



# South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178  
(909) 396-2000 • [www.aqmd.gov](http://www.aqmd.gov)

December 13, 2012

Mr. Gerardo Rios  
Chief – Permits Office  
U. S. EPA, Region IX  
75 Hawthorne Street, Air 3  
San Francisco, CA 94105

Dear Mr. Rios:

SAPA Extruder, Inc., (I.D. 161300) has proposed to revise their Title V permit by the addition of an aluminum billet preheat furnace. SAPA Extruder, Inc. is an aluminum products facility located at 18111 E. Railroad Street, City of Industry, CA 91748. This proposed permit revision as requested under Application Number 543903 is considered as a “de minimis significant permit revision” to their Title V permit. Attached for your review is the permit evaluation and proposed permit revision. With your receipt of the proposed Title V permit revision today, we will note that the EPA 45-day review period will begin today, December 13, 2012.

If you have any questions or need additional information regarding the proposed permit revision, please call Monica Fernandez-Neild at 909.396.2202.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Brian L. Yeh', is written over a faint, larger signature.

Brian L. Yeh  
Senior Manager  
Mechanical, Chemical and Public Services

BLY:mfn

Attachments



## FACILITY PERMIT TO OPERATE SAPA EXTRUDER, INC

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 1: SECONDARY METALS, ALUMINUM</b>					
FURNACE, AGING, NO.1, NATURAL GAS, PROPANE, ALUMINUM, DISPATCH, 4 MMBTU/HR WITH A/N: 502268  BURNER, NATURAL GAS, NORTH AMERICAN, MODEL 4545-8A, 1 TOTAL; 4 MMBTU/HR	D8		NOX: PROCESS UNIT**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 12.8 LBS/1000 GAL LPG (1) [RULE 2012, 5-6-2005]; NOX: 130 LBS/MMSCF NATURAL GAS (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B59.1, B75.1
FURNACE, AGING, NO.2, NATURAL GAS, PROPANE, ALUMINUM, OLIVER, 3 MMBTU/HR WITH A/N: 502269  BURNER, NATURAL GAS, ECLIPSE, MODEL 300 MF-G MARK 4, 1 TOTAL; 3 MMBTU/HR	D9		NOX: PROCESS UNIT**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 12.8 LBS/1000 GAL LPG (1) [RULE 2012, 5-6-2005]; NOX: 130 LBS/MMSCF NATURAL GAS (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B59.1, B75.1

\* (1) (1A) (1B) Denotes RECLAIM emission factor  
 (3) Denotes RECLAIM concentration limit  
 (5) (5A) (5B) Denotes command and control emission limit  
 (7) Denotes NSR applicability limit  
 (9) See App B for Emission Limits  
 (2) (2A) (2B) Denotes RECLAIM emission rate  
 (4) Denotes BACT emission limit  
 (6) Denotes air toxic control rule limit  
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (10) See section J for NESHAP/MACT requirements

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE SAPA EXTRUDER, INC

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process I: SECONDARY METALS, ALUMINUM</b>					
FURNACE, AGING, NO.4, NATURAL GAS, PROPANE, ALUMINUM, GRANCO, 2.5 MMBTU/HR WITH A/N: 502273  BURNER, NATURAL GAS, NORTH AMERICAN, MODEL 4988-2500, 1 TOTAL; 2.5 MMBTU/HR	D14		NOX: PROCESS UNIT**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 12.8 LBS/1000 GAL LPG (1) [RULE 2012, 5-6-2005]; NOX: 130 LBS/MMSCF NATURAL GAS (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B59.1, B75.1
FURNACE, AGING, NO.3, NATURAL GAS, PROPANE, ALUMINUM, GERREF, 2.5 MMBTU/HR WITH A/N: 502275  BURNER, NATURAL GAS, MAXON, MODEL 425, 1 TOTAL; 2.5 MMBTU/HR	D15		NOX: PROCESS UNIT**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 12.8 LBS/1000 GAL LPG (1) [RULE 2012, 5-6-2005]; NOX: 130 LBS/MMSCF NATURAL GAS (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B59.1, B75.1

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>* (1) (1A) (1B) Denotes RECLAIM emission factor</li> <li>(3) Denotes RECLAIM concentration limit</li> <li>(5) (5A) (5B) Denotes command and control emission limit</li> <li>(7) Denotes NSR applicability limit</li> <li>(9) See App B for Emission Limits</li> </ul> | <ul style="list-style-type: none"> <li>(2) (2A) (2B) Denotes RECLAIM emission rate</li> <li>(4) Denotes BACT emission limit</li> <li>(6) Denotes air toxic control rule limit</li> <li>(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)</li> <li>(10) See section J for NESHAP/MACT requirements</li> </ul> |
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\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE SAPA EXTRUDER, INC

