

Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Colleen M. Castille  
Secretary

April 21, 2004

Mr. John Stiefel II  
Stiefel Aluminum, Inc.  
4336 Knight-Station Road  
Lakeland, Florida 33812

Re: Facility No.: ~~1050373-001~~ 1010497-001

Dear Mr. Stiefel:

The Department has received the Title V General Permit Registration Form for the secondary aluminum sweat furnace facility that you submitted on March 16, 2004.

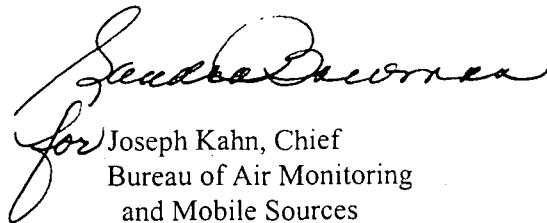
Please note that in January of each year the Department will be mailing fee notices to those facilities using the Title V general permit. This annual operation fee is \$50 and it is due and payable between January 15 and March 1 of each year the facility is in operation and is subject to the requirements of the Title V general permit.

If you have or expect to have any changes in your mailing address, location address, responsible official, or phone number, please notify the Department at the following address:

Title V General Permits Office  
Bureau of Air Monitoring and Mobile Sources MS 5510  
Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

If there are any changes in the facility status, including change of operating parameters or equipment, or if you have any additional questions regarding the Title V General Permit Program, please contact the district or local air program compliance inspector in your area.

Sincerely,

  
for Joseph Kahn, Chief  
Bureau of Air Monitoring  
and Mobile Sources

JK/jw

cc: Mr. Joel Smolen, Southwest District

"More Protection, Less Process"

Printed on recycled paper.

**EMISSION FEE DATES .....**

**SOC REPORTS .....**

**COMPLIANCE STATUS .....**

*No Activity Exist for this Facility*

1050373  
changed to 1010497

**SECONDARY ALUMINUM SWEAT FURNACE  
AIR GENERAL PERMIT REGISTRATION FORM**

Bureau of Air Monitoring  
& Mobile Sources

RECEIVED  
MAR 19 2004

**Registration Type**

Check one:

- NEW:** Initial registration for general permit for proposed *new* secondary aluminum sweat furnace(s).
- EXISTING:** Initial registration for general permit for *existing* secondary aluminum sweat furnace(s).
- RE-REGISTRATION:** Re-registration for general permit for secondary aluminum sweat furnace(s) upon expiration of current general permit.

**Facility Registration**

Facility Owner/Company Name (Name of corporation, agency, or individual owner):  
STIEFEL ALUMINUM, INC

Site Name (For example, plant name or number):  
STIEFEL ALUMINUM, INC

Facility Location: 4336 Knight-Station Road  
Street Address or Other Locator:  
City: Lakeland County: Polk Zip Code: 33812

Facility Identification Number (DEP use only; do not fill in):

~~XXXXXXXXXX-XXXX~~

**Responsible Official**

1010497-001

Responsible Official Name: John Stiefel II

Responsible Official Qualification (Check one or more of the following options, as applicable):

For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

Responsible Official Mailing Address...

Organization/Firm: STIEFEL ALUMINUM, INC Street Address: 18105 Princess Pt. Circle  
City: Tampa County: Hillsborough Zip Code: 33647

Responsible Official Telephone Numbers...

Business: (813) 951-2631 Fax: (813) 907-8523  
Mobile: (813) 951-2631

Responsible Official Email Address (optional): [johnstiefel@stiefelaluminum.com](mailto:johnstiefel@stiefelaluminum.com)

**Facility Description and Comments**

Number of secondary aluminum sweat furnace units on site:   1  

Is each secondary aluminum sweat furnace equipped with an afterburner that has a design residence time of at least 0.8 seconds and a design operating temperature of at least 1600 degrees Fahrenheit, and is the manufacturer's documentation of these design specifications maintained on-site?  Y  N (circle one)

If 'No,' explain \_\_\_\_\_  
\_\_\_\_\_

Does each secondary aluminum sweat furnace have an afterburner temperature monitoring device and temperature data recorder?  Y  N (circle one)

If 'No,' explain \_\_\_\_\_  
\_\_\_\_\_

Does each secondary aluminum sweat furnace have a written operation, maintenance, and monitoring (OM&M) plan, and is this plan maintained on-site?  Y  N (circle one)

If 'No,' explain \_\_\_\_\_  
\_\_\_\_\_

Does each secondary aluminum sweat furnace have a written startup, shutdown and malfunction plan, and is this plan maintained on-site?  Y  N (circle one)

If 'No,' explain \_\_\_\_\_  
\_\_\_\_\_

List and briefly describe all other process operations at the site that may emit air pollutants (for example, scrap shredders, degreasers, paint shops, boilers, emergency generators, etc.). Add any comments about the facility that would be helpful to the Department in understanding the nature of your operation (for example, describe the products made, amount of materials used, air pollution control equipment employed, and hours of operation).

