



Florida Department of Environmental Protection

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Southwest District Office
13051 North Telecom Parkway, Suite 101
Temple Terrace, Florida 33637-0926

Ryan E. Matthews
Interim Secretary

PERMITTEE

Carpenter Technology Corporation
d.b.a. Dynamet Incorporated
14000 49th Street
Clearwater, FL 33672

Air Permit No. 1030216-011-AO
Air Operation Permit

Dynamet Incorporated
Pinellas County, Florida

Authorized Representative:
Mr. Elya Soroka, Plant Manager

PROJECT

This is the final air operation permit, which authorizes the operation of the Dynamet Incorporated facility, which is a titanium metal processing plant (Standard Industrial Classification No. 3356). This project revises Air Operation Permit No. 1030216-009-AO to incorporate the terms and conditions of Air Construction Permit No. 1030216-010-AC. The construction permit authorized the after-the-fact replacement of the shot blasting operation dust collector control device in E.U. No. 002. The facility is located in Pinellas County at 14000 49th Street in Clearwater, Florida. The UTM coordinates are Zone 17, 332.57 km East, and 3087.32 km North.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements and Facility-wide Specific Conditions); Section 3 (Emissions Unit Specific Conditions); and Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

Permitting Authority: Applications for air operation permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4 and 62-210 of the Florida Administrative Code (F.A.C.). The Permitting Authority responsible for making a permit determination for this project is the District Office. The Permitting Authority's physical address is: 13051 North Telecom Parkway, Temple Terrace, Florida 33637-0926. The Permitting Authority's mailing address is: 13051 North Telecom Parkway, Suite 101, Temple Terrace, Florida 33637-0926. The Permitting Authority's telephone number is 813-470-5700.

Petitions. A person whose substantial interests are affected by the proposed decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel, MS #35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, Agency_Clerk@dep.state.fl.us. Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this notice. Petitions filed by any other person must be filed within 14 days of receipt of this proposed action. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency

FINAL AIR OPERATION PERMIT

determination; (c) A statement of how and when each petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

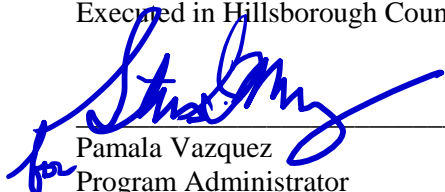
Mediation: Mediation is not available in this proceeding.

Effective Date: This permitting decision is final and effective on the date filed with the clerk of the Permitting Authority unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-110.106, F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely filing of a petition or a request for extension of time, this action will not be effective until further order of the Permitting Authority.

Judicial Review: Any party to this permitting decision (order) has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

1030216-011-AO Effective Date: March 31, 2017
Renewal Application Due Date: June 27, 2018
Expiration Date: August 26, 2018

Executed in Hillsborough County, Florida.



Pamala Vazquez
Program Administrator
Permitting & Waste Cleanup Program
Southwest District

FINAL AIR OPERATION PERMIT

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Air Permit package was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on the date indicated below to the following persons.

Elya Soroka, Dynamet, Inc., esoroka@cartech.com

Garan Baisden, Carpenter technology Corporation, GBaisden@cartech.com

Cory A. Houchin, P.E., Environmental Sciences Group, houchinc@environmentalsciencesgroup.com

Sherrill Culliver, Pinellas County Air Quality Division, sculliver@co.pinellas.fl.us

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on
this date, pursuant to Section 120.52(7), Florida Statutes,
with the designated agency clerk, receipt of which is
hereby acknowledged.



