

High Performance Systems, Inc. Winter Haven Facility

Facility ID No. 1050158
Polk County

Title V Air Operation Permit Renewal

Permit No. 1050158-006-AV
(Renewal of Title V Air Operation Permit No. 1050158-005-AV)



Permitting Authority:

State of Florida
Department of Environmental Protection
Air Resource Management, Southwest District
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926
Telephone: (813) 632-7600
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Compliance Authority:

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FINAL PERMIT

PERMITTEE:

High Performance Systems, Inc.
1201 American Superior Blvd.
Winter Haven, Florida 33884

Permit No. 1050158-006-AV
Winter Haven Facility
Facility ID No. 1050158
Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V air operation permit for the above referenced facility and to incorporate the terms and conditions of Construction Permit No. 1050158-007-AC. The existing Winter Haven Facility is located in Polk County at 1201 American Superior Blvd., Winter Haven, Florida. UTM Coordinates are: Zone 17, 427.99 East and 3096.41 North. Latitude is: 27° 59' 27" North; and, Longitude is: 81° 43' 56" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

Effective Date: April 9, 2012
Renewal Application Due Date: August 27, 2016
Expiration Date: April 9, 2017

Robert C. Wong
District Air Program Administrator
Southwest District

RCW/jm

SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

This facility consists of a conveyORIZED extruded aluminum metal finishing plant with three (3) emission units. The emission units are:

- EU No. 001 – Conveyor Paint Line (Booth Nos. 1 – 4), Touch-Up Spray Booth (Booth No. 5), and Paint Mix Room
- EU No. 002 – Paint Bake Oven w/afterburner and Tank No. 3 Heater
- EU No. 003 – Paint Stripping Furnace

The painting operations/activities associated with Emission Unit No. 001 are subject to the Maximum Achievable Control Technology (MACT) standards of 40 CFR 63, Subpart M – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products, which is adopted and incorporated by reference in Rule 62-204.800(11), F.A.C.

Also included in this permit are miscellaneous insignificant emissions units and/or activities.

Based on the Title V Air Operation Permit application dated January 26, 2012, this facility is a major source of hazardous air pollutants (HAPs).

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
<i>Regulated Emissions Units</i>	
001	Conveyor Paint Line (Booth Nos. 1 – 4), Touch-Up Spray Booth (Booth No. 5), and Paint Mix Room
002	Paint Bake Oven w/afterburner and Tank No. 3 Heater
003	Paint Stripping Furnace

Subsection C. Applicable Regulations.

Based on the Title V air operation permit renewal application received January 27, 2012, this facility is a major source of hazardous air pollutants (HAP). A summary of applicable regulations is shown in the following table.

Regulation	EU No(s).
40 CFR 63, Subpart A - General Provisions	001
40 CFR 63, Subpart M – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products	001
Rules 62-296.320, F.A.C.	001, 002, 0013
Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.	All

SECTION II. FACILITY-WIDE CONDITIONS.

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee shall comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW2. Not Federally Enforceable. Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An “objectionable odor” means 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 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW3. Not Federally Enforceable. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. All equipment, pipes, hoses, lids, fittings, etc., shall be operated/maintained in such a manner as to minimize leaks, fugitive emissions and spills of solvent materials. [Rule 62-296.320(1), F.A.C.]

FW4. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]

FW5. Not Federally Enforceable. Unconfined Particulate Matter. No person shall 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 to prevent emissions of unconfined particulate matter at this facility include:

- a. The application of water to paved and unpaved areas accommodating vehicular traffic as necessary.
- b. Removal of particulate matter from buildings or work areas as necessary.
- c. The use of paint spray booth filters to control overspray emissions.

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

Annual Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements for additional details.

FW6. Annual Operating Report. The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rule 62-210.370(3), F.A.C.]

FW7. Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: <http://www.dep.state.fl.us/air/emission/tvfee.htm>. [Rule 62-213.205, F.A.C.]

SECTION II. FACILITY-WIDE CONDITIONS.

FW8. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V permit was effective.
[Rules 62-213.440(3)(a)2. & 3. and (3)(b), F.A.C.]