The sweat furnace will use clean charge and post consumer aluminum wheels for production of high-grade aluminum alloys, equipped with three (3) oil burners with total heat input of 1.5 MMBTH using No. 2 oil. Afterburner will be used to meet FAC 62-213.300 (a, (b) & (f) - with a design residence time of at least 0.8 seconds and a design operating temperature of at least 1600 degrees Fahrenheit. High quality scrap and ingots will be charged with no flux used. Products will be sold to the die cast industry.

**Emission Calculations:**

Basis Furnace Operation: 12 hrs/day, 5 days/wk & 52 wk/yr.

Maximum volume of Oil needed by furnace & afterburner =  $\frac{1,500,000}{138,000} + 11.5 = 22.4 \text{ gallons/hr}$  use 23.0 gph

No. 2 Oil S% < 0.35%

1. Total PM from #2 Oil Combustion @ 2 lb/10<sup>3</sup> gal & AP-42 Emission Factor of 1.9 Lbs/Ton of Metal Processed

Total PM consists of MP and PM-10. According to AP-42, the particle size distribution for uncontrolled PM emissions is 60% PM-10 and 40% PM.

$$\text{PM Emissions} = \frac{23.0 \times 2.0}{1000} + \frac{1.9 \times 800}{2000} = 0.8 \text{ lbs/hr}$$

$$\text{Total PM Annual Emissions} = 0.8 \times 12 \times 5 \times 52 / 2000 = 1.25 \text{ TPY}$$

$$\text{PM}_{10} = 0.6 \times 1.25 = 0.75 \text{ TPY}$$

2. Sulfur Dioxide Emission Factor AP-42 = 142S/1000 gal\*

$$\text{Uncontrolled Sulfur Dioxide Emissions} = \frac{23.0 \times 142 \times 0.35}{1000} + \frac{0.9 \times 800}{2000} = 1.40 \text{ lbs/hr}$$

$$\text{Annual Sulfur Dioxide Emissions} = 12 \times 5 \times 52 \times 1.4 / 2000 = 2.18 \text{ TPY}$$

2. Nitrogen Oxides From Oil Combustion & AP-42 Emission Factor of 0.76 lbs/ton of Metal Produced

$$\text{Nitrogen Oxides Emission Factor} = 20 / 1000 \text{ gal*}$$

$$\text{Nitrogen Oxides Emissions} = \frac{23.0 \times 20}{1000} + \frac{0.76 \times 800}{2000} = 0.76 \text{ lbs/hr}$$

$$\text{Annual Nitrogen Dioxide Emissions} = 12 \times 5 \times 52 \times 0.76 / 2000 = 1.18 \text{ TPY}$$

3. Carbon Monoxide From Oil Combustion

$$\text{Carbon Monoxide Emission Factor} = 5 / 1000 \text{ gal*}$$

$$\text{Carbon Monoxide Emissions} = \frac{23 \times 5}{1000} = 0.11 \text{ lbs/hr}$$

$$\text{Emissions Potential PTE} = 12 \times 5 \times 52 \times 0.11 / 2000 = 0.18 \text{ TPY}$$

\*AP-42 Emission Factor for Distillate Oil

4. Emissions of Volatile Organic Compounds (VOC) – AP Emission Factor of 0.2 lbs/ton of Metal Produced

VOC Emissions will be destroyed by the afterburner at > 99% Emissions are negligible

**Summary Table**

Pollutant	Lbs/hr	TPY
Total PM	0.8	1.25
Sulfur Dioxide	1.4	2.18
Nitrogen Oxides	0.76	1.18
Carbon Monoxide	0.11	0.18



**STIEFEL ALUMINUM, INC**  
**4336 Knight-Station Road**  
**Lakeland, FL 33812**  
**Voice (813) 951-2631 Fax (813) 907-8523**

March 12, 2004

**Certified mail Return Receipt Requested**

General Permits Section  
Bureau of Air Monitoring and Mobile Sources, MS 5510  
Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Re.: Air General Permit Registration for A Secondary Aluminum Sweat furnace.