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 1: SECONDARY METALS, ALUMINUM</b>					
FURNACE, AGING, NO. 5, ELHAUS, MODEL NO. S3984, NATURAL GAS, ALUMINUM, WITH LOW NOX BURNER, 5.1 MMBTU/HR WITH A/N: 502263  BURNER, NATURAL GAS, MAXON, MODEL 0.8M PACKAGED CYCLOMAX, WITH LOW NOX BURNER, 6 TOTAL; 0.85 MMBTU/HR	D54		NOX: PROCESS UNIT**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 30 PPMV NATURAL GAS (4) [RULE 2005, 5-6-2005]; NOX: 30 PPMV NATURAL GAS (3) [RULE 2012, 5-6-2005]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B59.1, C1.5, D28.1, K67.4
FURNACE, BILLET PREHEAT, NATURAL GAS, ALUMINUM, GRANCO-CLARK, 5.08 MMBTU/HR WITH A/N: 506428  BURNER, NATURAL GAS, GRANCO-CLARK, 82 TOTAL; 0.06 MMBTU/HR  BURNER, NATURAL GAS, GRANCO-CLARK, 4 TOTAL; 0.04 MMBTU/HR	D66		NOX: PROCESS UNIT**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 50 PPMV NATURAL GAS (4) [RULE 2005, 5-6-2005]; NOX: 50 PPMV NATURAL GAS (3) [RULE 2012, 5-6-2005]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B59.1, D28.1

\* (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit  
 (5) (5A) (5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits (10) See section J for NESHAP/MACT requirements

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE SAPA EXTRUDER, INC

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1: SECONDARY METALS, ALUMINUM</b>					
FURNACE, BILLET PREHEAT, NATURAL GAS, ALUMINUM, GRANCO-CLARK, 7.28 MMBTU/HR WITH  A/N:  BURNER, NATURAL GAS, GRANCO-CLARK, 116 TOTAL; 0.06 MMBTU/HR  BURNER, NATURAL GAS, GRANCO-CLARK, 8 TOTAL; 0.04 MMBTU/HR	D72		NOX: PROCESS UNIT**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 50 PPMV NATURAL GAS (4) [RULE 2005, 6-3-2011]; NOX: 50 PPMV NATURAL GAS (3) [RULE 2012, 5-6-2005]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B59.1, D28.4, D29.2, I297.1
<b>Process 2: FABRICATED METALS, CONVERSION COATING</b>					
SCRUBBER, PACKED BED, WIDTH: 4 FT ; HEIGHT: 5 FT 2 IN; LENGTH: 7 FT  A/N: 502274	C16				C6.1, D12.3, D12.5, K67.1
<b>Process 5: R-219 EXEMPT EQUIPMENT SUBJECT TO SOURCE-SPECIFIC RULES</b>					
RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, PORTABLE, ARCHITECTURAL COATINGS	E44			ROG: (9) [RULE 1113, 11-8-1996; RULE 1113, 7-13-2007; RULE 1171, 11-7-2003; RULE 1171, 5-1-2009]	K67.2
RULE 219 EXEMPT EQUIPMENT, AIR CONDITIONING UNITS	E65				H23.1
<b>Process 6: ABRASIVE BLASTING</b>					

- \* (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See section J for NESHAP/MACT requirements

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE SAPA EXTRUDER, INC

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 6: ABRASIVE BLASTING</b>					
ABRASIVE BLASTING, CABINET, GUYSON, MODEL GWB401T, ONE 5-HP WHEEL, METALBEADS, WITH CYCLONE, FABRIC FILTER, 1 TOTAL; WIDTH: 6 FT 8 IN; HEIGHT: 11 FT 10 IN; LENGTH: 6 FT 3 IN WITH A/N: 502279	D45			PM: (9) [RULE 1140, 2-1-1980; RULE 1140, 8-2-1985; RULE 404, 2-7-1986; RULE 405, 2-7-1986]	C6.2, D322.1, E448.1, K67.3
BUCKET ELEVATOR, 1 TOTAL	D46				

\* (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit  
 (5) (5A) (5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits (10) See section J for NESHAP/MACT requirements

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE SAPA EXTRUDER, INC

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

#### DEVICE CONDITIONS

##### B. Material/Fuel Type Limits

B59.1 The operator shall not use the following material(s) in this device :

Metal contaminated with rubber, plastic, paper, rags, oil, grease

Smoke producing material

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 401, 3-2-1984; RULE 401, 11-9-2001]

[Devices subject to this condition : D6, D7, D8, D9, D14, D15, D54, D66, D72]

B75.1 The operator shall not use propane in this equipment except under the following circumstance(s):

Natural gas curtailment

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D6, D7, D8, D9, D14, D15]

##### C. Throughput or Operating Parameter Limits

C1.5 The operator shall limit the natural gas fuel usage to no more than 2.304 MM cubic feet per month.

