



Charlie Crist  
Governor

Ana M. Viamonte Ros, M.D., M.P.H.  
State Surgeon General

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**INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT**  
**PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT**

July 2, 2009

**ELECTRONIC CORRESPONDENCE**

[cbiondo@psm.com](mailto:cbiondo@psm.com)

Charles Biondo  
Power Systems Mfg., LLC  
1440 West Indiantown Road  
Jupiter, FL 33458

Re: DRAFT Air Construction Permit No. 0990687-001-AC

Dear Mr. Biondo:

One copy of the Technical Evaluation and Preliminary Determination, the combined Public Notice, and the Draft Air Construction Permit, for Power Systems Mfg., LLC, located 1440 West Indiantown Road, Palm Beach County, is enclosed. The permitting authority's "INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT" and the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT" must be published as soon as possible. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Laxmana Tallam, P.E., at the below letterhead address. If you have any other questions, please contact Mr. Tallam at 561-355-3136, ext. 1142.

Sincerely,

A handwritten signature in blue ink, appearing to read "James E. Stormer", written over a horizontal line.

James E. Stormer, Q.E.P., Environmental Administrator  
Air/Pollution Control Section  
Division of Environmental Health and Engineering

Enclosures



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Post Office Box 29 / 901 Evernia Street, West Palm Beach, FL. 33402  
Jean M. Malecki, M.D., MPH, FACPM, Director  
[www.pbchd.com](http://www.pbchd.com)

In the Matter of an  
Application for Permits by:

Power Systems Mfg., LLC  
1440 West Indiantown Road  
Jupiter, FL 33458

DRAFT Permit No.: 0990687-001-AC  
Palm Beach County

**INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT**

The Palm Beach County (PBC) Health Department (permitting authority) gives notice of its intent to issue an Air Construction Permit (copy of the DRAFT Air Construction Permit attached) for the Non-Title V source detailed in the application specified above and the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

On June 11, 2009, the Power Systems Mfg., LLC, applied to the Palm Beach County Health Department for an Air Construction Permit for its facility, located at 1440 West Indiantown Road, Jupiter, FL 33458.

The project involves the installation of a chemical stripper to remove coating material from gas turbine parts prior to refurbishing. The process takes place in series of steps, and some or all of the steps may be repeated several times until complete coating removal is achieved. These steps are; acidic attack on the coating material to be removed, removal of the acidic residues by rinsing, alkaline attack (NaOH) on reaction products of the first step, removal of alkaline residue by rinsing, and drying of the parts.

Gaseous emissions from the stripper are controlled by an alkaline scrubber designed to operate on a continuous basis. The scrubber incorporates two-stage mist elimination system for the removal of HCl acid aerosols. The estimated emissions of HCl after the scrubber are 0.198 tons per year.

The Florida Department of Environmental Protection (FDEP) has permitting jurisdiction under the provisions of Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-213 of the Florida Administrative Code (F.A.C.). However, in accordance with Section 403.182, F.S., DEP recognizes the Health Department as the approved local air pollution control program in Palm Beach County. As such, FDEP and the PBC Health Department have entered into a Specific Operating Agreement that authorizes the Health Department to issue or deny permits for this type of air pollution source located in Palm Beach County. The Health Department has determined that an Air Construction Permit is required to construct and to commence or continue operations at the described facility.

The permitting authority intends to issue the Air Construction Permit based on the belief that reasonable assurances have been provided to indicate that the construction activity and operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.087, F.S., and Rules 62-110.106 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT." The notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the permitting authority at the address or telephone number listed

below. The applicant shall provide proof of publication to the permitting authority's office, Attention: Air Pollution Control Section, Palm Beach County Health Department, Post Office Box 29, West Palm Beach, FL 33402-0029 (Telephone: 561/355-3136; Fax: 561/804-9405), within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

The permitting authority will issue the Air Construction Permit, in accordance with the conditions of the attached DRAFT Air Construction Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed Draft Air Construction Permit issuance action for a period of 14 (fourteen) days from the date of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Air Construction Permit, the permitting authority shall issue a Revised DRAFT Air Construction Permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting 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 Palm Beach County Health Department Legal Office, located at 826 Evernia Street in West Palm Beach, Florida, 33401 (Telephone: (561) 355-3007, Fax (561) 804-9405). Petitions filed by the permits' 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 publication of the public notice or within 14 (fourteen) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for a 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, F.A.C.

A petition that disputes the material facts on which the permitting authority'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 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 permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application(s) have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation will not be available in this proceeding.