Dear Sirs:


Stiefel Aluminum, INC is proposing to install new aluminum sweat furnace at its facility in Lakeland, Polk County. Installation will commence after thirty days from date of receipt of this registration. This sweat furnace will be equipped with an afterburner that meets the design criteria and operation required by 40 CFR 63.1505(f)(1) and 63.1506(h). This Secondary Aluminum Processing Unit (SAPU) is the only emission unit, thus our facility is an area source.

Stiefel Aluminum, INC will have the following:

- An afterburner temperature monitoring device and temperature data recorder.
- A written operation, maintenance, and monitoring (OM&M) plan, this plan will be maintained on-site.
- A written startup, shutdown and malfunction plan, this plan will be maintained on-site.

Should there be a need for additional information, please let us know.

Respectfully submitted,

  
John L. Stiefel II, President

Cc.: Ike Habib, P.E. HB Engineering, Inc.

**STIEFEL ALUMINUM, LLC**  
**4336 Knight-Station Road**  
**Lakeland, FL 33812**  
**Voice (813) 951-2631 Fax (813) 907-8523**

March 16, 2004

Certified mail Return Receipt Requested

General Permits Section  
Bureau of Air Monitoring and Mobile Sources, MS 5510  
Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

RECEIVED  
MAR 19 2004  
Bureau of Air Monitoring  
& Mobile Sources

Re.: **REVISED PER CONVERSATION WITH JOHN GLUNN March 16, 2004**  
Air General Permit Registration for A Secondary Aluminum Sweat furnace.

Dear Sirs:


Stiefel Aluminum, INC is proposing to install an aluminum sweat furnace at its facility in Lakeland, Polk County. Installation will commence after thirty days from date of receipt of this registration. This sweat furnace will process aluminum scrap with substantial amounts of iron contamination and will be equipped with an afterburner that meets the design criteria and operation required by 40 CFR 63.1505(f)(1) and 63.1506(h). This Secondary Aluminum Processing Unit (SAPU) is the only emission unit, thus our facility is an area source.

Stiefel Aluminum, INC will have the following:

- An afterburner temperature monitoring device and temperature data recorder.
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John L. Stiefel II, President



**SECONDARY ALUMINUM SWEAT FURNACE  
AIR GENERAL PERMIT REGISTRATION FORM**

RECEIVED  
MAR 19 2004  
Bureau of Air Pollution  
& Mobile Sources

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**Facility Registration**

Facility Owner/Company Name (Name of corporation, agency, or individual owner):  
STIEFEL ALUMINUM, INC

Site Name (For example, plant name or number):  
STIEFEL ALUMINUM, INC

Facility Location: 4336 Knight-Station Road  
Street Address or Other Locator:  
City: Lakeland    County: Polk    Zip Code: 33812

Facility Identification Number (DEP use only; do not fill in):

**Responsible Official**

Responsible Official Name: John Stiefel

Responsible Official Qualification (Check one or more of the following options, as applicable):

For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

Responsible Official Mailing Address...

Organization/Firm: STIEFEL ALUMINUM, INC  
18105 Princess Point Circle  
City: Tampa    County: Polk    Zip Code: 33647

Responsible Official Telephone Numbers...

Business: (813) 951-2631    Fax: (813) 907-8523  
Mobile: (813) 951-2631

Responsible Official Email Address (optional): [johnstiefel@stiefelaluminum.com](mailto:johnstiefel@stiefelaluminum.com)

**Facility Description and Comments**

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If 'No,' explain \_\_\_\_\_

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Nitrogen Oxides	0.76	1.18
Carbon Monoxide	0.11	0.18

**Facility Contact (If different from Responsible Official)**

Facility Contact Name: John Stiefel		
Facility Contact Address: John Stiefel Street Address: 4336 Knight – Station Road City: Lakeland County: Polk Zip Code: 33812		
Facility Contact Telephone Numbers: Business: (813) 951- 2631 Fax: (813) 907- 8523 Mobile: (813) 951- 2631		
Facility Contact Email Address (optional): <u>johnstiefel@stiefelaluminum.com</u>		

**Surrender of Existing DEP Air Permit(s)**

Rule 62-213.300(2)(a)2., F.A.C., makes the surrender of all existing DEP air permits, other than the air general permit, a condition precedent for the entitlement to a general permit. Indicate with an "X" whether the responsible official surrenders such permit(s), listing the permit number(s), or whether no such permit(s) exist. Complete this portion of the form **ONLY** if this is an initial registration for general permit:

I hereby surrender all existing DEP air permits (other than the air general permit for which this registration form is submitted). The permit number(s) are:  
\_\_\_\_\_


No DEP air permits currently exist for the operation of the facility indicated in this registration form.