## FACILITY PERMIT TO OPERATE SAPA EXTRUDER, INC

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

To comply with this condition, the operator shall install and maintain a(n) non-resettable totalizing fuel meter to accurately indicate the fuel usage of the furnace.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D54]

- C6.1 The operator shall use this equipment in such a manner that the pH being monitored, as indicated below, does not exceed 9.5 of the pH scale.

To comply with this condition, the operator shall monitor the pH as specified in Condition D12.3.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : C16]

- C6.2 The operator shall use this equipment in such a manner that the differential pressure being monitored, as indicated below, does not exceed 2.5 inches water column.

To comply with this condition, the operator shall install and maintain a(n) differential pressure gauge to accurately indicate the differential pressure across the filter.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

The operator shall record the parameter being monitored once every 7 days.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D45]

## FACILITY PERMIT TO OPERATE SAPA EXTRUDER, INC

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

#### **D. Monitoring/Testing Requirements**

D12.3 The operator shall install and maintain a(n) pH meter to accurately indicate the pH in the scrubber solution.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]**

[Devices subject to this condition : C16]

D12.5 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the scrubbing solution circulated through the scrubber.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]**

[Devices subject to this condition : C16]

D28.1 The operator shall conduct source test(s) in accordance with the following specifications:

The test shall be conducted to determine the NOX emissions at the outlet.

The test shall be conducted every five-year period, with the first five year-period ending June 30, 2010.

The test shall be conducted within 12 months of the approval of the concentration limit.

**[RULE 2012, 5-6-2005]**

[Devices subject to this condition : D54, D66]

## FACILITY PERMIT TO OPERATE SAPA EXTRUDER, INC

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

D28.4 The operator shall conduct source test(s) in accordance with the following specifications:

The test shall be conducted to determine the NOX emissions at the outlet.

The test shall be conducted every five-year period, with the first five year-period ending June 30, 2015.

The test shall be conducted within 12 months of the approval of the concentration limit.

**[RULE 2012, 5-6-2005]**

[Devices subject to this condition : D72]

D29.2 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NOX emissions	Approved District method	District-approved averaging time	Outlet
CO emissions	Approved District method	District-approved averaging time	Outlet

## FACILITY PERMIT TO OPERATE SAPA EXTRUDER, INC

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

In addition to the source test requirements of Section E of this facility permit, the facility permit holder shall submit a protocol to the AQMD engineer no later than 45 days prior to the proposed test date, and notify the District of the date and time of the test at least 10 days prior to the test.

The test(s) shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up.

The test shall be conducted to demonstrate compliance with the BACT limit of 50 ppmv at 3 percent oxygen for NOx..

Notwithstanding the requirements of Section E conditions, the source test results shall be submitted to the District no later than 45 days after the source test was conducted.

Mail completed source test report to SCAQMD, P. O. Box 4941, Diamond Bar, CA 91765.

**[RULE 2005, 6-3-2011]**

[Devices subject to this condition : D72]

D322.1 The operator shall perform annual inspection of the equipment and filter media for leaks, broken or torn filter media, and improperly installed filter media.

**[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

[Devices subject to this condition : D45]

#### **E. Equipment Operation/Construction Requirements**

E448.1 The operator shall comply with the following requirements:

## FACILITY PERMIT TO OPERATE SAPA EXTRUDER, INC

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

Dust collected in the baghouse shall be discharged only into enclosed containers or returned to process and shall not be handled in a manner that may result in the re-release of collected materials to the atmosphere.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 401, 3-2-1984; RULE 401, 11-9-2001]

[Devices subject to this condition : D45]

#### **H. Applicable Rules**

H23.1 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Refrigerants	District Rule	1415

[RULE 1415, 10-14-1994]

[Devices subject to this condition : E65]

#### **I. Administrative**

I297.1 This equipment shall not be operated unless the facility holds 3861 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. RTCs held to satisfy this condition may be transferred only after one year from the initial start of operation. If the hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

## FACILITY PERMIT TO OPERATE SAPA EXTRUDER, INC

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

**[RULE 2012, 5-6-2005]**

[Devices subject to this condition : D72]

#### **K. Record Keeping/Reporting**

K67.1 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

On a daily basis: The pH of the scrubbing solution

On a daily basis: The flow rate of the scrubbing solution

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]**

[Devices subject to this condition : C16]

K67.2 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

For architectural applications where no thinners, reducers, or other VOC containing materials are added, maintain semi-annual records for all coating consisting of (a) coating type, (b) VOC content as supplied in grams per liter (g/l) of materials for low-solids coatings, (c) VOC content as supplied in g/l of coating, less water and exempt solvent, for other coatings.

