

December 4, 2014

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RETURN RECEIPT REQUESTED

PERMITTEE

Republic Metals Corporation
12900 NW 38 Avenue
Opa Locka, FL 33054

Authorized Representative:
Mr. J.R. Rao, Senior Vice President

Air Permit No. 0250637-009-AC
Permit Expires: December 3, 2015

Republic Metals Corporation
Minor Source Air Construction Permit
Project: Modification to Permit No.
0250637-007-AC & Addition of Processes

This is the final air construction permit No. 0250637-009-AC, which modifies Air Construction Permit No. 0250637-007-AC, and authorizes the facility to install additional equipment/processes that include melt furnaces, gold and silver refining tanks, a silver smelting rotary furnace, ball mills, a mint room, dust collectors, and scrubbers.

The proposed work will be conducted at Republic Metals Corporation [Standard Industrial Classification (SIC) No. 3341; NAICS 331492]. The facility is located in Miami-Dade County at 12800, 12900 & 13000 NW 38 Avenue in Opa Locka, FL. The Lat./Long. coordinates are 25° 53' 25" N / 80° 15' 46" W.

This final permit is organized by the following sections.

Section 1. General Information

Section 2. Administrative Requirements

Section 3. Emissions Unit Specific Conditions

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.

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes 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.

AIR CONSTRUCTION PERMIT

The notice must be filed within 30 days after this order is filed with the clerk of the Miami-Dade County Department of Regulatory and Economic Resources (RER), Division of Environmental Resources Management, Air Quality Management.

Executed in Miami-Dade County, Florida

H. Patrick Wong, Chief
Air Quality Management

(Date)

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit) was sent by certified U.S. mail and/or 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 _____ to the persons listed below.

J.R. Rao, Republic Metals Corporation, 12900 NW 38 Avenue, Opa Locka, FL 33054
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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)

(Date)

SECTION 1. GENERAL INFORMATION

FACILITY AND PROJECT DESCRIPTION

Existing Facility

Republic Metals Corporation is a precious metals recovery facility. The existing facility consists of the following emissions units located at 12800, 12900 & 13000 NW 38 Avenue, Opa Locka, Florida.

Facility ID No. 0250637	
ID No.	Emission Unit Description
001	Simonds 2151 B Incinerator
002	Simonds 750 B Incinerator
004	Riello F1/08 Incinerator
005	Simonds Model AF-3 Incinerator
006	Miscellaneous Units

Proposed Project

The applicant requests an air construction permit to modify certain specific conditions and descriptions from previously issued Air Construction Permit No. 0250637-007-AC, and authorization to install additional equipment/processes. The additional equipment/processes will include melt furnaces, gold and silver refining tanks, a silver smelting rotary furnace, a ball mills process, a mint room, dust collectors, and scrubbers.

The mint room is used to make final bars of pure gold. Gold shot is melted down and formed into coins or bars, embossed, weighed and made into their final form. There are 2 electric melt furnaces equipped with hoods to remove heat and then vented to one (1) Donaldson Torit Downflo Oval cartridge style, Model No. DFO2-2 dust collector. A small hand held propane gas torch is used to keep the gold process hot and in liquid form. This mint room is located at 12800 NW 38 Avenue, and is exempt from permitting pursuant to Rule 62-210.300(3)(b)1, F.A.C.

This project will modify/add the following emissions units.

Facility ID No. 0250637	
ID No.	Emission Unit Description
006	Gold Electric Melt Furnaces with Dust Collector
007	Gold Refinery and Gold Wastewater Tanks controlled by One (1) Scrubber
008	Silver Wastewater Treatment controlled by One (1) Scrubber
009	Silver Refinery Tanks/Stone and Miscellaneous Jewelry Processing (Gold) controlled by Two (2) Scrubbers
010	Silver Electric Melt Furnaces with Two (2) Dust Collectors and One (1) Scrubber
011	Silver Smelting with Rotary Furnace and Dust Collector
012	Ball Mills with Dust Collector

FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility has no 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 213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.
- This facility is a natural minor, Non-Title V source of air pollution.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Miami-Dade County Department of Regulatory and Economic Resources (RER), Division of Environmental Resources Management, Air Quality Management. The RER's mailing address is: 701 NW 1 Court, Suite 400, Miami, Florida 33136. The RER's telephone number is 305/372-6925. All documents related to applications for permits to operate an emissions unit shall be submitted to the RER, Division of Environmental Resources Management, Air Quality Management.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the RER, Division of Environmental Resources Management, Air Quality Management. The mailing address of the RER, Division of Environmental Resources Management, Air Quality Management is: 701 NW 1 Court, Suite 400, Miami, Florida 33136. The RER, Division of Environmental Resources Management, Air Quality Management's telephone number is 305/372-6925.
3. Appendices: The following Appendices are attached as part of this permit:
 - a. Appendix A. Citation Formats and Glossary of Common Terms;
 - b. Appendix B. General Conditions;
 - c. Appendix C. Common Conditions.
 - d. Appendix D. Common testing requirements. (If applicable)
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, and Chapter 24, Code of Miami-Dade County. 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 RER or Florida Department of Environmental Protection (FDEP) may require the permittee to conform to new or additional conditions. The RER or FDEP shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the RER or FDEP may grant additional time.
[Rule 62-4.080, F.A.C.]
6. Modifications: The permittee shall notify the RER upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the RER. 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. Source Obligation:
 - (a) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

(b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12), F.A.C.]

8. Application for Air Operation Permit: This permit authorizes construction and/or installation of the permitted emission unit(s) and initial operation to determine compliance with the FDEP and the RER rules. **An operation permit is required for regular operation of the permitted emission units.** The owner or operator shall apply for and receive an operation permit prior to expiration of this permit. An application for an operation permit shall be submitted to the Miami-Dade County Department of Regulatory and Economic Resources, Division of Environmental Resources Management, Air Quality Management. To apply for an operation permit, the applicant shall submit the appropriate application fee and, in triplicate, the appropriate application form, a certification that construction was completed with a notation of any deviations from the conditions on the construction permit, compliance test results, and such additional information as the RER may by law require.

[Rule 62-4.030, 62-4.050, 62-4.220, and 62-210.300 F.A.C.]

9. Extension of This Permit: The expiration date of this construction permit may be extended upon request of the owner or operator and submission of the appropriate fee to the Miami-Dade County Department of Regulatory and Economic Resources, Division of Environmental Resources Management, Air Quality Management **at least 60 days prior** to the expiration date of this permit.

[Rule 62-4.030, 62-4.050, 62-4.070(3), and 62-4.220 F.A.C.]

10. Waste Disposal: The owner or operator shall treat, store, and dispose of all liquid, solid and hazardous wastes in accordance with all applicable Federal, State and Local regulations.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

This section of the permit addresses the following emissions unit(s).

ID No.	Emission Unit Description
001	One (1) Simonds Model No. 2151 B Natural Gas Fired Incinerator with a 180 lb/hr capacity (<i>Existing</i>) <i>This emissions unit is located at 12900 NW 38 Avenue</i>
002	One (1) Simonds Model No. 750 B Natural Gas Fired Incinerator with a 100 lb/hr capacity (<i>Existing</i>) <i>This emissions unit is located at 12900 NW 38 Avenue</i>
004	One (1) Riello Model No. F1/08 Natural Gas Fired Incinerator with a 4.41 lb/hr capacity (<i>Existing</i>) <i>This emissions unit is located at 12900 NW 38 Avenue</i>
005	One (1) Simonds Model No. AF-3 Natural Gas Fired Incinerator, continuous feed, with a 770 lb/hr (9.24 tons per day) capacity (<i>Existing</i>) <i>This emissions unit is located at 12900 NW 38 Avenue</i>
006	<u>Gold Electric Melt Furnaces with Dust Collector</u> (<i>Existing</i>) Fourteen (14) Electric Melt Furnaces Furnaces range in capacity from 8 kgs to 500 kgs. Total furnace capacity: 1617 kgs. One (1) Donaldson Torit, Model No. DFO4-64 Dust Collector @ 25,000 cfm [Dust Collector No. 1] <i>This emissions unit is located at 12900 NW 38 Avenue</i>
007	<u>Gold Refinery and Gold Wastewater Tanks controlled by One (1) Scrubber</u> (<i>Existing</i>) Three (3) dissolution tanks with a total capacity of 1,800 gallons Three (3) precipitation tanks with a total capacity of 2,400 gallons Two (2) wastewater treatment tanks with a total capacity of 3,000 gallons One (1) Filtering station One (1) Washing station One (1) silver chloride conversion tank with a capacity of 300 gallons One (1) gold chloride conversion tank with a capacity of 300 gallons <u>Six (6) holding tanks:</u> Two (2) 3,000 gallons each (Tank Nos. 5 & 6) Two (2) 1,500 gallons each (Tank Nos. 1 & 2) One (1) 500 gallon holding tank (scrubber blow-down tank) One (1) 400 gallon holding tank (scrubber tank) One (1) Tri-Mer Model No. C/F-14-60 Scrubber, Serial No. 37403 @ 17,000 cfm. [Scrubber No. 1] <i>This scrubber controls emissions from each piece of equipment listed under this emissions unit.</i> <i>This emissions unit is located at 12900 NW 38 Avenue</i>
008	<u>Silver Wastewater Treatment Controlled by One (1) Scrubber</u> Three (3) treatment tanks with a total capacity of 4,300 gallons (Tank Nos. 2, 3 & 4) Twelve (12) holding tanks with a total capacity of 27,200 gallons (Tank Nos. 1, 5-15) One (1) mixer tank with a capacity of 100 gallons Two (2) vacuum dryers (One dryer under vent hood) One (1) vent hood One (1) Tri-Mer Model No. C/F-11-036 Scrubber, Serial No. 7349 @ 12,000 cfm. [Scrubber No. 2] <i>This scrubber controls emissions from each piece of equipment listed under this emissions unit.</i> <i>This emissions unit is located at 13000 NW 38 Avenue</i>