**Responsible Official Certification**

*I, the undersigned, am the responsible official of the facility addressed in this registration form. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this registration form are true, accurate and complete, and that the facility addressed in this registration form is entitled to use the Title V air general permit for secondary aluminum sweat furnaces. Further, I agree to operate and maintain the air pollutant emissions units and air pollution control equipment described in this registration form so as to comply with all terms and conditions of the Title V air general permit for secondary aluminum sweat furnaces as set forth at Rule 62-213.300(1)(f), F.A.C.*

*I will promptly notify the Department of any changes to the information contained in this registration form.*

John Stiefel  
Print name of responsible official

 Pres. best  
Signature

3/16/2004  
Date

New ID #  
1010497

**STIEFEL ALUMINUM, INC**  
**18105 Princess Point Circle**  
**Tampa, Florida 33647**  
Phone 813-951-2631  
Fax 813-907-8523

RECEIVED  
MAY 16 2005  
Bureau of Air Monitoring  
& Mobile Sources

May 14, 2005

Title V General Permits Office  
Bureau of Air Monitoring and Mobile Sources MS 5510  
Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Re: Facility No. 1050373-001

Please be advised that the above-mentioned facility has been relocated to:

Dade City Business Park  
14999 Old State Road 23  
Building Z  
Dade City, Florida 33525

The mailing address for all correspondence is:

Stiefel Aluminum  
18105 Princess Point Circle  
Tampa, Florida 33647

Please contact me with any questions at 813-951-2631.

Sincerely,



John L. Stiefel II, President

THIS PORTION MUST BE ATTACHED TO REMITTANCE FOR PROPER HANDLING

487528 JAN242007

Please include your AIRS ID# on your check or money order. This number is located on the mailing label.

**TOTAL AMOUNT DUE: \$50.00**

Do **NOT** Remove Label

AIRS ID# 1010497 ✓  
 MR JOHN STIEFEL II  
 STIEFEL ALUMINUM  
 18105 PRINCESS POINT CIRCLE  
 TAMPA FL 33647

FLAIR ACCT. CODE 372020350013755010000  
 BENEFITTING OBJECT CODE 002000  
 BENEFITTING CATEGORY 000200

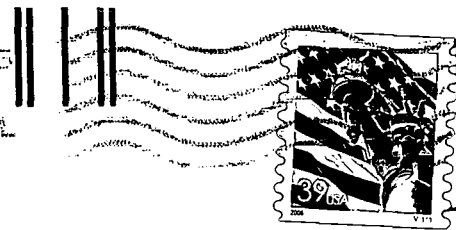
JAN 20 2007  
 Bureau of Air Mail  
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FOR GOVERNMENT USE ONLY  
 ORG.: 37550101000 EO: A1  
 FUND: 20-2-035001  
 OBJECT: 002273

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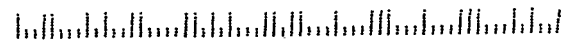
TAMPA FL 336

22 JAN 07 PM 5 L



TITLE V - General Permit  
 Receipts  
 Post Office Box 3070  
 Tallahassee, FL 32315-3070

32315-3070 BOSS



(CONTINUED) -----

**THIS PORTION MUST BE ATTACHED TO REMITTANCE FOR PROPER HANDLING**

443406 DEC16 2004

Please include your AIRS ID# on your check or money order. This number is located on the mailing label.

**TOTAL AMOUNT DUE: \$50.00**

Do **NOT** Remove Label

AIRS ID# 1050373 40  
STEIFEL ALUMINUM, INC  
4336 Knight-Station Road  
LAKELAND, FL 33812

*Printed on recycled paper.*

Bureau of Air Monitoring  
& Mobile Sources

DEC 16 2004

RECEIVED

FOR GOVERNMENT USE ONLY  
ORG: 37550101000 EO: A1  
FUND: 2000085001  
OBJECT: 003273