For architectural applications where thinners, reducers, or other VOC containing materials are added, maintain daily records for each coating consisting of (a) coating type, (b) VOC content as applied in grams per liter (g/l) of materials used for low-solids coatings, (c) VOC content as applied in g/l of coating, less water and exempt solvent, for other coatings.

**[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

## FACILITY PERMIT TO OPERATE SAPA EXTRUDER, INC

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

[Devices subject to this condition : E44]

K67.3 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

the name of the person performing the inspection and/or maintenance of the filter media

the date, time and results of the inspection

the date, time and description of any maintenance or repairs resulting from the inspection

**[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

[Devices subject to this condition : D45]

K67.4 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Monthly natural gas usage of devices D1 and D3

**[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]**

[Devices subject to this condition : D54]

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>  <b>ENGINEERING AND COMPLIANCE DIVISION</b>  <b>APPLICATION PROCESSING AND CALCULATIONS</b>	PAGE 1	PAGES 5
	APPL. NO. PO 543902	DATE 12/13/2012
	PROCESSOR MFN	REVIEWER

PERMIT TO CONSTRUCT/OPERATE ANALYSIS

**FACILITY MAILING ADDRESS**

SAPA Extruder, Inc.  
18111 E. Railroad Street  
City of Industry, CA 91748

(ID: 161300      NOx RECLAIM Cycle 2      -      TITLE V)

**EQUIPMENT LOCATION**

SAME AS ABOVE

**EQUIPMENT DESCRIPTION**

APPLICATION NO.                      543902                      -                      NEW CONSTRUCTION  
PROCESS 1: SECONDARY METALS, ALUMINUM  
SYSTEM 2: ANNEALING

(D72) FURNACE, ALUMINUM BILLET PREHEAT, GRANCO-CLARK, CUSTOM BUILT,  
7.28 MMBTU/HR TOTAL, NATURAL GAS FIRED, WITH 116 BURNERS AT 60,000  
BTU/HR EACH AND 8 BURNERS AT 40,000 BTU/HR EACH.

APPLICATION NO.                      543903                      -                      TITLE V PERMIT MODIFICATION

**HISTORY**

Application No. 543902 was filed on October 16, 2012, for a Class I equipment replacement.  
Application No. 543903 was filed on October 16, 2012, for a Title V Permit Revision.

The following compliance activity was found in District records (CLASS computer database) during the past 2 years.

**Complaints:** There were no complaints credited to this facility during the past 2 years.

**Notices to Comply:**

E03260, 11/24/10 to Report QCERs accurately. Report APEP accurately. Determine the fuel usages accurately. Apply accurate emission factors. Accurately report Rule 219 emissions. Inspector found applicant in compliance by 1/14/11.

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>  <b>ENGINEERING AND COMPLIANCE DIVISION</b>  <b>APPLICATION PROCESSING AND CALCULATIONS</b>	PAGE 2	PAGES 5
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	PROCESSOR MFN	REVIEWER

E03280, 3/16/11, to accurately monitor the pH & flow rate of the scrubber and do not violate the permit condition. Record the quantity of fuel burned correctly for the Process Unit D54. Accurately determine and report Rule 219 emissions.  
Inspector found applicant to be in compliance by 5/11/11.

E03297, 3/13/12 to not use a solvent cleaning solvent unless it complies with Rule 1171 requirements. Do not store or apply coatings that exceed Rule 1113 VOC limits.  
Inspector found applicant in compliance by 3/30/12.

**Notices of Violation:** There were no Notices of Violation issued within the last 2 years.

**PROCESS DESCRIPTION**

SAPA Extruder, Inc., primarily heats aluminum billet in a billet press until it can be extruded through dies to form the desired shape. The finale product is then aged in an oven to create a uniform and consistent metal composition across the metal.

**EVALUATION**

Operating Schedule – 24 hrs/day, 5 days/wk, 50 weeks/yr (Average)  
24 hrs/day, 7 days/wk, 52 weeks/year (Maximum)

Heat rating – 7.28 MMBTU/hr

Load factor – Average Load = 100%

Maximum Load = 100%

Operating Temperature – 1000°F (Maximum)

NOx emissions – 50 ppmv @ 3% O<sub>2</sub> (To be verified with a conditioned source test)

Consultant is requesting 50 ppmv be used for emission calculations and reporting purposes as allowed in R2012.

