ENVIRONMENTAL PROTECTION COMMISSION OF
HILLSBOROUGH COUNTY, as Delegated by

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF PERMIT ISSUANCE

CERTIFIED MAIL

Kirk Kempnich
General Manager
Industrial Galvanizers America, Inc.
9520 East Broadway Avenue
Tampa, FL 33619

File No.: 0570069-017-AO
County: Hillsborough

Enclosed is Permit Number 0570069-017-AO for the operation of a hot dip zinc galvanizing facility, issued pursuant to Section 403.087, Florida Statutes. Please read this new permit thoroughly as there are changes from the previous permit.

The EPC will issue the final permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Section 120.569 and 120.57 F.S. before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Legal Department of the EPC at 3629 Queen Palm Drive, Tampa, Florida 33619, Phone 813-627-2600, Fax 813-627-2602. Petitions filed by the permit applicant or any of the parties listed below must be filed within 14 (fourteen) days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within 14 (fourteen) days of receipt of this permit. Under Section 120.60(3), however, any person who asked the EPC for notice of agency action may file a petition within 14 (fourteen) days of receipt of that notice, regardless of the date of publication.

A petitioner shall 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 of the F.A.C.

A petition that disputes the material facts on which the EPC'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 and the name, address, and telephone number of each petitioner's representative, if any, which shall be the address for service purposes during the course of the proceedings; and an explanation of how the petitioner's substantial interests will be affected by the EPC's determination;

(c) A statement of how and when the petitioner received notice of the EPC 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, including the specific facts the petitioner contends warrant reversal or modification of the EPC's proposed action;

(f) A statement of specific rules or statutes the petitioner contends requires reversal or modification of the EPC's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and

(g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the EPC to take with respect to the EPC's proposed action.

A petition that does not dispute the material facts upon which the EPC'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.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the EPC'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 EPC on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation under section 120.573, F.S. is not available in this proceeding.

This action is final and effective on the date filed with the Clerk of the EPC unless a petition is filed in accordance with above. Upon the timely filing of a petition, this order will not be effective until further order of the EPC.

Any person listed below may request to obtain additional information, a copy of the application (except for information entitled to confidential treatment pursuant to Section 403.111, F.S.), all relevant supporting materials, and all other materials available to the EPC that are relevant to the permit decision. Interested persons may contact Diana M. Lee, P.E., at the above address or call (813) 627-2600, for additional information.

Any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statues, by filing a notice of appeal under rule 9.110 of the Florida rules of Appellate Procedure with the EPC's Legal Office at 3629 Queen Palm Drive, Tampa, Florida 33619 and 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 thirty days after this order is filed with the clerk of the Department.

Executed in Tampa, Florida

ENVIRONMENTAL PROTECTION COMMISSION
OF HILLSBOROUGH COUNTY

_____

Richard D. Garrity, Ph.D.
Executive Director

RDG/LAW/law

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on _____ to the listed persons.

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

_____ _____

Clerk Date

PERMITTEE:
Industrial Galvanizers America, Inc.
9520 East Broadway Avenue
Tampa, FL 33619

PERMIT/CERTIFICATION
Permit No: 0570069-017-AO
County: Hillsborough
Expiration Date: May 7, 2019
Project: Hot Dip Zinc Galvanizing Facility

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 62-204, 62-210, 62-212, 62-296, 62-297, and 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the EPC and made a part of hereof and specifically described as follows:

Industrial Galvanizers America, Inc. (IGA) is a hot dip zinc galvanizing facility that coats steel products with a protective zinc coating to control corrosion of the steel and extend the functional life of the coated product. The metal parts are galvanized by using a cleaning/conditioning operation, which is described below.

