



# South Coast Air Quality Management District

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

November 30, 2011

Mr. Gerardo C. Rios  
Chief, Permits Office  
U. S. EPA, Region IX  
75 Hawthorne Street  
San Francisco, CA 94105-3901

Dear Mr. Rios:

Subject: Kaiser Aluminum Fabricated Products, LLC (I.D. 016338) Title V Permit  
Revision

Kaiser Aluminum Fabricated Products, LLC (ID# 016338) has proposed to revise their Title V permit by modifying the two existing melting furnaces (D8, A/N 528823 and D9, A/N 528825). This is a secondary aluminum manufacturing facility located at 6250 East Bandini Blvd., Los Angeles, CA 90040. This proposed permit revision is considered as a "minor permit revision" to the Title V permit issued on August 25, 2011. Enclosed for your review are the permit evaluation and the proposed permit. With your receipt of the proposed Title V permit revision today, we will note that the EPA 45-day review period begins on November 30, 2011.

If you have any questions or need additional information regarding the proposed permit revision, please call Manuel Quizon at (909) 396-2639.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian L. Yeh", is written over a large, light-colored scribble or watermark.

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

BLY:mvq  
Attachments

## FACILITY PERMIT TO OPERATE KAISER ALUMINUM FABRICATED PRODUCTS, LLC

### 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
FURNACE, NATURAL GAS, ALUMINUM, 4 MMBTU/HR A/N: 193099	D1		NOX: PROCESS UNIT**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 130 LBS/MMSCF NATURAL GAS (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 405, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B59.1
FURNACE, NATURAL GAS, ALUMINUM, 2.5 MMBTU/HR A/N: 193096	D2		NOX: PROCESS UNIT**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 130 LBS/MMSCF NATURAL GAS (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 405, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B59.1
FURNACE, NATURAL GAS, ALUMINUM, 4 MMBTU/HR A/N: 193100	D3		NOX: PROCESS UNIT**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 130 LBS/MMSCF NATURAL GAS (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 405, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B59.1
FURNACE, NATURAL GAS, ALUMINUM, 4 MMBTU/HR A/N: 193101	D4		NOX: PROCESS UNIT**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 130 LBS/MMSCF NATURAL GAS (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 405, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B59.1

- \* (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 KAISER ALUMINUM FABRICATED PRODUCTS, LLC

### 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
FURNACE, HEAT TREATING, OMAV, NATURAL GAS, ALUMINUM, WITH LOW NOX BURNER, 3.76 MMBTU/HR WITH A/N: 476672					
FURNACE, HEAT TREATING, OMAV, NATURAL GAS, ALUMINUM, WITH LOW NOX BURNER, 3.76 MMBTU/HR WITH A/N: 476672  BURNER, NATURAL GAS, WEISHAAPT GMBH, MODEL WG40, WITH LOW NOX BURNER, 2 TOTAL; 1.88 MMBTU/HR	D47		NOX: PROCESS UNIT**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 50 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]; NOX: 50 PPMV NATURAL GAS (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 405, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B59.1, C1.10, D28.1, D323.1
FURNACE, NATURAL GAS, ALUMINUM, WITH LOW NOX BURNER, 5.4 MMBTU/HR WITH A/N: 324256  BURNER, NATURAL GAS, GRANCO CLARK, MODEL HOT JET, WITH LOW NOX BURNER, FLUE GAS RECIRCULATION, 5.4 MMBTU/HR	D5		NOX: PROCESS UNIT**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 130 LBS/MMSCF NATURAL GAS (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 405, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B59.1, C1.3, D12.1

- \* (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 KAISER ALUMINUM FABRICATED PRODUCTS, LLC

### 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
FURNACE, HOLDING, MELTING, REVERBATORY, NATURAL GAS, ALUMINUM, WITH LOW NOX BURNER, 10 MMBTU/HR WITH A/N: 433864  INJECTOR, SF6  BURNER, NATURAL GAS, WITH LOW NOX BURNER, 10 MMBTU/HR	D6		NOX: LARGE SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; HAP: (10) [40CFR 63 Subpart RRR, 4-20-2006]; NOX: 75 PPMV NATURAL GAS (3) [RULE 2012, 5-6-2005]; PM: (9) [RULE 405, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B27.2, B59.1, C1.2, C1.6, D12.1, D323.1, E71.2, E147.1
FURNACE, NATURAL GAS, ALUMINUM, WITH LOW NOX BURNER, 5.4 MMBTU/HR WITH A/N: 324252  BURNER, NATURAL GAS, GRANCO CLARK, MODEL HOT JET, WITH LOW NOX BURNER, FLUE GAS RECIRCULATION, 5.4 MMBTU/HR	D7		NOX: PROCESS UNIT**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 130 LBS/MMSCF NATURAL GAS (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 405, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B59.1, C1.3, D12.1