*Executed in West Palm Beach, Florida*  
PALM BEACH COUNTY HEALTH DEPARTMENT



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James E. Stormer, Q.E.P., Environmental Administrator  
Air & Waste Program  
Division of Environmental Health and Engineering

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE and the Draft Air Construction Permit Package) and all copies were sent by email (with Read Receipt) before the close of business on 07/02/09 to the person(s) listed:

Charles Biondo, Power Systems Mfg. email [cbiondo@psm.com](mailto:cbiondo@psm.com)

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT (including the combined PUBLIC NOTICE and the Draft Air Construction Permit Package) were sent by email (with Read Receipt) on the same date to the person(s) listed or as otherwise noted:

Adam Hart, P.E. HRC Designs email [Adam.Hart@psm.com](mailto:Adam.Hart@psm.com)

Geon Gordon, Power Systems Mfg. email [Geon.Gordon@psm.com](mailto:Geon.Gordon@psm.com)

Mark Avakian, P.E. email [mark@mavakianandassoc.com](mailto:mark@mavakianandassoc.com)  
Avakian & Associates, LLC

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT (including the DRAFT Air Construction Permit package) were sent by email on the same date to the person(s) listed or as otherwise noted:

Lennon Anderson, P.E. email [Lennon.Anderson@dep.state.fl.us](mailto:Lennon.Anderson@dep.state.fl.us)  
Southeast District Office, FDEP

**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.

Layman Tallam (Clerk) 07/02/09 (Date)

**PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT**

**PALM BEACH COUNTY HEALTH DEPARTMENT**

DRAFT Air Construction Permit No.: 0990687-001-AC

Power Systems Mfg., LLC, Jupiter

Palm Beach County

The Palm Beach County (PBC) Health Department (permitting authority) gives notice of its intent to issue an Air Construction Permit for the Power Systems Mfg., LLC, located at 1440 West Indiantown Road, Jupiter, in Palm Beach County, Florida. The applicant's name and address are: Mr. Charles Biondo, Power Systems Mfg., LLC, 1440 West Indiantown Road, Jupiter, FL 33458.

The project involves the installation of a chemical stripper to remove coating material from gas turbine parts prior to refurbishing. The process takes place in series of steps, and some or all of the steps may be repeated several times until complete coating removal is achieved. These steps are; acidic attack on the coating material to be removed, removal of the acidic residues by rinsing, alkaline attack (NaOH) on reaction products of the first step, removal of alkaline residue by rinsing, and drying of the parts.

Gaseous emissions from the stripper are controlled by an alkaline scrubber designed to operate on a continuous basis. The scrubber incorporates two-stage mist elimination system for the removal of HCl acid aerosols. The estimated emissions of HCl after the scrubber are 0.198 tons per year.

The permitting authority will issue the Air Construction Permit in accordance with the conditions of the DRAFT Air Construction Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed Draft Air Construction Permit issuance action for a period of 14 (fourteen) days from the date of publication of this Public Notice. Written comments should be provided to the permitting authority's office: Palm Beach County Health Department, Post Office Box 29, West Palm Beach, FL 33402-029. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this Draft Air Construction Permit, the permitting authority shall issue a Revised Draft Air Construction Permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 of the Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the permitting authority's Legal Office, Attention: Chief Legal Officer, located at 826 Evernia Street in West Palm Beach, Florida, 33401 (Telephone: (561) 355-3007, Fax (561) 804-9405). 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 publication of the public notice or within 14 (fourteen) days of receipt of the notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority 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 applicable 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 Florida Administrative Code (F.A.C.).

A petition that disputes the material facts on which the permitting authority'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 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 permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application(s) have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available for this proceeding.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Permitting Authority:

Palm Beach County Health Department  
901 Evernia Street  
West Palm Beach, FL 33401  
Telephone: 561/355-3136  
Fax: 561/804-9405

The complete project file includes the Technical Evaluation and Preliminary Determination and associated Draft Air Construction Permit, the application(s), and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Laxmana Tallam, P.E., at the above address, or call 561/355-3136, extension 1142, for additional information.



Charlie Crist  
Governor

Ana M. Viamonte Ros, M.D., M.P.H.  
State Surgeon General

**JULY 2, 2009**

**ELECTRONIC CORRESPONDENCE**

cbiondo@psm.com

**ISSUED TO (PERMITTEE):**

Power Systems Mfg., LLC  
1440 West Indiantown Road  
Jupiter, FL 33458

**Authorized Representative:**

Charles Biondo

<b>ARMS No.</b>	0990687
<b>Air Permit No.</b>	0990687-001-AC
<b>Issued:</b>	<b>DRAFT</b>
<b>Expires:</b>	<b>DRAFT</b>

**PROJECT DETAILS:**

**Project Name:** Initial Air Construction Permit to a chemical stripper to remove the coating material from gas turbine parts. Gaseous emissions from the stripper are controlled by an alkaline scrubber

**Project Location:** 1440 West Indiantown Road, Jupiter, FL 33458

**UTM Coordinates:** Zone 17; 587.24 km E; 2979.25 km N

**Latitude:** 26° 55' 56.72" North / **Longitude:** 80° 07' 16.61" West

**STATEMENT OF BASIS:**

The Florida Department of Environmental Protection (DEP) has permitting jurisdiction for this project pursuant to Section 403.087 of the Florida Statutes (F.S.). However, in accordance with Section 403.182, F.S., the DEP recognizes the Palm Beach County Health Department (Health Department) as the approved local air pollution control program in Palm Beach County. As such, the DEP and the Health Department have entered into a Specific Operating Agreement that authorizes the Health Department to issue or deny permits to for this type of air pollution source located in Palm Beach County. Accordingly, the Health Department issues this permit under the provisions of Chapter 403, F.S. and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The permittee is authorized to perform the work for the proposed project in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Health Department.