- HC, SO<sub>x</sub>, CO and PM emissions from the 2011 AER Program

- PM<sub>10</sub> = 1.0 PM, based on 1/30/92, Fred Del Rosario memo.

See attached sheet for criteria pollutant emission calculations.

**RULES COMPLIANCE**

**RULE 212:** Public Notification

**Paragraph 212 (c)(1)** Requires a public notice for all new or modified permit units that may emit air contaminants located within 1,000 feet from the outer boundary of a school. According to the website geodistance.com the closest school, Jellick Elementary is beyond a 3000 feet from SAPA Extruder’s property line. A 30-Day Public Notice is not required under this paragraph.

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>  <b>ENGINEERING AND COMPLIANCE DIVISION</b>  <b>APPLICATION PROCESSING AND CALCULATIONS</b>	PAGE 3	PAGES 5
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**Paragraph 212(c)(2)** The equipment will not result in on-site emission increase exceeding the daily maximums as specified in the table in Rule 212(g).

Therefore, a 30-day public notice period will not be required under this paragraph.

**Paragraph 212(c)(3)** Public notice will not be required under this paragraph. See Rule 1401 evaluation section.

**RULE 401:** Compliance is expected. Visible emissions are not expected from the proper operation of this equipment. There has been no visible emission citations associated with the operation of similar furnaces at this facility.

**RULE 402:** Compliance is expected. Nuisance is not expected with the proper operation and maintenance of this furnace. There is no record of any nuisance complaints or citations associated with forging furnaces at this facility.

**RULE 404:** Compliance is expected. Natural gas combustion is the only source of PM contaminants, there is no melting.

**RULE 431.1:** Compliance is expected. The furnace will be fired on natural gas with sulfur compounds (as H<sub>2</sub>S) less than 16 ppm.

**REG XIII/XX:** BACT for a preheat furnace is 50 ppmv @ 3% O<sub>2</sub> for NO<sub>x</sub> and natural gas combustion for SO<sub>x</sub>. As requested by the applicant, 50 ppmv shall be conditioned to this furnace as both its NO<sub>x</sub> BACT limit and for RECLAIM reporting purposes. NO<sub>x</sub> compliance shall be verified with required source test of furnace once constructed. See device condition D28.4

**Modeling** is met. Emission rates for the furnaces are below the screening level of Table A-1 of Rule 1303.

Heat Input (mmBtu/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	PM (lb/hr)
>2 <5	0.47	25.9	2.8
D72	0.44	0.24	0.05

**Offsets** are not required. SAPA Extruder is a NO<sub>x</sub> RECLAIM facility, NO<sub>x</sub> emissions will be offset by their available NO<sub>x</sub> RTCs, see Condition I297.1. All non-RECLAIM pollutants are below Table A of Rule 1304 (d).

**REG XIV:** Preheat Furnace is in compliance of Tier 2 analysis. See attached calculations sheets.

**REG XXX:** This is a De Minimis Significant Permit Revision to the Title V permit. EPA 45-day review period is required.

### **RECOMMENDATION**

Approve Permit to Construct/Operate for A/N 543902 as described in this report and the Facility Permit once it is off of 45-Day EPA notice.

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>  <b>ENGINEERING AND COMPLIANCE DIVISION</b>  <b>APPLICATION PROCESSING AND CALCULATIONS</b>	PAGE 4	PAGES 5
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	PROCESSOR MFN	REVIEWER

**Conditions:**

**B59.1** THE OPERATOR SHALL NOT USE THE FOLLOWING MATERIAL(S) IN THIS DEVICE:

Smoke producing material

Metal contaminated with rubber, plastic, paper, rags, oil, grease

**D28.4** THE OPERATOR SHALL CONDUCT SOURCE TEST(S) IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:

The test shall be conducted to determine the NOX emissions at the outlet.

The test shall be conducted every five-year period, with the first five year-period ending June 30, 2015.

The test shall be conducted within 12 months of the approval of the concentration limit.

**D29.2** THE OPERATOR SHALL CONDUCT SOURCE TESTS FOR THE POLLUTANTS IDENTIFIED BELOW:

POLLUTANT(S) TO BE TESTED	REQUIRED TEST METHOD(S)	AVERAGING TIME	TEST LOCATION
NOX EMISSIONS	APPROVED DISTRICT METHOD	15 MINUTES	OUTLET
CO EMISSIONS	APPROVED DISTRICT METHOD	15 MINUTES	OUTLET

In addition to the source test requirements of Section E of this facility permit, the facility permit holder shall submit the protocol to the AQMD engineer no later than 45 days prior to the proposed test date, and notify the District of the date and time of the test at least 10 days prior to the test.

The test(s) shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up.