(Clerk)

March 31, 2017

(Date)

SECTION 1. GENERAL INFORMATION

FACILITY DESCRIPTION

This facility is a titanium metal processing plant with mineral acid cleaning (pickling) and surface oxidation system operation, and shot blasting operation. Titanium is received at this facility as hot rolled coils. In the straight bar process, the titanium is annealed, warm extruded, straightened to customer specified lengths and then processed to remove defects and to meet customer specifications. Heating takes place in eight electric furnaces. Defects are removed by grinding operations. Non-hazardous grinding sludge is collected and disposed at contracted landfill. In the Smart Coil process, large coils of titanium (weighing from ~ 180 to ~ 350 pounds) go through the annealing and extrusion process before defects are removed by turning machines. The turnings are collected for recycling. The coils then go through an initial pickling process. This currently consists of dipping the coils into a series of open, ~1,200 gallon polypropylene tanks. The first is a solution of 5% hydrofluoric acid and 10% sulfuric acid (pickling tank), the second is a rinse tank. The coil is then inspected and shot blasted. The shot blasting process uses fine steel shot as blast material. The blast area is enclosed and exhausts through a Hydrotron HWF 4-40-15-C-SST wet-type dust collector. After shot blasting the coil is then taken back and dipped first into the pickling tank and then into the rinse tank and then into one of two Tikote surface oxidation tanks. The coil is then rinsed by a spray hose. Emissions from each of these tanks are captured by a MAPCO Type II gray MW-300-2 fume scrubber that picks up from the back side of the tanks through louvers and into ducts that lead to the scrubber. The scrubber exhausts out the west side of the building. The titanium is then uncoiled and passes through an area where lubricant is applied.

The existing facility consists of the following emissions units (EU).

EU No.	Emission Unit Description
001	Acid Metal Cleaning (Pickling) and Surface Oxidation Operation
002	Shot Blasting Operation with Baghouse

FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility does not operate units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is not a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.
- This facility is a synthetic non-Title V source for the pollutant sulfuric acid mist (SAM) and hydrofluoric acid.

PERMIT HISTORY/AFFECTED PERMITS

This permit replaces Operation Permit No. 1030216-009-AO and incorporates the terms and conditions of Construction Permit 1030216-010-AC.

SECTION 2. ADMINISTRATIVE REQUIREMENTS AND FACILITY-WIDE SPECIFIC CONDITIONS

ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Southwest District of the Department of Environmental Protection (Department). The mailing address, phone number and e-mail address is:

Florida Department of Environmental Protection
Southwest District Office
Air and Solid Waste Permitting Program
13051 North Telecom Parkway, Suite 101
Temple Terrace, Florida 33637-0926
Telephone: 813-470-5700
E-mail: SWD_Air_Permitting@dep.state.fl.us

All documents related to applications for permits to operate an emissions unit shall be submitted to the above e-mail address and/or address.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Pinellas County Air Quality Division. The mailing address, phone number and e-mail address of the Local Air Program is:

Pinellas County Air Quality Division
509 East Avenue South, Suite 138
Clearwater, Florida 33756
Telephone: 727-464-4422
E-mail: Airquality@pinellascounty.org

3. Appendices: The following Appendices are attached as a part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); Appendix C (Common Conditions); and Appendix D (Common Testing Requirements).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time.
[Rule 62-4.080, F.A.C.]
6. Modifications: No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification.
[Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Renewal. Prior to 60 days before the expiration date of this permit, the permittee shall apply for a renewal of the permit. A renewal application shall be timely and sufficient. If the application is submitted prior to 60 days before expiration of the permit, it will be considered timely and sufficient. If the renewal application is submitted at a later date, it will not be considered timely and sufficient unless it is submitted and made complete prior to the expiration of the operation permit. When the application for renewal is timely and

SECTION 2. ADMINISTRATIVE REQUIREMENTS AND FACILITY-WIDE SPECIFIC CONDITIONS

sufficient, the existing permit shall remain in effect until the renewal application has been finally acted upon by the Department. To properly apply for an operation permit, the applicant shall submit the following:

- a. the appropriate permit application form (*see current version of Rule 62-210.900, F.A.C. (Forms and Instructions), and/or FDEP Division of Air Resource Management website at: <http://www.dep.state.fl.us/air/>*);
- b. the appropriate operation permit application fee from Rule 62-4.050(4)(a), F.A.C.;
- c. copies of the most recent month of records/logs specified in Specific Condition No. A.3.; and
- d. any proposed revisions to the most recently approved O & M Plan (Agency name) (*see Specific Condition No. B.2*).