- \* (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 KAISER ALUMINUM FABRICATED PRODUCTS, LLC

### 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
FURNACE, HOLDING, MELTING, REVERBATORY, NATURAL GAS, ALUMINUM, REVERBATORY TYPE, WITH LOW NOX BURNER, 32 MMBTU/HR WITH A/N:  BURNER, NATURAL GAS, BLOOM ENGINEERING, WITH LOW NOX BURNER, 24 MMBTU/HR  BURNER, NATURAL GAS, NORTH AMERICAN MFG. CO., MODEL 4575-9, WITH LOW NOX BURNER, 8 MMBTU/HR	D8		NOX: LARGE SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; HAP: (10) [40CFR 63 Subpart RRR, 4-20-2006]; NOX: 60 PPMV NATURAL GAS (3) [RULE 2012, 5-6-2005]; PM: (9) [RULE 405, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B27.1, B59.1, C1.8, C1.9, D12.1, D323.1, E71.2, E147.1

\* (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 KAISER ALUMINUM FABRICATED PRODUCTS, LLC

### 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
<p>FURNACE, HOLDING, MELTING, REVERBATORY, NATURAL GAS, ALUMINUM, REVERBATORY TYPE, WITH LOW NOX BURNER, 32 MMBTU/HR WITH A/N:</p> <p>BURNER, NATURAL GAS, BLOOM ENGINEERING, WITH LOW NOX BURNER, 24 MMBTU/HR</p> <p>BURNER, NATURAL GAS, NORTH AMERICAN MFG. CO., MODEL 4575-9, WITH LOW NOX BURNER, 8 MMBTU/HR</p>	D9		NOX: LARGE SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; HAP: (10) [40CFR 63 Subpart RRR, 4-20-2006]; NOX: 60 PPMV NATURAL GAS (3) [RULE 2012, 5-6-2005]; PM: (9) [RULE 405, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B27.1, B59.1, C1.8, C1.9, D12.1, D323.1, E71.2, E147.1
<p>FURNACE, NATURAL GAS, ALUMINUM, WITH LOW NOX BURNER, 28 MMBTU/HR WITH A/N:</p> <p>BURNER, NATURAL GAS, HAUK, MODEL HMG-1060, WITH LOW NOX BURNER, 28 MMBTU/HR</p>	D10		NOX: LARGE SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 67.3 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]; NOX: 75 PPMV NATURAL GAS (3) [RULE 2012, 5-6-2005]; PM: (9) [RULE 405, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B59.1, C1.4, D12.1, E71.1

- \* (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 KAISER ALUMINUM FABRICATED PRODUCTS, LLC

### 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
Process 3 - Rotary Drums Equipment - Subject to Source-Specific Rules					
COOLER, ALUMINUM, DROSS, ROTARY DRUM A/N: 347131	D11	C12		PM: (9) [RULE 405, 2-7-1986]	C1.5, D323.1
CYCLONE A/N: 257298	C12	D11 C13			
BAGHOUSE, DAY, MODEL HPW, 1290 SQ.FT. A/N: 257298	C13	C12		PM: (9) [RULE 404, 2-7-1986]	D322.1, D381.1, E102.1, E193.1, K67.1
FURNACE, BILLET, NATURAL GAS, ALUMINUM, WITH LOW NOX BURNER, 10.8 MMBTU/HR WITH A/N: 480574  BURNER, NATURAL GAS, GRANCO CLARK, MODEL 1116-50-6 SST-HOT-JET, WITH LOW NOX BURNER, 96 TOTAL; 0.113 MMBTU/HR	D14		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 405, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B59.1, C1.11, D12.1
Process 3 - Rotary Drums Equipment - Subject to Source-Specific Rules					
RULE 219 EXEMPT EQUIPMENT, COOLING TOWERS	E37				H23.2
RULE 219 EXEMPT EQUIPMENT, AIR CONDITIONING UNITS	E38				H23.1
RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, PORTABLE, ARCHITECTURAL COATINGS	E39			ROG: (9) [RULE 1113, 11-8-1996; RULE 1113, 7-13-2007; RULE 1171, 11-7-2003; RULE 1171, 5-1-2009]	K67.2

\* (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 KAISER ALUMINUM FABRICATED PRODUCTS, LLC**

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

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

#### **FACILITY CONDITIONS**

F9.1 Except for open abrasive blasting operations, the operator shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:

(a) As dark or darker in shade as that designated No.1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or

(b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (a) of this condition.