The test shall be conducted to demonstrate compliance with the BACT limit of 50 ppmv at 3 percent oxygen for NOx.

Notwithstanding the requirements of Section E conditions, the source test results shall be submitted to the District no later than 30 days after the source test was conducted.

Mail completed source test report to SCAQMD, P.O. Box 4941, Diamond Bar, CA 91765.

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**I297.1 THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS THE FACILITY HOLDS 3861 POUNDS OF NOX RTCS IN ITS ALLOCATION ACCOUNT TO OFFSET THE ANNUAL EMISSIONS INCREASE FOR THE FIRST YEAR OF OPERATION. RTCS HELD TO SATISFY THIS CONDITION MAY BE TRANSFERRED ONLY AFTER ONE YEAR FROM THE INITIAL START OF OPERATION. IF THE HOLD AMOUNT IS PARTIALLY SATISFIED BY HOLDING RTCS THAT EXPIRE MIDWAY THROUGH THE HOLD PERIOD, THOSE RTCS MAY BE TRANSFERRED UPON THEIR RESPECTIVE EXPIRATION DATES. THIS HOLD AMOUNT IS IN ADDITION TO ANY OTHER AMOUNT OF RTCS REQUIRED TO BE HELD UNDER OTHER CONDITION(S) STATED IN THIS PERMIT.**

**SAPA Extruder**  
**Aluminum Billet Preheat Furnace**

**A/N 543902**

EMISSIONS FOR FIRING ON NATURAL GAS  
(OVENS, FURNACES, HEATERS, ETC.)

Emission factors are from form B-1  
Except NOx which is calculated from the ppm of NOx

Maximum Burner Rating in BTU/hr =	7,280,000 BTU/hr
Average Operating Schedule =	16 hr/day
Maximum Operating Schedule =	24 hr/day
Expected emission of NOx=	50 ppm
Average Loading=	100.0%
Maximum Loading =	100.0%
Maximum operating days per month =	30 days

**AVERAGE EMISSIONS**

RHC	=	0.0485 lb/hr	0.7765 lb/day
NOx	=	0.4404 lb/hr	7.0470 lb/day
SO2	=	0.0042 lb/hr	0.0666 lb/day
CO	=	0.2427 lb/hr	3.8827 lb/day
PART	=	0.0520 lb/hr	0.8320 lb/day

**MAXIMUM EMISSIONS**

RHC	=	0.0485 lb/hr	1.1648 lb/day
NOx	=	0.4404 lb/hr	10.5706 lb/day
SO2	=	0.0042 lb/hr	0.0998 lb/day
CO	=	0.2427 lb/hr	5.8240 lb/day
PART	=	0.0520 lb/hr	1.2480 lb/day

**Thirty day average and yearly emissions**

RHC	=	1.16 lb/dy	419 lb/yr
NOx	=	10.57 lb/dy	3805 lb/yr
SO2	=	0.10 lb/dy	36 lb/yr
CO	=	5.82 lb/dy	2097 lb/yr
PART	=	1.25 lb/dy	449 lb/yr

## BOILER DATA

Max burner rating	7,280,000	BTU/hr
Fuel HHV	1050	btu/ft3
Fuel rate	6,933	ft3/hr
MM cf fuel rate	0.006933	mmcf/hr
VOC control (Rule 1401)		percent eff

Compound	EF (lb/mmcf)	R1 (lb/hr)	R2 (lb/hr)	NSR Data Entry (E-06 lb/hr)	
				R1	R2
Acetaldehyde	4.30E-03	2.9813E-05	2.9813E-05	29.8133	29.8133
Acrolein	2.70E-03	0.00001872	0.00001872	18.7200	18.7200
Benzene (including benzene from gasoline)	8.00E-03	5.5467E-05	5.5467E-05	55.4667	55.4667
Ethyl benzene	9.50E-03	6.5867E-05	6.5867E-05	65.8667	65.8667
Formaldehyde	1.70E-02	0.00011787	0.00011787	117.8667	117.8667
Hexane (n-)	6.30E-03	4.36800E-05	4.36800E-05	43.6800	43.6800
Naphthalene	3.00E-04	0.00000208	0.00000208	2.0800	2.0800
PolyCyclic Aromatic	1.00E-04	6.9333E-07	6.9333E-07	0.6933	0.6933
Propylene	7.31E-01	0.00506827	0.00506827	5068.2667	5068.2667
Toluene (methyl benzene)	3.66E-02	0.00025376	0.00025376	253.7600	253.7600
Xylenes (isomers and mixtures)	2.72E-02	1.88587E-04	0.00018859	188.5867	188.5867