Steel products are suspended from a crane and move through a series of immersion tanks in order to clean, condition, and galvanize the metal surfaces. The galvanizing operation consists of a caustic dip and spray rinse, acid pickling, rinsing, fluxing, and hot dip galvanizing. Steel entering the galvanizing operation is dipped in an aqueous, hot, caustic solution of NaOH to remove any oils and grease that may interfere with the galvanizing process. This tank is heated by a 0.5 MMBtu/hr natural gas fired heater. As the steel pieces are lifted out of the bath, they are spray-rinsed with water using spray nozzles. The rinsate falls into the tank to replenish the water evaporated due to the heating of the tank.

After rinsing, the cleaned steel is dipped into the first of four ambient temperature, dilute (up to 9%), HCl acid pickling baths to remove scale. The steel is dipped in each bath in succession. Each of the succeeding baths is more dilute than the previous bath. The hydrogen chloride concentration ranges of the four tanks are 7-9%, 5-7%, 1-5%, and 1%, respectively.

After pickling, the steel is rinsed by dipping it in a tank of water prior to fluxing. The fluxing tank contains an aqueous solution of zinc chloride and ammonium chloride. This tank is heated by a single, natural gas, Thermaflow unit, which is a state of the art, submerged combustion heater that has a maximum heat input of 0.75 MMBtu/hr. The HCl used in the acid pickling tanks is exempt

from permitting pursuant to Rule 62-210.300(3)(b)1., F.A.C.

After the flux tank, the steel is transferred to the zinc kettle, which is contained within an insulated firebox. The zinc kettle consists of a large steel tub that is approximately 42 feet (ft) long, 6 ft wide, 9 ft deep, and 2 inches thick with a design capacity of approximately 480 tons of molten zinc. This kettle rests within an insulated firebox that is equipped with six (6) natural gas fired burners. Each burner is rated at 1.9 MMBtu/hr, for a total of 11.4 MMBtu/hr. The kettle is heated by these external natural gas burners to melt the zinc and keep it in a molten state. The hot dip galvanizing melt contains 98% zinc per ASTM Specification A123-89a, and applies a zinc coating in the range 0.75 to 500 micrometers in thickness.

Emissions from the zinc galvanizing process consist of the byproducts of the natural gas combustion and particulate matter emissions generated from dipping the steel in the zinc. The galvanizing kettle is equipped with a retractable hood which collects and directs particulate emissions to a 36,000 acfm Aero Pulse PR-4808-12-H Baghouse. The hood closes prior to product dipping and is opened once the galvanizing process is complete. The kettle is subject to Rule 62-296.712, F.A.C.

The facility also operates a 1,650 pound/hour Metallics Zinc Recycler (MZR-750) that is used to process kettle skims generated by the zinc kettle, for in-house zinc recovery. The kettle skims are approximately 70-80% metallic zinc and the remainder is zinc oxide. The zinc recovery system heats the skim using a 0.31 MMBtu/hr natural gas fired heating chamber and recovers the metallic zinc for reuse. The Metallics Zinc Recycler is exempt from permitting pursuant to Rule 62-210.300(3)(b), F.A.C. .

A synopsis of the process is shown in the table below.

Zinc Galvanizing Kettle Process

Step	Tank	Solution	Approximate Temperature (^oF)
1	Caustic Cleaning Tank	~10% NaOH	176
2	Pickle Tank No. 1	~7-9% HCl	Ambient
3	Pickle Tank No. 2	~5-7% HCl	Ambient
4	Pickle Tank No. 3	~1-5% HCl	Ambient
5	Pickle Tank No. 4	~1% HCl	Ambient
6	Rinse Tank	Water	Ambient
7	Preflux Tank	Zinc/NH_4Cl Solution	150
8	480-ton Zinc Kettle	Molten Zinc	840
9	Quench Tank	~0.05% Chromic Acid	Ambient

Location: 9520 East Broadway Avenue, Tampa, Hillsborough County, Florida

UTM: 17-368.17 E 3094.76 N NEDS NO: 0069

Emission Unit ID: 004 – Large 480-ton Galvanizing Kettle with Baghouse

References Permit No. 0570069-015-AC

Replaces Permit No.: 0570069-016-AO

SPECIFIC CONDITIONS:

1. A part of this permit is the attached General Conditions. [Rule 62-4.160, F.A.C.]

2. All applicable rules of the Environmental Protection Commission of Hillsborough County including design discharge limitations specified in the application shall be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations prior to construction. [Rule 62-4.070(7), F.A.C.]

3. Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Chapters 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C., or any other requirements under federal, state, or local law. [Rule 62-210.300, F.A.C.]

4. In order to limit the potential to emit, the maximum PM emissions for the large molten zinc galvanizing kettle, based on a baghouse fan design flow of 36,000 acfm, shall not exceed the following per any twelve consecutive month period: [Rule 62-296.712(2), F.A.C. and Permit No. 0570069-015-AC]

Pollutant	TPY	Emission Limitation
Particulate Matter	40.6	0.03 grains/dscf

5. The facility HAP, as defined in Rule 62-213.200, F.A.C., emissions shall be less than 10 tons in any 12 consecutive month period for any individual HAP, and less than 25 tons in any 12 consecutive month period for any combination of HAPs. [Rule 62-210.300(2)(b), F.A.C.]

6. Visible emissions from the large molten zinc galvanic kettle shall be less than or equal to 5% opacity. [Rule 62-296.712(2), F.A.C.]

7. The facility-wide zinc usage shall not exceed 16 million pounds of zinc during any consecutive 12 month period. [Rule 62-4.070(3), F.A.C. and Permit No. 0570069-015-AC]

8. Hours of operation are not restricted. [Rule 62-4.070(3), F.A.C. and Permit No. 0570069-015-AC]

9. The permittee shall not cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. [Rule 62-296.320, F.A.C.]

10. The use of property, facilities, equipment, processes, products, or compounds, or the commission of paint overspraying or any other act, that causes or materially contributes to a public nuisance is prohibited, pursuant to the Hillsborough County Environmental Protection Act, Section 16, Chapter 84-446, Laws of Florida, as Amended.

11. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with the provision in Rule 62-296.320, F.A.C. These provisions are applicable to any source, including, but not limited to, vehicular movement, transportation of materials, construction, alterations, demolition or wrecking, or industrial related activities such as loading, unloading,

SPECIFIC CONDITIONS:

storing and handling. [Rule 62-296.320(4)(c), F.A.C.]

12. The maximum allowable emission rate for particulate matter for this source is set by Specific Condition No. 4. Because of the expense and complexity of conducting a stack test on minor sources of particulate matter, the Environmental Protection Commission of Hillsborough County pursuant to the authority granted under Rule 62-297.620(4), F.A.C. hereby allows the particulate testing to be waived in lieu of a visible emission standard not to exceed an opacity of 5%. [Rule 62-297.620(4), F.A.C.]

13. Test the kettle baghouse exhaust and the kettle enclosure for visible emissions, once per federal fiscal year (October 1 – September 30) with a target date of July 25. The EPA Method 9 test observation period on this source shall be at least thirty (30) minutes. The baghouse differential pressure readings as well as a description of the parts galvanized during the test shall be included in any compliance test report. Submit two copies of all test data to the Air Management Division of the Environmental Protection Commission of Hillsborough County within forty-five days of testing. Testing procedures shall be consistent with the requirements of Rule 62-297.310, F.A.C. [Rules 62-297.310(2)(b) and 62-297.310(4)(a)2, F.A.C.]

14. Testing of emissions shall be conducted with the source operating at capacity. During emissions testing, capacity shall be defined as a minimum of 3 dips in a 30 minute period while coating steel products which have the largest surface area for that day's operations. If it is impracticable to test at capacity, then the source may be tested at less than capacity; in this case subsequent source operation is limited to the number of dips conducted during the test per the time duration of the test (dips per time) until a new test is conducted. Once the unit is so limited, then operation at higher dipping rates is allowed for no more than fifteen days for purposes of additional compliance testing to regain the rated capacity in the permit, with prior notification to the EPC. Failure to submit the number of dips during the test and the actual operating conditions may invalidate the test. [Rules 62-4.070(3) and 62-297.310(2)(b), F.A.C.]