[RULE 401, 3-2-1984; RULE 401, 11-9-2001]

#### **DEVICE CONDITIONS**

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

B27.1 The operator shall not use flux containing any compounds identified in the SCAQMD Rule 1401, as amended 10-jul-1998.

[RULE 1401, 9-10-2010]

[Devices subject to this condition : D8, D9]

B27.2 The operator shall not use flux containing any compounds identified in the SCAQMD Rule 1401, as amended 07-dec-1990.

[RULE 1401, 9-10-2010]

## FACILITY PERMIT TO OPERATE KAISER ALUMINUM FABRICATED PRODUCTS, LLC

### 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 : D6]

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 401, 3-2-1984; RULE 401, 11-9-2001]

[Devices subject to this condition : D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D14, D47]

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

C1.2 The operator shall limit the material processed to no more than 5400 ton(s) in any one month.

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

[Devices subject to this condition : D6]

C1.3 The operator shall limit the natural gas fuel usage to no more than 1.5e+06 cubic feet per month.

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

[Devices subject to this condition : D5, D7]

C1.4 The operator shall limit the natural gas fuel usage to no more than 7.5e+06 cubic feet per month.

## FACILITY PERMIT TO OPERATE KAISER ALUMINUM FABRICATED PRODUCTS, LLC

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

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

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

[Devices subject to this condition : D10]

- C1.5 The operator shall limit the material processed to no more than 540000 lb(s) in any one month.

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

[Devices subject to this condition : D11]

- C1.6 The operator shall limit the natural gas fuel usage to no more than 5e+06 cubic feet per month.

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

[Devices subject to this condition : D6]

- C1.8 The operator shall limit the natural gas fuel usage to no more than 1.8e+07 cubic feet per month.

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

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

[Devices subject to this condition : D8, D9]

- C1.9 The operator shall limit the material processed to no more than 5400 ton(s) in any one month.

## FACILITY PERMIT TO OPERATE KAISER ALUMINUM FABRICATED PRODUCTS, LLC

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

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

This limit shall be based on the total combined limit for equipment devices D8 and D9.

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

For the purpose of this condition, material processed shall be defined as aluminum.

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

[Devices subject to this condition : D8, D9]

C1.10 The operator shall limit the natural gas fuel usage to no more than 1980000 cubic feet per month.

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.

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

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

[Devices subject to this condition : D47]

C1.11 The operator shall limit the natural gas fuel usage to no more than 4,200,000 cubic feet per month.

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

[Devices subject to this condition : D14]

## FACILITY PERMIT TO OPERATE KAISER ALUMINUM FABRICATED PRODUCTS, LLC

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

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

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

D12.1 The operator shall install and maintain a(n) non-resettable totalizing fuel flow meter to accurately indicate the flow rate being supplied to the fuel supply line.

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

**[Devices subject to this condition : D5, D6, D7, D8, D9, D10, D14]**

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 December 31, 2014.

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 : D47]**

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 : C13]**

## **FACILITY PERMIT TO OPERATE KAISER ALUMINUM FABRICATED PRODUCTS, LLC**

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

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

D323.1 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on an annual basis, at least, unless the equipment did not operate during the entire annual period. The routine annual inspection shall be conducted while the equipment is in operation and during daylight hours.

If any visible emissions (not including condensed water vapor) are detected that last more than three minutes in any one hour, the operator shall verify and certify within 24 hours that the equipment causing the emission and any associated air pollution control equipment are operating normally according to their design and standard procedures and under the same conditions under which compliance was achieved in the past, and either:

- 1). Take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit; or
- 2). Have a CARB-certified smoke reader determine compliance with the opacity standard, using EPA Method 9 or the procedures in the CARB manual "Visible Emission Evaluation", within three business days and report any deviations to AQMD.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions;
- 3). Date and time visible emission was abated; and
- 4). All visible emission observation records by operator or a certified smoke reader.

## **FACILITY PERMIT TO OPERATE KAISER ALUMINUM FABRICATED PRODUCTS, LLC**

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

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

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

[Devices subject to this condition : D6, D8, D9, D11, D47]

D381.1 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on a quarterly basis, at least, unless the equipment did not operate during the entire quarterly period. The routine quarterly inspection shall be conducted while the equipment is in operation and during daylight hours. If any visible emissions (not including condensed water vapor) are detected, the operator shall take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions; and
- 3). Date and time visible emission was abated.