**ISSUED BY:**

*Executed in West Palm Beach, Florida*

PALM BEACH COUNTY HEALTH DEPARTMENT

**DRAFT**

James E. Stormer, Q.E.P., Environmental Administrator  
Air Pollution Control Section  
Division of Environmental Health and Engineering



Post Office Box 29 / 901 Evernia Street, West Palm Beach, FL. 33402  
Jean M. Malecki, M.D., MPH, FACPM, Director  
www.pbchd.com

**SECTION I. FACILITY HISTORY****PERMIT HISTORY**

07/01/2009: Health Department received additional information  
 06/25/2009: Health Department received additional information  
 06/11/2009: Health Department received application for construction permit

**PROJECT DESCRIPTION**

The project involves the installation of a chemical stripper to remove coating material from gas turbine parts prior to refurbishing. The process takes place in series of steps, and some or all of the steps may be repeated several times until complete coating removal is achieved. These steps are; acidic attack on the coating material to be removed, removal of the acidic residues by rinsing, alkaline attack (NaOH) on reaction products of the first step, removal of alkaline residue by rinsing, and drying of the parts.

Gaseous emissions of acid from the stripper are controlled by an alkaline scrubber that is designed to operate on a continuous basis. The scrubber incorporates two-stage mist elimination system for the removal of HCl acid aerosols. The estimated uncontrolled emissions of HCl are 19.5 tons per year (TPY), and the controlled HCl emissions are estimated to be 0.194 TPY. This estimation is based on four HCl tanks containing 20% at 158°F and operating 8760 hrs per year.

The facility is permitted as a synthetic minor source for Hydrogen Chloride (HCl). Based on the permit application, this facility is not a major source of hazardous air pollutants (HAPs).

**REGULATORY CLASSIFICATION**

Title III: The facility is not a major source of hazardous air pollutants (HAPs).  
Title IV: The facility will not operate units subject to the acid rain provisions of the Clean Air Act.  
Title V: The facility is not a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C. The facility is a synthetic minor source for HCl.  
PSD: The permittee is a PSD minor facility in accordance with Rule 62-212.400, F.A.C.  
RACT: The facility does not have any emission units that are subject to RACT regulations.  
NSPS: The facility is not subject to any requirements of 40 CFR 60.  
NESHAP: The facility is subject to the requirements of 40 CFR 61, Subpart M, Asbestos.

**PERMIT CONTENT**

- Section I: Summary Information
- Section II: Facility-Wide Specific Conditions
- Section III: Emissions Unit Specific Conditions
- Section IV: Appendices
  - Appendix A: General Permit Conditions*
  - Appendix B: Abbreviations, Acronyms, Citations, and Identification Numbers*

**SUMMARY OF EMISSION UNITS**

EU ID No.	Status	Brief Description
001	Regulated	Chemical stripping plant equipped with an Alkaline fume Scrubber.
	Exempt	Thermal spray coating process

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**SECTION II. FACILITY-WIDE GENERAL CONDITIONS****1.0 ADMINISTRATIVE REQUIREMENTS**

- 1.1 Regulating Agencies: All applications, reports, tests, and notifications shall be submitted to the Air Pollution Control Section of the Palm Beach County Health Department (Health Department) at P.O. Box 29 (901 Evernia Street), West Palm Beach, Florida, 33402-0029, and telephone number (561) 355-3136. **[Specific Operating Agreement]**
- 1.2 General Conditions: The permittee shall be aware of, and operate under the attached General Conditions listed in *Appendix A* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. **[Rule 62-4.160, F.A.C.]**
- 1.3 Citation Format: *Appendix B* of this permit provides the format for citing applicable regulations.
- 1.4 Operation Permit Required: This permit authorizes construction and/or installation of the permitted emission units and initial operation to determine compliance with Department 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 Palm Beach County Health Department, Air Pollution Control Section. To apply for an operation permit, the applicant shall submit the appropriate application fee and, in quadruplicate, the appropriate application form, a certification that construction was completed with a notation of any deviations from the conditions in the construction permit, compliance test results, and such additional information as the Department may by law require. **[Rules 62-4.090, 62-4.050, 62-4.220, and 62-210.300, F.A.C.]**
- 1.5 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 Palm Beach County Health Department, Air Pollution Control Section **at least 60 days prior** to the expiration date of this permit. **[Rules 62-4.050, 62-4.080, and 62-4.220, F.A.C.]**
- 1.6 Applicable Regulations: This facility is subject to the following regulations: Florida Administrative Code Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. **[Rule 62-210.300, F.A.C. and the SOA]**
- 1.7 Source Obligation:
- Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between construction of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the PBCHD in the permit.
  - 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 Rules 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.]**