FW9. Prevention of Accidental Releases (Section 112(r) of CAA). If and when the facility becomes subject to 112(r), the permittee shall:

- a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
- b. Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit Nos. 001, 002, and 003

The specific conditions in this section apply to the following emissions units:

<u>E.U. ID No.</u>	<u>Brief Description</u>
001	Conveyor Paint Line (Booth Nos. 1 – 4) Touch-Up Spray Booth No. 5 Paint Mix Room
002	Paint Bake Oven w/afterburner Tank No. 3 Heater
003	Paint Stripping Furnace

Aluminum metal before being painted must be racked with spacer bars in special racks to begin a surface pretreatment process. An overhead crane, located over 6 metal surface pretreatment tanks and a dry-off oven, moves the racks of material through the process.

Tank No. 1 cleans and slightly etches the metal with a heated solution of sodium hydroxide and small quantities of industrial detergents. The rack is then lowered into Tank No. 2, which is not heated and contains fresh water to rinse the metal. The rack is then lowered into Tank No. 3, which contains chromium phosphate. The rack is then lowered into Tank No.4, which is not heated and contains water to rinse the metal in the rack. The rack is then lowered into Tank No. 5, which contains acidulated water, but is not heated. Finally, the rack is lowered into Tank No. 6, which is heated, to be rinsed with hot water to hasten evaporation.

Tank Nos. 1 and 6 are heated by a tube from the Paint Bake Oven's afterburner's exhaust manifold. The tubes exiting the tanks join the manifold, which exhausts to the atmosphere through Stack No. 8.

Tank No. 3 is heated and the temperature is controlled at approximately 100°F by its own natural gas* fired burner at a maximum heat input rate of 780 BTU/hr. through a burner tube. Exhaust fumes exit the burner tube and join a manifold, which exhausts through Stack No. 8.

From the pretreatment process, the rack is lowered into an insignificant Dry-Off Oven with the air temperature controlled at approximately 250°F. The oven is fired with natural gas* at maximum heat input rate of 1.0 MMBTU/hr. and exhausts inside the building at a design rate of 500 ACFM.

Once the metal in the rack is dry, the rack is then taken to a paint line to begin the painting process. At the paint line the metal is hung with steel hooks onto a motorized conveyor. The conveyor moves the metal at a rate of approximately 7-10 ft./min. through a series of Binks electrostatic paint spray booths. Paint Spray Booth Nos. 1 and 2 are used to apply a prime coat and Paint Spray Booth Nos. 3 and 4 are used to apply a top coat. Paint Spray Booth No. 5 is used as a touch-up booth. Paint Spray Booth Nos. 1, 2, 3, and 4 exhaust through Stack Nos. 1, 2, 3, and 4, respectively. Paint Spray Booth No. 5 exhausts through 2 stacks designated as Stack Nos. 5 and 6. Stack Nos. 1 through 6 each exhausts at a design rate of 15,000 ACFM and each stack uses filter to control unconfined particulate emissions generated from paint overspray.

A paint mix room exhausts at a design rate of 1,000 ACFM through Stack No. 7.

The metal then moves through a custom built Consolidated Engineering Company paint bake oven to cure the paint to manufacturer's specifications. The paint bake oven is temperature controlled, visually monitored, and manually adjusted to provide an air temperature from ambient to 525°F. Natural gas* is used to fire the paint

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit Nos. 001, 002, and 003

bake oven at a maximum heat input rate of 4.0 MMBTU/hr. Exhaust from the paint bake oven vents to a custom built Consolidated Engineering Company afterburner, which exhausts through a manifold to tubes. The tubes then pass through Tank Nos. 1 and 6 before joining a second manifold that exhausts to Stack No. 8 at a measured rate of 6,334 ACFM. The afterburner is maintained at a minimum temperature of 1,340°F during its operation and the temperature is continuously monitored and continuously recorded. Due to placement of the thermocouple, 1,340°F is actually indicated as 1,050°F. Natural gas* is used to fire the afterburner at maximum heat input rate of 5.0 MMBTU/hr. Although this permit requires the use and proper operation of the afterburner, no credit is taken in this permit for the destruction of the volatile organic compounds (VOC) emitted.

After the hooks, which are used to hang the metal, are used several times a paint buildup occurs on them. Normally twice a week, for a 6-8 hour period each, hooks are processed through a Pollution Control Products Co. Controlled Pyrolysis, Model PTR 260 2058, paint stripping furnace. The furnace is fired with natural gas* at a total maximum heat input rate of 0.35 MMBTU/hr. and exhausts through Stack No. 9 at a design rate of 400 ACFM. A temperature controller controls the temperature of the furnace's primary chamber at approximately 800°F and the secondary chamber at approximately 1,600°F.

* Propane may be used as an alternative fuel during times of natural gas curtailment.