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

[Devices subject to this condition : C13]

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

E71.1 The operator shall not use this equipment to conduct metal melting operations.

## FACILITY PERMIT TO OPERATE KAISER ALUMINUM FABRICATED PRODUCTS, LLC

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

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

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

[Devices subject to this condition : D10]

E71.2 The operator shall only conduct fluxing in this equipment using submerged injection.

[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, D8, D9]

E102.1 The operator shall discharge dust collected in this equipment only into closed containers.

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

[Devices subject to this condition : C13]

E147.1 The operator shall not conduct refining in this equipment.

[RULE 401, 3-2-1984; RULE 401, 11-9-2001]

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

E193.1 The operator shall operate and maintain this equipment according to the following requirements:

## **FACILITY PERMIT TO OPERATE KAISER ALUMINUM FABRICATED PRODUCTS, LLC**

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

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

The operator shall operate and maintain a pressure differential gauge to measure and indicate the pressure differential across the baghouse filter bags pursuant to the operation and maintenance requirements in 40 CFR Part 64.7. The pressure differential across the filters shall be recorded at least once a day.

The baghouse pressure differential across the filter bags shall be maintained between 1" and 6" of water column whenever the equipment it serves is in operation.

For the purpose of this condition, a deviation shall be defined as when the pressure differential across the filter bags is less than 1" of water column or more than 6" of water column occurs during the normal operation of the equipment it serves.

Whenever a deviation occurs, the operator shall inspect this equipment to identify the cause of such a deviation, take immediate corrective action to maintain the pressure differential across the filter bags between 1" and 6" of water column, and keep records of the duration and cause (including unknown cause, if applicable) of the deviation and the corrective actions taken.

All deviations shall be reported to the AQMD on a semi-annual basis pursuant to the requirements specified in 40 CFR Part 64.9 and Condition Nos. 22 and 23 in Section K of this permit. The semi-annual monitoring report shall include the total operating time of this equipment and the total accumulated duration of all deviations for each semi-annual reporting period specified in Condition No. 23 in Section K of this permit.

The operator shall submit an application with an Quality Improvement Plan (QIP) in accordance with 40 CFR Part 64.8 to the AQMD if more than six deviations occur in any semi-annual reporting period specified in Condition No. 23 in Section K of this permit. The required QIP shall be submitted to the AQMD within 90 calendar days after the due date for the semi-annual monitoring report.

The operator shall inspect and maintain all components of this equipment on an annual basis in accordance with the manufacturer's specifications.

The operator shall keep adequate records in a format that is acceptable to the AQMD

## FACILITY PERMIT TO OPERATE KAISER ALUMINUM FABRICATED PRODUCTS, LLC

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

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

to demonstrate compliance with all applicable requirements specified in this condition and 40 CFR Part 64.9 for a minimum of five years.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; 40CFR Part 64, 10-22-1997]

[Devices subject to this condition : C13]

#### 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, 12-3-2010]

[Devices subject to this condition : E38]

H23.2 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Chromium, Hexavalent	District Rule	1404

[RULE 1404, 4-6-1990]

[Devices subject to this condition : E37]

## FACILITY PERMIT TO OPERATE KAISER ALUMINUM FABRICATED PRODUCTS, LLC

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

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

#### **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):

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 : C13]

**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  
KAISER ALUMINUM FABRICATED PRODUCTS, LLC**

**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 : E39]

## FACILITY PERMIT TO OPERATE KAISER ALUMINUM FABRICATED PRODUCTS, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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
FURNACE, HOLDING, MELTING, REVERBATORY, NATURAL GAS, ALUMINUM, WITH LOW NOX BURNER, 38 MMBTU/HR WITH A/N:					
BURNER, NATURAL GAS, BLOOM ENGINEERING, MODEL S-1150-100, 2 REGENERATIVE LOW NOX BURNERS, EACH 15 MMBTU/HR  BURNER, NATURAL GAS, NORTH AMERICAN MFG. CO., MODEL 4575-9, WITH LOW NOX BURNER, 8 MMBTU/HR	D8		NOX: LARGE SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; HAP: (10) [40CFR 63 Subpart RRR, 4-20-2006]; NOX: 60 PPMV NATURAL GAS (3) [RULE 2012, 5-6-2005]; NOX: 60 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]; PM: (9) [RULE 405, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B27.1, B59.1, C1.8, C1.9, D12.1, D323.1, E71.2, E147.1