**2.0 EMISSION LIMITING STANDARDS**

**SECTION II. FACILITY-WIDE GENERAL CONDITIONS**

- 2.1 General Particulate Emission Limiting Standards: General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, the permittee shall not:
- (a) Cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as No. 1 on the Ringelmann Chart (20 percent opacity). **[Rule 62-296.320(4)(b)1., F.A.C.]**
  - (b) If the presence of uncombined water is the only reason for failure to meet the visible emissions standards given in Rule 62-296.320(4)1, F.A.C., such failure shall not be a violation of the rule. **[Rule 62-296.320(4)(b)3, F.A.C.]**
  - (c) All visible emissions test performed pursuant to the requirements of Rule 62-296.320(b)(4)1, F.A.C. shall use EPA Reference Method 9, and shall meet all applicable requirements of Chapter 62-297, F.A.C. **[Rule 62-296.320(4)(b)1, F.A.C.]**
- 2.2 Objectionable Odors: Objectionable Odor Prohibited: 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(2), F.A.C.]**
- Note: An objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-210.200, F.A.C.]*
- 2.3 General VOC Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions: The permittee shall allow no person to store, pump, handle, process, load, unload, or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. **[Rule 62-296.320(1)(a), F.A.C.]**
- 2.4 Unconfined Particulate Emission Limiting Standards: Unconfined Emissions of Particulate Matter: The permittee shall not cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions shall include the following:
- (a) Paving and maintenance of roads, parking areas and yards.
  - (b) Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
  - (c) Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
  - (d) Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
  - (e) Landscaping or planting of vegetation.
  - (f) Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
  - (g) Confining abrasive blasting where possible.
  - (h) Enclosure or covering of conveyor systems.
- [Rule 62-296.320(4)(c), F.A.C.]**
- 2.5 Prevention of Accidental Releases (Section 112(r) of CAA).
- The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 1515, Lanham-Seabrook, MD 20703-1515, Telephone: 301/429-5018.
- [40 CFR 68]

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**SECTION II. FACILITY-WIDE GENERAL CONDITIONS****3.0 PERFORMANCE STANDARDS**

- 3.1 Circumvention: The permittee shall not circumvent air pollution control equipment/methods or allow the emission of air pollutants without the equipment/methods operating properly. **[Rule 62-210.650, F.A.C.]**
- 3.2 Excess Emissions Requirements:
- (a) Excess emissions resulting from start-up, shutdown or malfunction of these emissions units shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period unless specifically authorized by the Health Department for longer duration. **[Rule 62-210.700(1), F.A.C.]**
  - (b) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during start-up, shutdown, or malfunction are prohibited. **[Rule 62-210.700(4), F.A.C.]**
  - (c) In case of excess emissions resulting from malfunctions, the permittee shall notify the Air Pollution Control Section of the Palm Beach County Health Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the problem; and the corrective actions being taken to prevent recurrence. **[Rule 62-210.700(6), F.A.C.]**

**4.0 COMPLIANCE MONITORING REQUIREMENTS**

- 4.1 Retain Records: Unless otherwise specified in this permit, all records and reports required by this permit shall be kept for at least 3 years from the date the information was recorded. **[Rule 62-4.160(14)(b), F.A.C.]**
- 4.2 Test Procedures: All test methods and procedures shall be performed in accordance with the applicable requirements of Chapter 62-297, F.A.C. **[Rule 62-297.100, F.A.C.]**
- 4.3 Operational Rate During Testing: Unless otherwise stated in the applicable emission-limiting standard for a rule, testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. **[Rule 62-297.310(2), F.A.C.]**
- 4.4 Test Notification: At least 15 days prior to the date on which each formal compliance test is to begin, the permittee shall notify the Health Department in writing of: the test date; the expected test time; the location of the test; the facility contact person responsible for coordinating the test; and the person or company conducting test. The 15 day notification requirement may be waived at the discretion of the Health Department. Likewise, if circumstances prevent testing during the 60-day test window specified for the emissions unit, the owner or operator may request an alternate test date before the expiration of this window. **[Rule 62-297.310(7)(a)9., F.A.C.]**
- 4.5 Special Compliance Tests: When the Health Department, 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 a DEP rule or permit is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Health Department. **[Rule 62-297.310(7)(b), F.A.C.]**

**5.0 REPORTS REQUIRED**

- 5.1 Annual Operations Report: The annual operating report shall be submitted to the Health Department by April 1 of the following year. If the report is submitted using the FDEP's electronic annual operating report software, there is no requirement to submit a copy to the Health Department.