[Rules 62-4.090, 62-210.300(2), and 62-210.900, F.A.C.]

8. **Annual Operating Report (AOR)**: The information required by the Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous calendar year, to the Compliance Authority (PCAQD). All synthetic non-Title V sources shall submit a completed DEP Form 62-210.900(5) unless the annual operating report is submitted using the DEP's electronic annual operating report software. Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C.

[Rule 62-210.370(3), F.A.C.]

{Permitting Note: Resources to help you complete your AOR are available on the electronic AOR (EAOR) website at: <http://www.dep.state.fl.us/air/emission/eaor>. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at eaor@dep.state.fl.us.}

FACILITY-WIDE REQUIREMENTS

9. **Hours of Operation**: The hours of operation are not limited (8760 hours per year).
[Rules 62-4.070(3) and 62-210.200(Definition of Potential to Emit), F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. EU No. 001, Acid Metal Cleaning (Pickling) and Surface Oxidation Operation

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
001	<p><u>Acid Metal Cleaning (Pickling) and Surface Oxidation Operation</u> – This emissions unit consists of a titanium pickling and oxidation operation. The pickling process has six tanks; two cleaning tanks, two rinse tanks and two oxidizer tanks. Dip tanks are vented through a MAPCO Type II gray PVC MX-300-2 fume scrubber.</p> <p>The acid cleaning (pickling) operation consists of one process line of six tanks as follows:</p> <ul style="list-style-type: none">– <u>Acid Cleaning Tank</u> - Aqueous solution of 5% by weight hydrofluoric acid and 10% by weight sulfuric acid– <u>Rinse Tank</u> - Water rinse– <u>Acid Cleaning Tank</u> - Aqueous solution of 5% by weight hydrofluoric acid and 10% by weight sulfuric acid– <u>Rinse Tank</u> - Water rinse– <u>Oxidizer Tank (2)</u> - 5-10% by weight aqueous solution of Tikote A (sodium fluoride). These two tanks are in parallel, not in line. <p>and four enclosed strand titanium processing lines with four tanks each as follows:</p> <ul style="list-style-type: none">– <u>Acid Cleaning Tank</u> - Aqueous solution of 10% by weight hydrofluoric acid and 15% by weight sulfuric acid– <u>Rinse Tank</u> - Water rinse– <u>Oxidizer Tank</u> - 10-15% by weight aqueous solution of Tikote A (sodium fluoride).– <u>Rinse Tank</u> - Water rinse <p><i>Hydrofluoric Acid is added to the acid dip tanks as make-up for conversion of the acid to titanium fluoride.</i></p>

PERFORMANCE RESTRICTIONS

A.1. Permitted Capacity: The usage of mineral acids is restricted to the following, as determined by records of make-up and replenishment:

- Hydrofluoric Acid (HF), maximum annual rate of HF shall not exceed 18 tons/year of 49% by weight HF, (8.82 ton/year equivalent pure HF),
- Sulfuric Acid (H₂SO₄); maximum annual rate of H₂SO₄ shall not exceed 44.5 tons/year of 93% by weight H₂SO₄ (41.4 ton/year equivalent pure H₂SO₄).

[Rule 62-210.200 (PTE), F.A.C.; Construction Permit No. 1030216-008-AC]

Permitting note: This rate was changed from permit 1030216-006-AO to differentiate between industrial strength solution and pure acid.

A.2. Proper Operation of Control Equipment: No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device (MAPCO fume scrubber) operating properly.