# TIER 1 SCREENING RISK ASSESSMENT REPORT

Receptor Distance (actual)	25
Receptor Distance (for X/Q LOOKUP)	25

Tier 1 Results	
<b>Cancer/Chronic ASI</b>	<b>Acute ASI</b>
6.87E+00	1.95E-02
<b>FAILED</b>	<b>PASSED</b>

## APPLICATION SCREENING INDEX CALCULATION

Compound	Average Annual Emission Rate	Max Hourly Emission Rate (lbs/hr)	Cancer / Chronic Pollutant Screening Level (lbs/yr)	Acute Pollutant Screening Level (lbs/hr)	Cancer / Chronic Pollutant Screening Index	Acute Pollutant Screening Index (PSI)
Acetaldehyde	2.60E-01	2.98E-05	1.14E+01	2.35E-01	2.28E-02	1.27E-04
Acrolein	1.64E-01	1.87E-05	1.16E+01	1.25E-03	1.41E-02	1.50E-02
Benzene (including benzene from gasoline)	4.85E-01	5.55E-05	1.14E+00	7.39E-01	4.24E-01	7.51E-05
Ethyl benzene	5.75E-01	6.59E-05	1.31E+01		4.39E-02	
Formaldehyde	1.03E+00	1.18E-04	5.44E+00	2.75E-02	1.89E-01	4.29E-03
Hexane (n-)	3.82E-01	4.37E-05	2.31E+05		1.65E-06	
Naphthalene	1.82E-02	2.08E-06	9.51E-01		1.91E-02	
PolyCyclic Aromatic Hydrocarbon (PAHs)	6.06E-03	6.93E-07	9.84E-04		6.16E+00	
Propylene	4.43E+01	5.07E-03	9.92E+04		4.46E-04	
Toluene (methyl benzene)	2.22E+00	2.54E-04	9.92E+03	1.85E+01	2.23E-04	1.37E-05
Xylenes (isomers and mixtures)	1.65E+00	1.89E-04	2.31E+04	1.10E+01	7.12E-05	1.71E-05
<b>TOTAL (APPLICATION SCREENING INDEX)</b>					<b>6.87E+00</b>	<b>1.95E-02</b>

**TIER 2 SCREENING RISK ASSESSMENT REPORT**

A/N:   
 Fac:

543902  
161300

Application deemed complete date: 10/16/12

**2. Tier 2 Data**

MET Factor	0.71
4 hr	0.78
6 or 7 hrs	0.74

Dispersion Factors tables

3	For Chronic X/Q
6	For Acute X/Q

Dilution Factors (ug/m<sup>3</sup>)(tons/yr)

Receptor	X/Q	X/Qmax
Residential	0.305637231	3.601448199
Commercial	4.188191278	52.31521502

Adjustment and Intake Factors

	AFam	DBR	EVF
Residential	1	302	0.96
Worker	1	149	0.38





A/N: 543902

Application deemed complete date: 10/16/12

**TIER 2 RESULTS**

**5a. MICR**

$MICR = CP \text{ (mg/(kg-day))}^{-1} * Q \text{ (ton/yr)} * (X/Q) * AFann * MET * DBR * EVF * 1E-6 * MP$

Compound	Residential	Commercial
Acetaldehyde	8.19E-11	2.19E-10
Acrolein		
Benzene (including benzene from gasoline)	1.52E-09	4.08E-09
Ethyl benzene	1.57E-10	4.21E-10
Formaldehyde	6.80E-10	1.82E-09
Hexane (n-)		
Naphthalene	6.86E-11	1.84E-10
PolyCyclic Aromatic Hydrocarbon (PAHs)	2.21E-08	2.91E-08
Propylene		
Toluene (methyl benzene)		
Xylenes (isomers and mixtures)		
<b>Total</b>	<b>2.46E-08</b>	<b>3.58E-08</b>
	<b>PASS</b>	<b>PASS</b>

No Cancer Burden, MICR < 1.0E-6

<b>5b. Cancer Burden</b>	<b>NO</b>
X/Q for one-in-a-million:	
Distance (meter)	
Area (km2):	
Population:	-
<b>Cancer Burden:</b>	

**6. Hazard Index**

HIA = [Q(lb/hr) \* (X/Q)max] \* AF / Acute REL

HIC = [Q(ton/yr) \* (X/Q) \* MET \* MP] / Chronic REL

Target Organs	Acute	Chronic	Acute Pass/Fail	Chronic Pass/Fail
Alimentary system (liver) - AL		4.28E-07	Pass	Pass
Bones and teeth - BN			Pass	Pass
Cardiovascular system - CV			Pass	Pass
Developmental - DEV	2.59E-06	2.34E-05	Pass	Pass
Endocrine system - END		4.28E-07	Pass	Pass
Eye	5.08E-04		Pass	Pass
Hematopoietic system - HEM	2.23E-06	1.20E-05	Pass	Pass
Immune system - IMM	2.23E-06		Pass	Pass
Kidney - KID		4.28E-07	Pass	Pass
Nervous system - NS	3.59E-07	2.66E-05	Pass	Pass
Reproductive system - REP	2.59E-06		Pass	Pass
Respiratory system - RES	3.96E-04	9.07E-04	Pass	Pass
Skin			Pass	Pass