\* (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 KAISER ALUMINUM FABRICATED PRODUCTS, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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
FURNACE, HOLDING, MELTING, REVERBATORY, NATURAL GAS, ALUMINUM, WITH LOW NOX BURNER, 38 MMBTU/HR WITH A/N:					
FURNACE, HOLDING, MELTING, REVERBATORY, NATURAL GAS, ALUMINUM, WITH LOW NOX BURNER, 38 MMBTU/HR WITH A/N:	D9		NOX: LARGE SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; HAP: (10) [40CFR 63 Subpart RRR, 4-20-2006]; NOX: 60 PPMV NATURAL GAS (3) [RULE 2012, 5-6-2005]; NOX: 60 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]; PM: (9) [RULE 405, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B27.1, B59.1, C1.8, C1.9, D12.1, D323.1, E71.2, E147.1
BURNER, NATURAL GAS, BLOOM ENGINEERING, MODEL S-1150-100, 2 REGENERATIVE LOW NOX BURNERS, EACH 15 MMBTU/HR					
BURNER, NATURAL GAS, NORTH AMERICAN MGF. CO., MODEL 4575-9, WITH LOW NOX BURNER, 8 MMBTU/HR					

\* (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 KAISER ALUMINUM FABRICATED PRODUCTS, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

#### FACILITY CONDITIONS

F9.1 Except for open abrasive blasting operations, the operator shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:

(a) As dark or darker in shade as that designated No.1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or

(b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (a) of this condition.

[RULE 401, 3-2-1984; RULE 401, 11-9-2001]

#### DEVICE CONDITIONS

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

B27.1 The operator shall not use flux containing any compounds identified in the SCAQMD Rule 1401, as amended 10-jul-1998.

[RULE 1401, 9-10-2010]

[Devices subject to this condition : D8, D9]

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 401, 3-2-1984; RULE 401, 11-9-2001]

[Devices subject to this condition : D8, D9, D10]

## FACILITY PERMIT TO OPERATE KAISER ALUMINUM FABRICATED PRODUCTS, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

#### C. Throughput or Operating Parameter Limits

- C1.4 The operator shall limit the natural gas fuel usage to no more than 7.5e+06 cubic feet per month.

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

[Devices subject to this condition : D10]

- C1.8 The operator shall limit the natural gas fuel usage to no more than 1.8e+07 cubic feet per month.

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

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

[Devices subject to this condition : D8, D9]

- C1.9 The operator shall limit the material processed to no more than 5400 ton(s) in any one month.

This limit shall be based on the total combined limit for equipment devices D8 and D9.

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

For the purpose of this condition, material processed shall be defined as aluminum.

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

[Devices subject to this condition : D8, D9]

#### D. Monitoring/Testing Requirements

**FACILITY PERMIT TO OPERATE  
KAISER ALUMINUM FABRICATED PRODUCTS, LLC**

**SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

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

D12.1 The operator shall install and maintain a(n) non-resettable totalizing fuel flow meter to accurately indicate the flow rate being supplied to the fuel supply line.

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

**[Devices subject to this condition : D8, D9, D10]**

## **FACILITY PERMIT TO OPERATE KAISER ALUMINUM FABRICATED PRODUCTS, LLC**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

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

D323.1 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on an annual basis, at least, unless the equipment did not operate during the entire annual period. The routine annual inspection shall be conducted while the equipment is in operation and during daylight hours.

If any visible emissions (not including condensed water vapor) are detected that last more than three minutes in any one hour, the operator shall verify and certify within 24 hours that the equipment causing the emission and any associated air pollution control equipment are operating normally according to their design and standard procedures and under the same conditions under which compliance was achieved in the past, and either:

- 1). Take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit; or
- 2). Have a CARB-certified smoke reader determine compliance with the opacity standard, using EPA Method 9 or the procedures in the CARB manual "Visible Emission Evaluation", within three business days and report any deviations to AQMD.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions;
- 3). Date and time visible emission was abated; and
- 4). All visible emission observation records by operator or a certified smoke reader.

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

**FACILITY PERMIT TO OPERATE  
KAISER ALUMINUM FABRICATED PRODUCTS, LLC**

**SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

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

[Devices subject to this condition : D8, D9]

**E. Equipment Operation/Construction Requirements**

E71.1 The operator shall not use this equipment to conduct metal melting operations.

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

[Devices subject to this condition : D10]

E71.2 The operator shall only conduct fluxing in this equipment using submerged injection.