[Rules 62-4.070(3) and 62-210.650, F.A.C. ("Circumvention"); Construction Permit No. 1030216-008-AC]

RECORDS AND REPORTS

A.3. Mineral Acid Cleaning Recordkeeping: In order to document compliance with the limitations of Specific Condition No.A.1., the permittee shall keep a log of products produced and chemicals consumed for all mineral acid cleaning operations for the facility. The log shall record the following at a minimum:

Daily

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. EU No. 001, Acid Metal Cleaning (Pickling) and Surface Oxidation Operation

- a. name, facility ID No., emission unit ID No., and description (i.e., Dynamet, Inc., 1030216, EU 001, Mineral Acid Cleaning);
- b. day, month, and year;
- c. daily quantity, in pounds, of hydrofluoric and sulfuric acid makeup used in the process;

Monthly

- a. month and year;
- b. monthly total, in pounds, of hydrofluoric and sulfuric acid makeup used in the process based on c. above; and
- c. most recent 12 consecutive month period cumulative material usage rate (in tons per 12 consecutive month period) based on e. above. The tons of acid usage should indicate if it is being reported on a pure equivalent basis or at industrial concentration.

[Rule 62-4.070(3), F.A.C.; Construction Permit No. 1030216-008-AC]

- A.4. Documentation: Supporting documentation (e.g., MSD sheets, “As Supplied” sheets, “As Applied” sheets, purchase orders, inventory records, production records, etc.) which include sufficient information to determine hydrofluoric and sulfuric acid percentage by weight, shall be kept at the facility.

[Rule 62-4.070(3), F.A.C.; Construction Permit No. 1030216-008-AC]

- A.5. Records Completion and Retention: Daily records required by Specific Condition No. A.2. shall be completed within three (3) business days. The monthly records shall be completed by the end of the following month. The records shall be maintained in a form suitable for inspection by the Department upon request and shall be kept at the facility for a minimum of the most recent three (3) year period.

[Rule 62-4.070(3), F.A.C.; Construction Permit No. 1030216-008-AC]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. EU No. 002 – Shot Blasting Operation

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
002	<p><u>Shot Blasting Operation</u> - Shot blasting is performed by an MMC Spin Blaster unit which uses fine steel shot as blast material. The unit has the capacity to process approximately 2,500 tons of titanium metal a year. The blast area is enclosed and exhausts through a Hydrotron HWF 4-40-15-C-SST wet-type dust collector.</p> <p><i>Note: The Hydrotron HWF 4-40-15-C-SST wet-type dust collector system is specifically designed for the safe collection of dust with a high potential of causing sparking and fire hazards like titanium.</i></p>

PERFORMANCE RESTRICTIONS

- B.1. Proper Operation of Control Equipment: No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device (i.e., Hydrotron HWF 4-40-15-C-SST wet type dust collector) operating properly.
[Rules 62-4.070(3) and 62-210.650, F.A.C. (“Circumvention”); Construction Permit No. 1030216-010-AC]

{Permitting Note: This emissions unit must also comply with the “General Visible Emissions Standard” specified in Rule 62-296.320(4)(b)1, F.A.C. which states that no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity.}

RECORDS AND REPORTS

- B.2. Operation and Maintenance (O & M) Plan for Hydrotron HWF 4-40-15-C-SST wet dust collector: The permittee shall maintain and implement an O & M Plan to include a schedule for the maintenance and inspection of the control device, collection systems, and auxiliary equipment. Records of inspections, maintenance, and performance data of control devices and auxiliary equipment shall be retained for a minimum of two (2) years and shall be made available to the Compliance Authority (PCAQD) upon request. At a minimum, the O&M plan shall include:
- The operating parameters of the pollution control device.
 - Time table for the routine maintenance of the pollution control device as specified by the manufacturer.
 - Time table of routine daily, weekly, bi-weekly, or monthly observations and inspections of the pollution control device.
 - A list of the type and quantity of the required spare parts for the pollution control device which are stored on the premises.
 - A maintenance log which will indicate, as a minimum:
 - When maintenance and observations were performed.
 - What maintenance and observations were performed.
 - Who performed said maintenance and observations.
 - Acceptable parameter ranges for each operational check.
- [62-4.070(3), F.A.C.; Pinellas County Code, Section 58-128]