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**SECTION II. FACILITY-WIDE GENERAL CONDITIONS****[Rule 62-210.370(3), F.A.C.]**

- 5.2 Emission Compliance Stack Test Reports: For each required emissions compliance test, a report indicating the results of the test shall be filed with the Health Department as soon as practical, but no later than 45 days after the last sampling run is completed. The report shall provide sufficient detail on the tested emissions unit and the procedures used to allow the Health Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in **Rule 62-297.310(8)(c), F.A.C.** Additional report information may be specified for a given group of emissions units in this permit. **[Rule 62-297.310(8), F.A.C.]**

## SECTION III. EMISSION-UNIT SPECIFIC CONDITIONS

**SUBSECTION A. This subsection of the permit addresses the following group of emissions units:**

EU ID No	Status	Brief Description
001	Regulated	<p><b>Chemical stripping operation with an Alkaline Scrubber.</b></p> <p>The chemical stripper will serve to remove previous metallic coatings on turbine components. This process uses acid (HCl) and caustic (NaOH) solutions.</p> <p>The emissions of HCl are controlled by an alkaline scrubber manufactured by DUALL division (or equivalent). The scrubber operates at 6000 cfm, 8-9.5 pH, and recycles NaOH/H<sub>2</sub>O as scrubbing liquid at a rate of 52-75 gph</p>

## OPERATING RESTRICTIONS

III.A.1 Methods of Operation: The permittee shall not allow, cause, suffer or permit any change in the method(s) of operation resulting in increased emissions, without prior authorization from the Permitting Authority. **[Rule 62-4.070(3), F.A.C.]**

III.A.2 Permitted Capacity. The permittee shall not allow, cause, suffer or permit the operation of the emission unit in excess of the following without prior authorization from the Permitting Authority:

- Four (4) HCl tanks with a surface area of 16.11 ft<sup>2</sup> (each).

**[Rule 62-4.070(3), F.A.C., and Requested by applicant to escape Title V Regulations]**

*{Permitting Note: Based on the number & size of the tanks and 8760 hrs of operation per year, the estimated uncontrolled emissions of HCl are 19.8 tons per year. The estimated controlled emissions of HCl are 0.198 tons per year based on the 99% control efficiency.}*

III.A.3 Hours of Operation: The emission unit is allowed to operate continuously. **[Rule 62-4.070(3), F.A.C.]**

## COMPLIANCE MONITORING

III.A.4 Stripping operations: The owner or operator shall operate the stripping plant as per the manufacturer's specifications. The operation plan of the plant and the scrubber shall be available to operators at all times. **[Rule 62-4.070(3), F.A.C.]**

III.A.5 Alkaline Scrubber: The owner or operator shall operate the scrubber according to the manufacturer's specification in order to achieve the design control efficiency. **[Rule 62-4.070(3), F.A.C.]**

III.A.6 Operation and Maintenance Plan (O&M plan): The permittee shall maintain an O&M plan that shall be available for operators. The plan shall include a schedule for the maintenance and inspection of the scrubber and schedule for recording performance parameters of the scrubber. The records of inspection, maintenance and performance data of the scrubber shall be retained by the permittee for a minimum of three years and shall be make available to the Health Department upon request. **[Rule 62-4.070(3), F.A.C.]**

The performance parameters shall include, but may not be limited to, the following indicators:

- Pressure drop, total
- Pressure drop, scrubber
- Pressure drop, mist eliminator
- Liquor feed rate
- Liquor feed composition and pH
- Water makeup rate

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**SECTION III. EMISSION-UNIT SPECIFIC CONDITIONS**

III.A.7 Control Equipment Data: The O&M Plan shall include the identification of the scrubber including, but not limited to the following design specifications:

- Manufacturer
- Model name and number
- Design flow rate (liquid and/or gas)
- Efficiency rating at design capacity
- Pressure drop
- Scrubbing liquor composition.

**[Rule 62-4.070(3), F.A.C.]**

**REPORTING AND RECORDKEEPING REQUIREMENTS**

III.A.8 Record Keeping Requirements: The facility shall keep records of the following and shall be made them available to the Health Department upon request.

- Daily operating hours of the plant
- Inspection records of the plant and scrubber
- Draining and filling the tanks, amount of acid used
- Monitoring parameters for the scrubber, daily

**[Rule 62-4.070(3), F.A.C.]**

LIST OF APPENDICES

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<b>APPENDIX</b>	<b>DESCRIPTION</b>
A	General Permit Conditions
B	Abbreviations, Acronyms, Citations, and Identification Numbers (version dated 02/05/97)

APPENDIX A  
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

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- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- (a) Have access to and copy and records that must be kept under the conditions of the permit;
  - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- (a) A description of and cause of non-compliance; and
  - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the

APPENDIX A  
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

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Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.

G.13 This permit also constitutes:

- (a) Determination of Best Available Control Technology, (BACT does not apply)
- (b) Determination of Prevention of Significant Deterioration; (PSD does not apply) and
- (c) Compliance with New Source Performance Standards (NSPS does not apply).

G.14 The permittee shall comply with the following:

- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- (c) Records of monitoring information shall include:
  - 1. The date, exact place, and time of sampling or measurements;
  - 2. The person responsible for performing the sampling or measurements;
  - 3. The dates analyses were performed;
  - 4. The person responsible for performing the analyses;
  - 5. The analytical techniques or methods used; and
  - 6. The results of such analyses.