15. Compliance with the emission limitations of Specific Condition No. 6 shall be determined using EPA Methods 1, 2, 4, 5 and 9 contained in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297, F.A.C. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Rule 62-297, F.A.C. and 40 CFR 60, Appendix A. [Rules 62-297.310(2)(b) and 62-297.310(4)(a)2, F.A.C.]

16. The permittee shall notify the Air Compliance Section of the Environmental Protection Commission of Hillsborough County at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the contact person who will be responsible for coordinating and having such test conducted. [Rule 62-297.310(7)(a)9., F.A.C]

17. When the Environmental Protection Commission of Hillsborough County (EPC) after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in Rules 62-204, 62-210, 62-212, 62-

SPECIFIC CONDITIONS:

296, or 62-297, F.A.C., or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the source to conduct compliance tests which identify the nature and quantity of pollutant emissions from the source and to provide a report on the results of said tests to the EPC. [Rule 62-297.310(7)(b), F.A.C.]

18. The permittee shall operate and maintain a measuring device to determine the air pressure differential across the large kettle baghouse and the delivery pressure in the cleaning lines within 10% accuracy. [Rule 62-4.070(3), F.A.C.]

19. The process equipment and the pollution control equipment shall be maintained in good repair to perform adequately the function for which it was intended. In order to provide reasonable assurance that the equipment is properly operated and maintained, the permittee shall perform regular inspections in accordance with the manufacturer's recommendations and as specified in Specific Condition No. 20; repair and/or replace faulty equipment as necessary; and maintain records of such activities. [Rules 62-4.070(3) and 62-210.650, F.A.C.]

20. The following Operation and Maintenance (O&M) Plan for particulate control shall be followed on the schedule specified: [Rule 62-296.700(6), F.A.C. and Chapter 1.1-06, Rules of the EPCHC]

A) Process Parameters:

<u>Large Kettle Baghouse</u>

1. Source Designators: Large Kettle Baghouse
2. Baghouse Manufacturer: Aeropulse, Inc.
3. Model Number: PR-4808-12-H
4. Actual Flow Rate: 36,000 acfm
5. Exit Temperature: ~94°F
6. Efficiency Rating at Design Capacity: 99.9%
7. Pressure Drop: 0~6 in. H_20
8. Stack Height Above Ground: 15 ft.
9. Exit Diameter: 3.1 ft.
10. Water Vapor Content: 3%
11. Process Controlled by Collection System: Large galvanizing kettle
12. Operation Schedule: 8,760 hrs/yr

B) The following observations, checks and operations apply to the kettle baghouse and shall be conducted on the schedule specified:

SPECIFIC CONDITIONS:

Daily (When in operation)

- Check differential pressure across bags and record.
  If the pressure reads 5.5 or above, turn on air pulse system for 30 min. and recheck. This is an indicator of bag buildup.
- Observe stack (visual).
- Walk through system listening for proper operations (audible leaks, proper fan and motor functions, bag cleaning system, etc.)
- Note any unusual occurrence in the process being ventilated.
- Observe all indicators on the control panel.
- Check the reverse air pressure.
- Check the cycle rotary cylinder.
- Shut down the bag house and allow grinder to cycle for 5 minutes.
- Check the bag house hatch.

Weekly

- Inspect the air lock bearings for lubrication.
- Check the packing glands.
- Open up the bottom hatch and visually inspect for water intrusion.
- Operate all damper valves if any (isolation, by-pass, etc.).
- Check the bag cleaning sequence to see that all valves/solenoids are functioning properly. Check the inlet filter on the reverse air compressor or the blower.
- Check the compressed air lines, including line oilers and filters.
- Grease the shaft, total of 2 grease fittings, one full pump per bearing of Polyrex Em lube.