A/N: 543902

Application deemed complete date:

10/16/12

6a. Hazard Index Acute

$HIA = [Q(lb/hr) * (X/Q)_{max}] * AF / Acute REL$

Compound	HIA - Residential									
	AL	CV	DEV	EYE	HEM	IMM	NS	REP	RESP	SKIN
Acetaldehyde				2.28E-07					2.28E-07	
Acrolein				2.70E-05					2.70E-05	
Benzene (including benzene from gasoline)			1.54E-07		1.54E-07	1.54E-07		1.54E-07		
Ethyl benzene										
Formaldehyde				7.72E-06						
Hexane (n-)										
Naphthalene										
PolyCyclic Aromatic Hydrocarbon (PAHs)										
Propylene										
Toluene (methyl benzene)			2.47E-08	2.47E-08			2.47E-08	2.47E-08	2.47E-08	
Xylenes (isomers and mixtures)				3.09E-08					3.09E-08	
<b>Total</b>			1.78E-07	3.50E-05	1.54E-07	1.54E-07	2.47E-08	1.78E-07	2.73E-05	

Compound	HIA - Commercial									
	AL	CV	DEV	EYE	HEM	IMM	NS	REP	RESP	SKIN
Acetaldehyde				3.32E-06					3.32E-06	
Acrolein				3.92E-04					3.92E-04	
Benzene (including benzene from gasoline)			2.23E-06		2.23E-06	2.23E-06		2.23E-06		
Ethyl benzene										
Formaldehyde				1.12E-04						
Hexane (n-)										
Naphthalene										
PolyCyclic Aromatic Hydrocarbon (PAHs)										
Propylene										
Toluene (methyl benzene)			3.59E-07	3.59E-07			3.59E-07	3.59E-07	3.59E-07	
Xylenes (isomers and mixtures)				4.48E-07					4.48E-07	
<b>Total</b>			2.59E-06	5.08E-04	2.23E-06	2.23E-06	3.59E-07	2.59E-06	3.96E-04	

6b. Hazard Index Chronic

$$HIC = [Q(\text{ton/yr}) * (X/Q) * MET * MP] / \text{Chronic REL}$$

Compound	HIC - Residential												
	AL	BN	CV	DEV	END	EYE	HEM	IMM	KID	NS	REP	RESP	SKIN
Acetaldehyde												2.02E-07	
Acrolein												5.07E-05	
Benzene (including benzene from gasoline)				8.76E-07			8.76E-07			8.76E-07			
Ethyl benzene	3.12E-08			3.12E-08	3.12E-08				3.12E-08				
Formaldehyde												1.24E-05	
Hexane (n-)										5.91E-09			
Naphthalene												2.19E-07	
PolyCyclic Aromatic Hydrocarbon (PAHs)												1.60E-06	
Propylene												8.02E-07	
Toluene (methyl benzene)				8.02E-07						8.02E-07		8.02E-07	
Xylenes (isomers and mixtures)										2.55E-07		2.55E-07	
<b>Total</b>	3.12E-08			1.71E-06	3.12E-08		8.76E-07		3.12E-08	1.94E-06		6.62E-05	

6b. Hazard Index Chronic (cont.)

A/N: 543902

Application deemed complete date:

10/16/12

Compound	HIC - Commercial												
	AL	BN	CV	DEV	END	EYE	HEM	IMM	KID	NS	REP	RESP	SKIN
Acetaldehyde												2.77E-06	
Acrolein												6.95E-04	
Benzene (including benzene from gasoline)				1.20E-05			1.20E-05			1.20E-05			
Ethyl benzene	4.28E-07			4.28E-07	4.28E-07				4.28E-07				
Formaldehyde												1.70E-04	
Hexane (n-)										8.10E-08			
Naphthalene												3.00E-06	
PolyCyclic Aromatic Hydrocarbon (PAHs)													
Propylene												2.19E-05	
Toluene (methyl benzene)				1.10E-05						1.10E-05		1.10E-05	
Xylenes (isomers and mixtures)										3.50E-06		3.50E-06	
<b>Total</b>	4.28E-07			2.34E-05	4.28E-07		1.20E-05		4.28E-07	2.66E-05		9.07E-04	