[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 : D8, D9]

E147.1 The operator shall not conduct refining in this equipment.

[RULE 401, 3-2-1984; RULE 401, 11-9-2001]

[Devices subject to this condition : D8, D9]

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**PERMIT TO CONSTRUCT**

KAISER ALUMINUM FABRICATED PRODUCTS, LLC  
6250 EAST BANDINI BLVD.  
LOS ANGELES, CA 90040

**EQUIPMENT DESCRIPTION****APPLICATION NO. 528823**

DEVICE NO. D8, FURNACE, HOLDING, MELTING, REVERBATORY, NATURAL GAS, ALUMINUM, 38 MMBTU/HR, WITH ONE 8.0 MMBTU/HR LOW NOX BURNER, NORTH AMERICAN MFG. CO., MODEL NO. 4575-9, AND TWO 15 MMBTU/HR REGENERATIVE LOW NOX BURNERS, BLOOM ENGINEERING, COMPANY, INC., MODEL NO. S-1150-100.

**APPLICATION NO. 528824**

TITLE V/RECLAIM FACILITY PERMIT REVISION APPLICATION.

**APPLICATION NO. 528825**

DEVICE NO. D8, FURNACE, HOLDING, MELTING, REVERBATORY, NATURAL GAS, ALUMINUM, 38 MMBTU/HR, WITH ONE 8.0 MMBTU/HR LOW NOX BURNER, NORTH AMERICAN MFG. CO., MODEL NO. 4575-9, AND TWO 15 MMBTU/HR REGENERATIVE LOW NOX BURNERS, BLOOM ENGINEERING, COMPANY, INC., MODEL NO. S-1150-100.

**HISTORY**

Application No. 528823 was filed on 11/3/11 for modification of an existing aluminum melting furnace (Device No. D8) operating under permit to operate F73270 (A/N 433863) by replacing the furnace's two existing regenerative burners. The company decided to replace the two existing regenerative burners with two new and more efficient LOW NOX burners. The new burners are each rated at 15 MMBTU/hr (30 MMBTU/hr total). The existing burners' total heat input are 24 MMBTU/hr. The furnace (D8) has an existing facility permit condition (C1.8) that limits the natural gas fuel usage to

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18,000,000 cubic feet per month and the company is not requesting any increase in fuel usage. The new LOW NOX burners' NOX emissions are guaranteed to be 60 ppmv or lower to comply with BACT.

Application No. 528824 was filed on 11/3/11 for a TITLE V/RECLAIM facility permit revision.

Application No. 528825 was filed on 11/3/11 for modification of an existing aluminum melting furnace (Device No. D8) operating under permit to operate F73269 (A/N 433864) by replacing the furnace's two existing regenerative burners. The company decided to replace the two existing regenerative burners with two new and more efficient LOW NOX burners. The new burners are each rated at 15 MMBTU/hr (30 MMBTU/hr total). The existing burners' total heat input are 24 MMBTU/hr. The furnace (D9) has an existing facility permit condition (C1.8) that limits the natural gas fuel usage to 18,000,000 cubic feet per month and the company is not requesting any increase in fuel usage. The new LOW NOX burners' NOX emissions are guaranteed to be 60 ppmv or lower to comply with BACT.

**PROCESS DESCRIPTION**

For process description, see the supplemental information submitted by the company's consultant.

**CALCULATION**

**MAXIMUM EMISSIONS (PTE):**

Given:

- 1) Operating Schedule: 24 hrs/day
- 2) Furnace rating = 38 MMBTU/hr
- 3) Furnace's fuel usage = 36,190.48 ft<sup>3</sup>/hr, 868,571.43 ft<sup>3</sup>/day

Except for NOX emissions, emission factor from District Form B1 will be used to calculate emissions. NOX emissions will be calculated using the BACT and RECLAIM concentration limit of 60 ppmv @ 3% O<sub>2</sub> ( 76.92 lbs/10<sup>6</sup>- ft<sup>3</sup> ).

$$\begin{aligned} \text{NOX} &= 76.92 \text{ lbs}/10^6\text{-ft}^3 \times 36,190.48 \text{ ft}^3/\text{hr} = 2.78 \text{ lbs}/\text{hr} \\ &= 2.78 \text{ lbs}/\text{hr} \times 24 \text{ hrs}/\text{day} = 66.72 \text{ lbs}/\text{day} \end{aligned}$$