Monthly

- Check all moving parts.
- Inspect the blower fans for corrosion and material build-up.
- Check all drive belts and chains for wear and tension.
- Check all hoses and clamps.
- Check the accuracy of all indicating equipment (disconnect to assure device zeros).
- Externally the inspect housing, structural steel, and all ductwork for corrosion.
- Grease the motor fitting, one pump per fitting.

Quarterly

- Inspect the baffle plate for wear.
- Thoroughly inspect bags.

SPECIFIC CONDITIONS:

- Check the ductwork for dust build-up where accessible.
- Observe the damper valves for proper seating if applicable.
- Check the gaskets on all doors.
- Inspect the paint.

Annually

- Check all bolts.
- Check welds and inspect for cracks or other stress failures.
- Inspect the hopper for wear and rust.
- Check the airlock rotor for wear.
- Check the condition of a bag support cage.

NOTE: Lubrication schedule for 100 hp electric drive Motor:

- Drive end bearing lube at 3000 hrs, or June of each year, with 1.22 ounces of Polyrex EM lube. 1 full pump.
- Fan end of motor lube at 6500 hrs, or October of each year, with .86 ounces of Polyrex em lube, ½ Pump.

C) Records. Records of inspections, maintenance, and performance parameters shall be retained for a minimum of three years and shall be made available to the Environmental Protection Commission of Hillsborough County upon request. [Rules 62-4.070(3) and 62-4.160(14), F.A.C.]

21. In order to demonstrate compliance with Specific Condition Nos. 4, 7, and 20, the permittee shall maintain monthly records of operations for the most recent three year period. The records shall be made available to the Environmental Protection Commission of Hillsborough County, state or federal air pollution agency upon request. The records shall include, but are not limited to, the following: [Rules 62-4.070(3) and 62-4.160(14), F.A.C.]

A) Month, Year
B) Monthly and Rolling 12 Month Summary of the Baghouse Operating Hours
C) Monthly and Rolling 12 Month Summary of the Amount of Zinc Used
D) Equipment Maintenance and Repair Activities as required by Specific Condition No. 20

22. The permittee shall submit to the Environmental Protection Commission of Hillsborough County each calendar year, a completed DEP Form 62-210.900(5), "Annual Operating Report (AOR) for Air Pollutant Emitting Facility", for the preceding calendar year. The AOR shall be submitted by April 1 of the following year. [Rule 62-210.370(3), F.A.C.]

23. The permittee shall provide timely notification to the Environmental Protection Commission of

SPECIFIC CONDITIONS:

Hillsborough County prior to implementing any changes that may result in a modification to this permit pursuant to Rule 62-210.200(185), F.A.C., Modification. The changes do not include normal maintenance, but may include, and are not limited to, the following, and may also require prior authorization before implementation: [Rules 62-4.070(3) and 62-210.300, F.A.C.]

A) Alteration or replacement of any equipment or major component of such equipment.
B) Installation or addition of any equipment which is a source of air pollution.

24. If the permittee wishes to transfer this permit to another owner, an "Application for Transfer of Permit" (DEP Form 62-210.900(7)) shall be submitted, in duplicate, to the Environmental Protection Commission of Hillsborough County within 30 days after the sale or legal transfer of the permitted facility. [Rule 62-4.120, F.A.C.]

25. Prior to sixty days before the expiration of this operating permit, the permittee shall apply for a renewal of the permit using the current version of the permit renewal application form. A renewal application shall be timely and sufficient. If the application is submitted prior to sixty days before the 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 sufficient, the existing permit shall remain in effect until the renewal application has been finally acted upon by the EPC or, if there is court review of the final agency action, until a later date is required by Section 120.60, Florida Statutes. [Rule 62-4.090, F.A.C.]

ENVIRONMENTAL PROTECTION COMMISSION
OF HILLSBOROUGH COUNTY

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Richard D. Garrity, Ph.D.
Executive Director