G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law, which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**APPENDIX B.****Abbreviations, Acronyms, Citations, and Identification Numbers****Abbreviations and Acronyms:****°F:** Degrees Fahrenheit**BACT:** Best Available Control Technology**CFR:** Code of Federal Regulations**DEP:** State of Florida, Department of Environmental Protection**DARM:** Division of Air Resource Management**EPA:** United States Environmental Protection Agency**F.A.C.:** Florida Administrative Code**F.S.:** Florida Statute**ISO:** International Standards Organization**LAT:** Latitude**LONG:** Longitude**MMBtu:** million British thermal units**MW:** Megawatt**ORIS:** Office of Regulatory Information Systems**SOA:** Specific Operating Agreement**UTM:** Universal Transverse Mercator**Citations:**

*The following examples illustrate the methods used in this permit to abbreviate and cite the references of rules, regulations, guidance memorandums, permit numbers, and ID numbers.*

Code of Federal Regulations:*Example:* **[40 CFR 60.334]**

Where:	40	reference to	Title 40
	CFR	reference to	Code of Federal Regulations
	60	reference to	Part 60
	60.334	reference to	Regulation 60.334

Florida Administrative Code (F.A.C.) Rules:*Example:* **[Rule 62-213, F.A.C.]**

Where:	62	reference to	Title 62
	62-213	reference to	Chapter 62-213
	62-213.205	reference to	Rule 62-213.205, F.A.C.

**ISO:** International Standards Organization refers to those conditions at 288 degrees K, 60 percent relative humidity, and 101.3 kilopascals pressure.

**APPENDIX B.****Abbreviations, Acronyms, Citations, and Identification Numbers****Identification Numbers:**Facility Identification (ID) Number:

*Example:* Facility ID No.: 1050221

*Where:*

105 = 3-digit number code identifying the facility is located in Polk County  
0221 = 4-digit number assigned by state database.

Permit Numbers:

*Example:* 1050221-002-AV, or  
1050221-001-AC

*Where:*

AC = Air Construction Permit  
AV = Air Operation Permit (Title V Source)  
105 = 3-digit number code identifying the facility is located in Polk County  
0221 = 4-digit number assigned by permit tracking database  
001 or 002 = 3-digit sequential project number assigned by permit tracking database

*Example:* PSD-FL-185  
PA95-01  
AC53-208321

*Where:*

PSD = Prevention of Significant Deterioration Permit  
PA = Power Plant Siting Act Permit  
AC = Old Air Construction Permit numbering

**TECHNICAL EVALUATION  
AND  
PRELIMINARY DETERMINATION**

**Draft Construction Air Permit No. 0990687-001-AC**

Power Systems Mfg., LLC  
1440 West Indiantown Road  
Jupiter, FL 33458

Palm Beach County, Florida

Permitting & Compliance Authority:

Palm Beach County Health Department  
Division of Environmental Health and Engineering  
Air Pollution Control Section  
P.O. Box 29 (901 Evernia Street)  
West Palm Beach, FL 33402-0029

June 29, 2009

**1.0 APPLICATION INFORMATION**

1.1 Applicant Name and Address

Charles Biondo (authorized representative)  
 1440 West Indiantown Road  
 Jupiter, FL 33458

1.2 Application Review

07/01/2009: Health Department received additional information  
 06/25/2009: Health Department received additional information  
 06/11/2009: Health Department received application for construction permit

**2.0 FACILITY INFORMATION**

2.1 Facility Location

1440 West Indiantown Road, Jupiter, FL 33458  
 UTM: Zone 17; 587.24 km E; 2979.25 km N  
 Lat/Long: 26° 55' 56.72" North / 80° 07' 16.61" West

2.2 Standard Industrial Classification Code (SIC # 8711)

Major Group Number	87	Engineering, Accounting, Research, Management, And Related Services
Group Number	871	Engineering, Architectural, And Surveying
Industry Number	8711	Engineering Services

2.3 Facility Category

Based on the specific conditions in the draft permit and the physical restrictions of the equipment, this facility is classified as a synthetic, non-Title V source of air pollution.

**3.0 PROJECT DESCRIPTION**

This facility consists of the following emissions units:

EMISSIONS UNIT No.	EMISSIONS UNIT DESCRIPTION
001	Chemical stripping plant equipped with an Alkaline fume Scrubber.
Exempt	Thermal spray coating process

On June 11, 2009, Power Systems Mfg., LLC, applied to the Palm Beach County Health Department for an Air Construction Permit for chemical stripping operations. The project involves the installation of a chemical stripper to remove coating material from gas turbine parts prior to refurbishing. The process takes place in series of steps, and some or all of the steps may be repeated several times until complete coating removal is achieved. These steps are; acidic attack on the

coating material to be removed, rinsing to remove the acidic residues, alkaline attack (NaOH) on reaction products of the first step, rinsing to remove alkaline residue, and drying of the parts.