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$$\begin{aligned} \text{ROG} &= 7 \text{ lbs}/10^6 \text{- ft}^3 \times 36,190.48 \text{ ft}^3/\text{hr} = 0.25 \text{ lb/hr} \\ &= 0.25 \text{ lb/hr} \times 24 \text{ hrs/day} = 6 \text{ lbs/day} \\ \text{CO} &= 35 \text{ lbs}/10^6 \text{- ft}^3 \times 36,190.48 \text{ ft}^3/\text{hr} = 1.27 \text{ lbs/hr} \\ &= 1.27 \text{ lbs/hr} \times 24 \text{ hrs/day} = 30.48 \text{ lbs/day} \\ \text{PM}_{10} &= 7.5 \text{ lbs}/10^6 \text{- ft}^3 \times 36,190.48 \text{ ft}^3/\text{hr} = 0.27 \text{ lb/hr} \\ &= 0.27 \text{ lb/hr} \times 24 \text{ hrs/day} = 6.48 \text{ lbs/day} \\ \text{SOX} &= 0.83 \text{ lb}/10^6 \text{- ft}^3 \times 36,190.48 \text{ ft}^3/\text{hr} = 0.03 \text{ lb/hr} \\ &= 0.03 \text{ lb/hr} \times 24 \text{ hrs/day} = 0.72 \text{ lb/day} \end{aligned}$$

**30 DAY AVERAGE EMISSIONS:**

Given:

- 1) Operating Schedule: 24 hrs/day, 7 days/wk, 52 wks/year
- 2) Furnace rating = 38 MMBTU/hr
- 3) Furnace's fuel usage = 600,000 ft<sup>3</sup>/day, 18,000,000 ft<sup>3</sup>/mo

Except for NOX emissions, emission factor from District Form B1 will be used to calculate emissions. NOX emissions will be calculated using the BACT and RECLAIM concentration limit of 60 ppmv @ 3% O<sub>2</sub> ( 76.92 lbs/10<sup>6</sup>- ft<sup>3</sup> ).

$$\begin{aligned} \text{NOX} &= 76.92 \text{ lbs}/10^6 \text{- ft}^3 \times 600,000 \text{ ft}^3/\text{day} = 46.15 \text{ lbs/day} \\ \text{ROG} &= 7 \text{ lbs}/10^6 \text{- ft}^3 \times 600,000 \text{ ft}^3/\text{day} = 4.2 \text{ lbs/day} \\ \text{CO} &= 35 \text{ lbs}/10^6 \text{- ft}^3 \times 600,000 \text{ ft}^3/\text{day} = 21 \text{ lbs/day} \\ \text{PM}_{10} &= 7.5 \text{ lbs}/10^6 \text{- ft}^3 \times 600,000 \text{ ft}^3/\text{day} = 4.5 \text{ lbs/day} \\ \text{SOX} &= 0.83 \text{ lb}/10^6 \text{- ft}^3 \times 600,000 \text{ ft}^3/\text{day} = 0.5 \text{ lb/day} \end{aligned}$$

**DAILY EMISSION INCREASE (PTE):**

Maximum daily emission increase will be calculated to show compliance with Rule 212(c)(2).

Given:

- 1) Operating Schedule: 24 hrs/day
- 2) Furnace rating increase = 6 MMBTU/hr
- 3) Furnace's rating increase fuel usage = 5,714.29 ft<sup>3</sup>/hr

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Except for NOX emissions, emission factor from District Form B1 will be used to calculate emissions. NOX emissions will be calculated using the BACT and RECLAIM concentration limit of 60 ppmv @ 3% O<sub>2</sub> ( 76.92 lbs/10<sup>6</sup>- ft<sup>3</sup> ).

$$\text{NOX} = 76.92 \text{ lbs}/10^6\text{-ft}^3 \times 5,714.29 \text{ ft}^3/\text{hr} = 0.44 \text{ lb/hr}$$

$$= 0.44 \text{ lb/hr} \times 24 \text{ hrs/day} = 10.56 \text{ lbs/day}$$

$$\text{ROG} = 7 \text{ lbs}/10^6\text{-ft}^3 \times 5,714.29 \text{ ft}^3/\text{hr} = 0.04 \text{ lb/hr}$$

$$= 0.04 \text{ lb/hr} \times 24 \text{ hrs/day} = 0.96 \text{ lb/day}$$

$$\text{CO} = 35 \text{ lbs}/10^6\text{-ft}^3 \times 5,714.29 \text{ ft}^3/\text{hr} = 0.2 \text{ lb/hr}$$

$$= 0.2 \text{ lb/hr} \times 24 \text{ hrs/day} = 4.8 \text{ lbs/day}$$

$$\text{PM10} = 7.5 \text{ lbs}/10^6\text{-ft}^3 \times 5,714.29 \text{ ft}^3/\text{hr} = 0.04 \text{ lb/hr}$$

$$= 0.04 \text{ lb/hr} \times 24 \text{ hrs/day} = 0.96 \text{ lb/day}$$

$$\text{SOX} = 0.83 \text{ lb}/10^6\text{-ft}^3 \times 5,714.29 \text{ ft}^3/\text{hr} = 0.0 \text{ lb/hr}$$