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

<p>009</p>	<p><u>Silver Refinery Tanks/Stone and Miscellaneous Jewelry Processing (Gold) Controlled by two (2) Scrubbers</u></p> <p><u>Silver Refining</u> Eight (8) reaction tanks with a total capacity of 2,850 gallons Four (4) treatment tanks with a total capacity of 2,000 gallons Seven (7) precipitation tanks with a total capacity of 7,000 gallons One (1) wastewater treatment holding tank with a capacity of 3,000 gallons One (1) silver treatment tank with a capacity of 2,200 gallons</p> <p><u>Stone and Miscellaneous Jewelry Processing (Gold) (Located in building 12900)</u> Two (2) Reaction Stations (digestion tank, precipitation tank, filtration tank), each with a capacity of 25 liters Two (2) Reaction Stations (digestion tank, precipitation tank, filtration tank), each with a capacity of 50 liters One (1) Reaction Station (digestion tank, precipitation tank, filtration tank) with a capacity of 250 liters One (1) Wastewater holding tank with a capacity of 250 gallons <i>Each reaction station is connected to a pre-scrubber</i></p> <p>One (1) XERES Scrubber @ 4,000 cfm. [Scrubber No. 3]. <i>This scrubber controls emissions from the four (4) silver refining treatment tanks.</i> One (1) Harrington Environmental Engineering, Model No. ECV 66-10 LB Scrubber @ 10,000 cfm. [Scrubber No. 4]. <i>This scrubber controls emissions from each pre-scrubber, eight (8) silver refining reaction tanks, seven (7) silver refining precipitation tanks, silver refining wastewater holding tank, and treatment tank.</i> <i>This emissions unit is located at 13000 NW 38 Avenue</i></p>
<p>010</p>	<p><u>Silver Electric Melt Furnaces with Two (2) Dust Collectors and One (1) Scrubber</u></p> <p><u>Silver Melting South</u> Eleven (11) Electric Melt Furnaces (<i>Furnace Nos. F-1 to F-11</i>) Furnaces range in capacity from 8 lbs to 4,000 lbs. Total furnace capacity: 9,212 lbs One (1) Donaldson Torit, Model No. DFO4-64 Dust Collector @ 25,000 cfm [Dust Collector No. 2] One (1) XERES Scrubber @ 4,000 cfm. [Scrubber No. 3]. <i>This scrubber is used to control particulate matter (silver dust) from wet raw material for recovery from furnace Nos. F-1 to F-5.</i></p> <p><u>Silver Melting North</u> Eleven (11) Electric Melt Furnaces (<i>Furnace Nos. S-1 to S-5, and N-1 to N-6</i>) Furnaces range in capacity from 60 lbs to 4,000 lbs. Total furnace capacity: 13,320 lbs. One (1) Donaldson Torit, Model No. DF04-128 Dust Collector @ 50,000 cfm [Dust Collector No. 3] <i>This emissions unit is located at 13000 NW 38 Avenue</i></p>

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

011	<p><u>Silver Smelting with Rotary Furnace and Dust Collector</u></p> <p>One (1) Custom Made Natural Gas Fired Rotary furnace manufactured by L. Haberny Company, Inc rated at 5 MMbtu/hr. Operating range is 0.5 – 10 tons/hr in a batch process, with an operating furnace temperature of 1,200 °C. The rotary furnace is 7.5 ft outside diameter and 6.5 ft long and refractory-lined.</p> <p>One (1) Donaldson Torit, Model No. DLMC 4/8/15 side-by-side pulse-jet style baghouse dust collector @ 40,000 cfm [Dust Collector No. 4]. Equipped with 320 high temperature bags with 10,336 ft² of cloth area and a final air-to-cloth ratio of 3.87:1.</p> <p><i>This emissions unit is located at 12900 NW 38 Avenue</i></p>
012	<p><u>Ball Mills with Dust Collector</u></p> <p>Six (6) Ball Mills ranging in capacity from 32kg/day to 700kg/day.</p> <p>One (1) Donaldson Torit, Model No. 100FS12 pulse-jet baghouse dust collector @ 10,000 cfm [Dust Collector No. 5]</p> <p><i>This emissions unit is located at 12900 NW 38 Avenue</i></p>