Gaseous emissions from the stripper are controlled by an alkaline scrubber designed to operate on a continuous basis. The scrubber incorporates two-stage mist elimination system for the removal of HCl acid aerosols. The estimated uncontrolled emissions of HCl are 19.8 tons per year (TPY) based on 8760 hours of operation, and the controlled HCl emissions are estimated to be 0.198 TPY based on 99% control efficiency. This estimation is based on four tanks containing HCl (20% by wt) at 158°F.

The facility is permitted as a synthetic minor source for Hydrogen Chloride (HCl). Based on the permit application, this facility is not a major source of hazardous air pollutants (HAPs).

**Operation of the Stripping Process:** Parts are loaded manually onto a rack which is placed on a trolley and transported to the load/unload zone. The operator actuates a switch, which opens the air lock door. The operator pushes the trolley with rack into the load zone and pushed the switch again to close the door. At this point, the process is fully automated under computer (PLC) control. The operator does not have contact with the chemical stripper.

The part rack is lifted off the trolley by an overhead crane and delivered to the first HCl bath. The process progresses through multiple baths and rises. Once the process is completed, the rack is placed on an empty trolley located in the load/unload zone. The operator operates a switch to open the door and withdraws the product rack. Once removed the door switch is activated to close the door.

In order to maintain effectiveness in removing coatings, the four acid tanks must be periodically drained and refilled with fresh acid. The tanks are emptied by a closed pipe and pump system. The drain valve for the tank is opened and the pump is started. When the tank is drained the pump automatically shuts off through a low-level switch. The drain valve is then closed. Acid waste is pumped into the waste acid tank. The filling operation is controlled through a closed pump and pipe system. The operator must open the corresponding fill valve and then start the acid pump. The pump automatically shuts off when the fluid level in the tank is achieved through a high-level switch.

Chemicals are transferred into the caustic tank in the same manner.

**Operation of the Scrubber:** The scrubber is designed to operate on a continuous basis. It requires fresh water makeup and purge of reaction by-products. The particular installation is unable to gravity overflow the salts generated in the reaction of HCl with Sodium Hydroxide (NaOH), therefore, a line comes off the recycle pump discharge plumbing with a solenoid valve to periodically purge the accumulated salts from the recycle sump. There is a level switch, fresh water rotameter, and two solenoid valves that control the liquid level in the sump and keep the sump from accumulating too many dissolved solids.

The system is designed such that when the recycle pump is turned on, the solenoid valve on the fresh water line will open and allow the fresh water to flow through the rotameter at a rate of 18 gallons per hour (gph). This fresh water rate allows for 10 gph to be lost due to evaporation and then on average 8 gph to be purged from the scrubber system to prevent excessive salt build-up which would cause performance/maintenance issues. There is a level switch in the sump that opens/closes a solenoid valve located in the recycle pump discharge plumbing that will purge the accumulated salts from the system. The pH in the scrubber sump is maintained automatically with the supplied pH probe, analyzer, and chemical metering pump.

The scrubber incorporates a two-stage mist elimination system for the removal of HCl acid aerosols. When the exhaust stream from hot covered HCl process tanks is cooled and humidified in a packed bed scrubber, a portion of the HCl forms a fine acidic fog. The first stage of the mist eliminator is a coalescing mesh pad that grows and collects the fine HCl aerosols. The second stage of the mist eliminator is random dumped packing to capture any of the large coalesced droplets that escape the primary mist eliminator.

After exiting the scrubber, the exhaust stream goes through the fan into the breach entry stack. The breach entry stack allows the stack to mounted at a grade and extend above the roof to discharge the vapors up in the air to prevent exhaust stream from being captured in the buildings downwash.

**Scrubber Operating Parameters**

Design is based on four HCl tanks containing 20% by weight HCl at 158F.

Estimated inlet Loading	4.4 lbs HCl/hr (131 ppmv)
Estimated uncontrolled Emissions (based on 8760 hrs/yr of operation)	19.8 tons per year
Controlled Emissions	0.198 tons per year
Ventilation Rate	6,000 cfm
Recycle Rate Range	52-75 gpm
Expected Pressure Drop	4.5 to 5.5 inches W.C.
Fresh water makeup rate	18 gph
Estimated Evaporation rate	10 gph
Average blowdown Rate	8 gph
pH Range	8-9.5

**4.0 RULE APPLICABILITY**

The proposed project is subject to preconstruction review under the applicable provisions of Chapter 403, Florida Statutes, and Chapters 62-209 through 62-297 of the Florida Administrative Code (F.A.C.). This facility is located in Palm Beach County; an area designated as "maintenance" for the pollutant ozone and attainment for all other criteria pollutants in accordance with the chapter 62-204 F.A.C.

The proposed project is exempt from review under Rule 62-212.400 F.A.C., Prevention of Significant Deterioration (PSD), because this source is considered a minor facility for the purpose of PSD regulations (potential to emit less than 250 tons per year of pollutant).

