pressure, lateral exhaust, and a specific HNO₃ concentration in the bath.
- vi. Compliance is based on 8760 hours of operation per year. Compliance is determined through maintenance and operation of the scrubber in accordance with manufacturers recommendations combined with a maximum hourly controlled emissions rate of 0.003 lb HNO₃/hr.

VI. Miscellaneous Requirements

- A. This permit allows the use and subsequent emissions of hydrofluoric acid (HF). Estimated emissions of HF fall below levels requiring toxics modeling as specified in Ohio EPA's Air Toxics Policy. Any of the following changes may be deemed a modification to the emissions unit. Prior notification to and approval from Ohio EPA, Southeast District Office is required, including the possible issuance of modifications to PTI #17-1631 and the operating permit:
 - i. Any changes in the composition of the HF containing materials, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV) than HF as indicated by the most recent version of *American Conference of Governmental Industrial Hygenists Threshold Limit Values for Chemical Substances and Physical Agents*.
 - ii. Any change to the emissions unit or its exhaust parameters (e.g. increased emission rate, reduction of exhaust flow rate) that would result in increased emissions of HF. Emissions of HF greater than 1 ton per year require toxics review.
 - iii. Any change to the emission unit or its mode of operation that would either require an increase in the emission limitations established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01.
- B. All waste water generated by the facilities contained in the approved plans must receive treatment at the existing waste water treatment plant.

Titanium Metals Corporation

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C. Discharges from the approved facilities shall not cause hydraulic overload, upset the existing waste water treatment plant, or cause exceedances of the effluent limitations contained in the facility NPDES permit.