1. **This permit supersedes previously issued Air Construction Permit No. 0250637-007-AC.**

EQUIPMENT

2. Equipment: The permittee is authorized to install the above-mentioned equipment to conduct precious metals recovery.
[Application No. 0250637-009-AC]

PERFORMANCE RESTRICTIONS AND EMISSIONS STANDARDS

3. Incinerator Charge Rate: The charge rate for each emissions unit (Emissions Unit Nos. 001, 002, 004 and 005) shall be less than 50 tons per day.
[Rules 62-4.070(3), and 62-296.401(1), F.A.C.]
4. Visible Emissions: Visible emissions shall not exceed 5% opacity from the incinerator stacks except that visible emissions not exceeding 15% percent opacity are allowed for one six-minute period in any one-hour period.
[Rule 62-296.401(1)(a) F.A.C.]
5. Facility-Wide Particulate Matter Emissions: Particulate matter emissions shall not exceed 100 tons in any consecutive 12 month period.
[Rule 62-4.070(3) F.A.C.]
6. Facility-Wide HAP Emissions: Total emissions of all hazardous air pollutants (HAPs) shall not equal or exceed 25 tons in any consecutive 12-month period.
[Rule 62-4.070(3) F.A.C.]
7. Facility-Wide Individual HAP Emissions: Emissions of any individual hazardous air pollutant (HAP) shall not equal or exceed 10 tons in any consecutive 12-month period.
[Rule 62-4.070(3) F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

8. Allowable Fuel: Fuel for the incinerators shall be limited to natural gas.
[Rule 62-4.070(3) F.A.C.]
9. Hours of Operation: The referenced emissions units(s) may operate 24 hours/day, 7 days/week for 52 weeks/year resulting in 8,760 hours in any consecutive 12-month period.
[Rule 62-210.200(PTE), F.A.C.]
10. Incinerator Feed: The permittee shall not incinerate hazardous waste, non-hazardous wastes which do not contain precious metals, or any material containing mercury.
[Rule 62-4.070(3) F.A.C.]

TESTING REQUIREMENTS, RECORDS AND REPORTS

11. HAP Content and Emissions: The permittee shall determine the total and individual HAP contents of all materials, including solvents, shall monitor the usage of such materials at the referenced emissions unit(s), and shall record and maintain the following information:
 - a. The individual and total HAP contents for each material containing or emitting HAPs.
 - b. The material utilization rate on a monthly basis, for all materials containing or emitting HAPs used at the referenced emissions unit(s).
 - c. The individual and total monthly HAP emissions rates for each material, calculated from the monthly material utilization rates and the individual and total HAP content, calculated for the preceding month no later than 10 days after the end of that month.
 - d. A rolling consecutive 12-month total emissions rate for individual and total HAPs, calculated from the monthly totals for the previous twelve calendar months.[Rule 62-4.070(3) F.A.C.]
12. Visible Emissions Test Required (Emissions Unit Nos. 001, 002, 004, and 005): The permittee shall have a formal compliance test conducted for visible emissions annually using EPA Method 9.
[Rule 62-296.401(1)(c) F.A.C.]
13. Recordkeeping of Raw Materials: The permittee shall maintain daily records of the quantity and type of materials input to the incinerator.
[Rule 62-4.070(3) F.A.C.]
14. Recordkeeping of Fuel Usage: The permittee shall maintain monthly records of natural gas fuel usage.
[Rule 62-4.070(3) F.A.C.]
15. Recordkeeping of Gold & Silver Production: The permittee shall maintain records to document the quantity of gold and silver processed under each gold and silver emissions unit (Emissions Unit Nos. 006, 007, 008, 009, 010 and 011) in any consecutive 12-month period.
[Rule 62-4.070(3) F.A.C.]
16. Supporting Documentation: The owner or operator shall maintain supporting documentation, such as Material Safety Data Sheets, purchase orders, usage and disposal records, etc., and shall include sufficient information to determine compliance. The log and documents shall be kept at the facility and made available for RER inspection for a minimum of three (3) years from the date of such records. Monthly logs shall be completed within 10 calendar days after completion of the preceding month.
[Rule 62-4.070(3) F.A.C.]