The proposed facility shall comply with all applicable provisions of the Florida Administrative Code and, specifically, the following chapters and rules:

- Chapter 62-4, F.A.C** - **Permits.**
- Rule 62-4.160, F.A.C. - General Permit Conditions
- Chapter 62-204, F.A.C.** - **Air Pollution Control - General Provisions**
- Chapter 62-210, F.A.C.** - **Stationary Sources – General Requirements**
- Rule 62-210.300, F.A.C. - Permits Required.
- Rule 62-210.300(3)(b), F.A.C. - Generic and Temporary Exemptions
- Rule 62-210.350, F.A.C. - Public Notice and Comment.
- Rule 62-210.370, F.A.C. - Reports.
- Rule 62-210.650, F.A.C. - Circumvention.
- Rule 62-210.700, F.A.C. - Excess Emissions.
- Rule 62-210.900, F.A.C. - Forms and Instructions.
- Chapter 62-212, F.A.C.** - **Stationary Sources – Preconstruction Review**
- Rule 62-212.300, F.A.C. - General Preconstruction
- Chapter 62-296, F.A.C.** - **Stationary Sources – Emission Standards**
- Rule 62-296.310, F.A.C. - General Particulate Emission Limiting Standards.
- Rule 62-296.320, F.A.C. - General Pollutant Emission Limiting Standards.
- Chapter 62-297, F.A.C.** - **Stationary Sources - Emissions Monitoring**

- Rule 62-297.310, F.A.C - General Test Requirements.
- Rule 62.297-400, F.A.C. - EPA Test Methods Adopted by Reference

**5.0 SOURCE IMPACT ANALYSIS**

5.1 Potential Emissions: Estimation of potential emission of HCl is done by adding emissions due to vaporization and mist elimination.

Vaporization Emissions: The vaporization rate of a liquid or a gas dissolved in a liquid can be approximated by the following equation.

$$Q = (M * K * A * P) / (R_g * T_L)$$

Where:	Q =	Evaporation rate, lbs/min
	M =	MW of HCl (36.46 lb/lb-mole)
	K =	Mass transfer Coefficient $K = K_o(M_o/M)^{0.333}$ ( $K_o = 1.63$ ; $M_o = 18$ for water) = 1.288 ft/min
	P =	Vapor pressure of component above the liquid at the pressure, temperature, and concentration of the gas in the liquid (0.01184 atm)
	R <sub>g</sub> =	Ideal gas constant, atm-ft <sup>3</sup> /lbmol-R (0.7302)
	T =	Temperature of the Solution, deg, R (158F +460 = 628 R)

$Q = 0.0188 \text{ lb/min} \rightarrow 1.1256 \text{ lb/hr}$

Potential emission from mist are estimated to be 0.002 lb/hr

The total potential emission of HCl are estimated at 1.1276

Emissions from the Emission Unit 001 (Stripping Operations)

	Uncontrolled	Controlled
Pollutant	TPY	TPY
HCl	$(1.1276 \text{ lb/hr} * 8760/2000) = 19.8$	0.198

Total Emissions Facility-Wide

Pollutant	Controlled Emissions (TPY)
HCl	0.194

5.3 Title V Applicability Determination

The potential emissions of HCl are estimated based on 8760 hrs/yr of operations, assuming the tanks are open to air. However, the facility may not operate the unit for 8760 hrs/yr and the stripper operation is generally conducted while the tanks are closed, except for brief periods.

The facility stated that the scrubber would be operated according to the manufacturer’s specifications to assure the control efficiency of 99% or more. The permit specifies some parameters, such as liquor flow rate, pH, etc, that need to be monitored.

**6.0 CONCLUSION**

Based on the information provided by the applicant, the PBCHD has a reasonable assurance that the proposed project, as described in this evaluation, and subject to the conditions in the proposed draft permit, will not cause or contribute to a violation of any air quality standard or any other technical provision of Chapter 62-4 through 62-297 of the Florida Administrative Code.

## **CERTIFICATION**

Air Permit No.: 0990687-006-AC - DRAFT

Facility: Power Systems Mfg., LLC  
*Authorized Representative:* Charles Biondo

Location: 1440 West Indiantown Road  
Jupiter, FL 33458

**UTM Coordinates:** Zone 17; 587.24 km E; 2979.25 km N  
**Latitude:** 26° 55' 56.72" North / **Longitude:** 80° 07' 16.61" West

Project: **Air Construction Permit**

**THIS IS TO CERTIFY** that the air pollution engineering features described in the above referenced applications and subject to the proposed permit conditions provides reasonable assurance of compliance with applicable provisions of Chapter 403 of the Florida Statutes, and Chapters 62-4 through 62-297 of the Florida Administrative Code. However, other aspects of the design, including, but not limited to, the electrical, mechanical, structural, hydrological and geological features, have not been evaluated and are not part of this certification.

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Laxmana Tallam, P.E.  
# 53889  
Air Pollution Control Section  
Environmental Health and Engineering

Date: \_\_\_\_\_

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