**DAILY EMISSION INCREASE:**

Criteria Pollutant	NOX lb/day	ROG lb/day	CO lb/day	PM10 lb/day
Emissions Increase	10.56	0.96	4.80	0.96
Rule 212(g) Maximum Allowed Emissions Increase	40	30	220	30

**RULE EVALUATION**

**RULE 212 (c)(1):** This section requires a public notice for all new or modified permit units that emit air contaminants located within 1,000 feet from the outer boundary of a school.

No public notice is required since the nearest school from this facility is approximately 4,752 feet.

**(c)(2):** This section requires a public notice for all new or modified facilities that have on-site emission increases exceeding any of the daily maximums as specified by Rule 212(g).

The proposed project will result in emission increase for the entire facility. As shown on the above Table, a Rule 212(c) (2) notice will not be triggered since the emission increase from this facility is below the daily maximum specified in Rule 212(g).

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**(c)(3):** This section requires a public notice for all new or modified permit unit with increases in emissions of toxic air contaminants listed in Table I of Rule 1401 resulting in MICR greater than 1E-6 per permit unit or greater than 10E-6 per facility.

The proposed project will not result in any emission increase of toxic emissions associated with the operation. Therefore Public Notice is not required under this section of the rule.

**(g):** Project emissions < threshold.

**RULE 219** No exempt equipment in this project.

**RULE 401** No visible emission is expected with proper operation of the equipment.

**RULE 402** No nuisance is expected with proper operation of the equipment.

**RULE 404** Equipment is expected to operate in compliance.

**RULE 405** Equipment is expected to operate in compliance.

**REG XIII/XX** The revised version of Reg. XIII ( eff. 4/20/01 ) is applicable.

**OFFSET:** The modification of the melting furnace will not result in any net emission increase therefore no emission offset is required. Previous NSR entry will be used.

**BACT:** The melting furnace will be equipped with LOW NOX burners with concentration limit of 60 ppmv at 3% O<sub>2</sub> which is BACT for this type of equipment.

**MODELING:** The modification of the melting furnace will not result in any net emission increase for CO, NOX, PM10, ROG and SOX. Since modeling requirements are based on hourly emissions, the modification of the furnace will result in increase in PTE (potential to emit) and hourly emissions increase and therefore modeling is required. When the company filed applications on 11/3/99 to add an 8 MMBTU/hr/each for melting furnaces D8 and D9, a detailed air quality modeling for NOX emissions was performed by the applicant and reviewed by the District on 11/16/99. The results of the modeling showed that the peak NOX concentration increase from the proposed furnaces to be 6.48 ug/m<sup>3</sup> and 0.6 ug/m<sup>3</sup> for 1-hour and annual average concentrations. Both levels are below the significant change in air quality concentrations threshold of 20

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ug/m<sup>3</sup> and 1 ug/m<sup>3</sup> for 1-hour and annual average concentrations of Rule 1303 , Appendix A, Table A-2. To ratio the increase of 6 MMBTU/hr/each for melting furnaces D8 and D9 (6 MMBTU/hr/8 MMBTU/hr x 1.16 lbs/hr x 6.48 ug/m<sup>3</sup> = 5.64 ug/m<sup>3</sup> and 6 MMBTU/hr/8 MMBTU/hr x 1.16 lbs/hr x 0.6 ug/m<sup>3</sup> = 0.522 ug/m<sup>3</sup>), the results will be below the significant change in air quality concentrations threshold of 20 ug/m<sup>3</sup> and 1 ug/m<sup>3</sup> for 1-hour and annual average concentrations of Rule 1303 , Appendix A, Table A-2 and therefore no further modeling is required.

**RULE 3000** As shown on the above evaluation, the modification of the melting furnace will not result in any net emission increase, the modification to the Title V permit is a minor permit revision.

**RECOMMENDATION**

Issue a permit to construct with conditions.