The painting operations/activities associated with Emission Unit No. 001 are subject to the MACT standards of 40 CFR 63, Subpart M – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (Surface Coating) as shown in APPENDIX M.

Compliance Assurance Monitoring (CAM) does not apply to Emission Unit Nos. 001, 002, and 003.

Essential Potential to Emit (PTE) Parameters

A.1. Hours of Operation. Each emissions unit is allowed to operate continuously (8,760 hours/year).
[Rule 62-210.200(PTE), F.A.C., Construction Permit No. 1050158-001-AC]

A.2. Methods of Operation.

a. *Fuels.* The Paint Stripping Furnace, the Paint Bake Oven, Paint Bake Oven Afterburner, and heated liquid tanks shall be fueled:

- (1) Primarily with natural gas or
- (2) Propane may be used as an alternative fuel during times of natural gas curtailment.

[Rule 62-210.200 (PTE), F.A.C.: Construction Permit No. 1050158-007-AC]

b. *Other.*

(1) The afterburner shall be operating whenever the Paint Bake Oven is in operation, and shall be maintained at a minimum temperature of 1,340°F (1,050°F indicated).

[Rule 62-296.320(1)(a), F.A.C.; Construction Permit No. 1050158-007-AC]

(2) The paint bake oven shall operate at the minimum temperature specified by the utilized paints' manufacturer and not to exceed 525°F.

[Rule 62-296.320(1)(a), F.A.C.; Construction Permit No. 1050158-001-AC]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit Nos. 001, 002, and 003

- (3) The paints stripping furnace shall have a temperature controller, which shall operate with the primary chamber at approximately 800°F and the secondary chamber at approximately 1,600°F, with a minimum temperature of 1,400°F.

[Rule 62-4.070(3), F.A.C.; Construction Permit No. 1050158-001-AC]

Emission Limitations and Standards

- A.3. Visible Emissions.** Visible emissions from Paint Spray Booth Nos. 1 - 5 (Stack Nos. 1 - 6), paint mix room (Stack No. 7), paint stripping furnace (Stack No. 9), and the Tank No. 3/paint bake oven/afterburner (Stack No. 8) shall not be equal to or exceed 20% opacity. In order to provide reasonable assurance that the emission activities are being properly operated, visible emissions should not exceed 5% opacity. If the 5% value is exceeded it will not be considered a violation in and of itself, but an indicator that additional controls and/or visible emission testing may be required.

[Rule 62-296.320(4)(b), F.A.C.; Construction Permit No. 1050158-007-AC]

- A.4. VOC Emissions.** Volatile organic compound (VOC) emissions from Emission Unit No. 001, including paint spray booths, touch-up booth, paint mix room, and use of cleanup solvents shall not exceed 193.4 pounds/hour (monthly average basis) and 240.0 tons for any consecutive 12-month period.

[Rule 62-210.200(PTE), F.A.C.; Construction Permit No. 1050158-007-AC]

Monitoring of Operations

- A.5. Paint Bake Oven Requirements.** The paint bake oven shall have a temperature controller, which is visually monitored and manually adjusted.

[Construction Permit No. 1050158-001-AC]

Continuous Monitoring Requirements

- A.6. Paint Bake Oven's Afterburner Requirements.** The paint bake oven's afterburner shall have a circular chart recorder to continuously monitor and record the operating temperature.

[Construction Permit No. 1050158-001-AC]

Test Methods and Procedures

- A.7. Special Testing Requirements.** If requested, visible emission testing shall be conducted using EPA Method 9 contained in Chapter 62-297, F.A.C. The test shall be conducted by a certified observer and be a minimum of 30 minutes in duration. The minimum requirements for stationary point source emissions test procedures and reporting shall be in accordance with Chapter 62-297, F.A.C.

[Rule 62-297.310, F.A.C.]

- A.8. Test Methods.** Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.

[Rule 62-297.401, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit Nos. 001, 002, and 003

- A9.** Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit.
[Rule 62-297.310, F.A.C.]

Recordkeeping Requirements

- A.10.** Recordkeeping Requirements. A monthly recordkeeping log shall be maintained in order to document compliance with the VOC emission limitations of Condition No. A.4. At a minimum the log shall:
- Identify and quantify the paints, coatings, and solvents used.
 - Record the hours of operation of the paint spray booths.
 - Record the total VOC emissions, in pounds.
 - Record the lbs./hr. (monthly average) of VOC emissions.
 - Record the most recent consecutive 12-month period total of VOC emissions, in tons.

Documentation of solvent used for clean-up shall use a mass balance method to determine usage (amount used for clean-up minus amount collected for disposal or recycle). The monthly logs shall be completed by the end of the following month. Supporting documentation (EPA VOC Data Sheets, MSD sheets, purchase order, etc.) shall be kept for each paint/coating/solvent, which includes sufficient information to determine VOC emissions. The log, records, and documents shall be retained on file for at least 5 years and made available to the Department upon request.

[Rules 62-4.070(3) and 62-213.440(1), F.A.C.]

Other Requirements

- A.11.** Federal NESHAP Requirements: The painting operations/activities associated with Emission Unit No. 001 are subject to the applicable provisions* of the MACT standards of 40 CFR 63, Subpart M MMM – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products, as adopted and incorporated by reference in Rule 62-204.800(11)(b), F.A.C. These provisions are shown in their entirety in APPENDIX MMM, which is a part of this permit. APPENDIX MMM includes the applicable provisions of 40 CFR 63, Subpart A – General Provisions.
[Rules 62-204.800(11) and 62-213.400, F.A.C.]

- * The following applicability references are based upon the permittee's Title V air operation renewal application dated January 26, 2012. Therefore, any change in operations may change the applicable provisions.

40 CFR 63 Subpart MMM Applicable Provision References

(Entire section applies unless otherwise noted with specific applicable subsection references)

What This Subpart Covers

63.3880 What is the purpose of this subpart?

63.3881 Am I subject to this subpart?

63.3881(a) through (c)

63.3881(e) through (e)(3)

63.3882 What parts of my plant does this subpart cover?

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit Nos. 001, 002, and 003

63.3883 When do I have to comply with this subpart?

63.3883(b) and (d)

Emission Limitations

63.3890 What emission limits must I meet?

63.3890(b) through (c)(2)(iii)

63.3891 What are my options for meeting the emission limits?

63.3891(a) and (b)

63.3892 What operating limits must I meet?

63.3892(a) and (c)

63.3893 What work practice standards must I meet?

63.3893(a)

General Compliance Requirements

63.3900 What are my general requirements for complying with this subpart?

63.3900(a)(1) and (b)

63.3901 What parts of the General Provisions apply to me?

Notifications, Reports, and Records

63.3910 What notifications must I submit?

63.3910(a) through (c)(8)(ii)

63.3910(10) and (11)

63.3920 What reports must I submit?

63.3920(a) through (a)(6)(iii)

63.3930 What records must I keep?

63.3930(a) through (c)(3)

63.3930(d) through (j)

63.3931 In what form and for how long must I keep my records?

Compliance Requirements for the Compliant Material Option

63.3940 By what date must I conduct the initial compliance demonstration?

63.3941 How do I demonstrate initial compliance with the emission limitations?

63.3942 How do I demonstrate continuous compliance with the emission limitations?

Compliance Requirements for the Emission Rate Without Add-On Controls Options?

63.3950 By what date must I conduct the initial compliance demonstration?

63.3951 How do I demonstrate initial compliance with the emission limitations?

63.3952 How do I demonstrate continuous compliance with the emission limitations?

Other Requirements and Information

63.3980 Who implements and enforces this subpart?

63.3981 What definitions apply to this subpart?

Table 3 to Subpart M MMM of Part 63 – Default Organic HAP Mass Fraction for Solvents and Solvent Blends

Table 4 to Subpart M MMM of Part 63 – Default Organic HAP Mass Fraction for Petroleum Solvent Groups

Appendix B to Subpart M MMM of Part 63 – Applicability of General Provisions to Subpart M MMM of Part 63

[Rules 62-204.800(11) and 62-213.400, F.A.C.; 40 CFR 63, Subpart M MMM]

SECTION IV. APPENDICES.

The Following Appendices Attached To This Permit Are Enforceable Parts Of This Permit:

- Appendix A, Glossary.
- Appendix I, List of Insignificant Emissions Units and/or Activities.
- Appendix MMMM, NESHAP, 40 CFR 63, Subpart MMMM – National Emissions Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products, which includes Subpart A – General Provisions.
- Appendix RR, Facility-wide Reporting Requirements.
- Appendix TR, Facility-wide Testing Requirements.
- Appendix TV, Title V General Conditions.

REFERENCED ATTACHMENTS.

The Following Attachments To This Permit Are Included For Applicant Convenience:

- Statement of Basis
- Table H, Permit History.