

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Craig W. Butler, Director

4/28/2014

Certified Mail

NATHAN HOOPES  
GNW ALUMINUM, INC.  
PO BOX 2418  
1356 HARRISBURG STREET  
ALLIANCE, OH 44601

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
No	SYNTHETIC MINOR TO AVOID TITLE V
No	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 1576001922  
Permit Number: P0101112  
Permit Type: Renewal  
County: Stark

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

**How to appeal this permit**

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
77 South High Street, 17th Floor  
Columbus, OH 43215

## **How to save money, reduce pollution and reduce energy consumption**

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: [www.ohioairquality.org/clean\\_air](http://www.ohioairquality.org/clean_air)

## **How to give us feedback on your permitting experience**

Please complete a survey at [www.epa.ohio.gov/survey.aspx](http://www.epa.ohio.gov/survey.aspx) and give us feedback on your permitting experience. We value your opinion.

## **How to get an electronic copy of your permit**

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Canton City Health Department at (330)489-3385 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

*Michael W. Ahern*

Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: Canton



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
GNW ALUMINUM, INC.**

Facility ID:	1576001922
Permit Number:	P0101112
Permit Type:	Renewal
Issued:	4/28/2014
Effective:	4/28/2014
Expiration:	10/27/2019





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
GNW ALUMINUM, INC.

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**Final Permit-to-Install and Operate**  
GNW ALUMINUM, INC.  
**Permit Number:** P0101112  
**Facility ID:** 1576001922  
**Effective Date:** 4/28/2014

## Authorization

Facility ID: 1576001922  
Application Number(s): A0032873  
Permit Number: P0101112  
Permit Description: PTIO renewal permit for two 1.2 TPH rotary sweat furnaces with afterburners.  
Permit Type: Renewal  
Permit Fee: \$0.00  
Issue Date: 4/28/2014  
Effective Date: 4/28/2014  
Expiration Date: 10/27/2019  
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

GNW ALUMINUM, INC.  
1356 HARRISBURG STREET  
Alliance, OH 44601

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

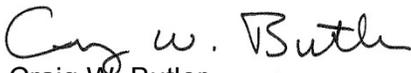
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Canton City Health Department  
420 Market Avenue  
Canton, OH 44702-1544  
(330)489-3385

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

  
Craig W. Butler  
Director



## Authorization (continued)

Permit Number: P0101112

Permit Description: PTIO renewal permit for two 1.2 TPH rotary sweat furnaces with afterburners.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

**Group Name: Aluminum Sweat Furnaces**

<b>Emissions Unit ID:</b>	<b>P001</b>
Company Equipment ID:	Furnace No. 1
Superseded Permit Number:	15-01598
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P002</b>
Company Equipment ID:	Sweat Furnace #2
Superseded Permit Number:	15-01600
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install and Operate**  
GNW ALUMINUM, INC.  
**Permit Number:** P0101112  
**Facility ID:** 1576001922  
**Effective Date:** 4/28/2014

## **A. Standard Terms and Conditions**



**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is



very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.



**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the [DO/LAA] in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.



**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



**Final Permit-to-Install and Operate**  
GNW ALUMINUM, INC.  
**Permit Number:** P0101112  
**Facility ID:** 1576001922  
**Effective Date:** 4/28/2014

## **B. Facility-Wide Terms and Conditions**



**Final Permit-to-Install and Operate**

GNW ALUMINUM, INC.

**Permit Number:** P0101112

**Facility ID:** 1576001922

**Effective Date:** 4/28/2014

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) None.



**Final Permit-to-Install and Operate**  
GNW ALUMINUM, INC.  
**Permit Number:** P0101112  
**Facility ID:** 1576001922  
**Effective Date:** 4/28/2014

## **C. Emissions Unit Terms and Conditions**



**1. Emissions Unit Group -Aluminum Sweat Furnaces: P001,P002,**

EU ID	Operations, Property and/or Equipment Description
P001	1.2 ton/hr. sweat furnace No. 1 for the Secondary processing of aluminum utilizing an afterburner
P002	1.2 ton/hr. sweat furnace No. 2 for the Secondary processing of aluminum utilizing an afterburner

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)(a)(ii)  PTI 15-01598 issued 1/24/06 and 15-01600 issued 1/24/06.	See sections b)(2)c. f)(1)d. and f)(1)e., below.
b.	OAC rule 3745-17-07(A)(1)	Visible PE emissions from this emission unit shall not exceed 20% opacity, as a 6-minute average.  See sections d)(6), e)(4) and f)(1)a. below.
c.	OAC rule 3745-17-10	The maximum allowable amount of particulate emissions from the fuel burning equipment which is fired only with gaseous fuels, oil shall be 0.020 pound per million Btu of actual heat input.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See sections b)(2)b, c)(2), d)(7), e)(4) and f)(1)c. below.
d.	OAC rule 3745-17-11(B)(1) Table I	Particulate emissions (PE) from this emissions unit shall not exceed 4.76 lbs/hr.  See section f)(1)b below
e.	40 CFR 63.1505 (f) Subpart RRR	Dioxin/Furan emissions shall not exceed 0.8nanogram TEQ per dry standard cubic meterat 11% oxygen.  See sections b)(2)c., c)(1), d)(1), e)(1), and f)(1)e. below.

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions (PE), carbon monoxide (CO), nitrogen oxides (NOx), sulfur dioxides (SO2), organic compound (OC) and/or volatile organic compound (VOC) emissions from this emissions unit since the potential emissions are less than ten tons per year.
- b. The emissions unit shall only burn natural gas a fuel, therefore compliance with the PE emission limit of .020 pound per million Btu of actual heat input is assumed. Prior to the use of any fuel other than natural gas as fuel in this emissions unit will need to be reviewed in accordance with air pollution permit requirements prior to the use of alternative fuels are initiated. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.
- c. The permittee shall comply with 40 CFR 63 Subpart RRR under paragraph 63.1505(f)(1), as an area source, by operating and maintaining an afterburner with a design residence time of 0.8 second or greater and an operating temperature of 1600 degrees Fahrenheit or greater.
- d. The permittee shall operate this emissions unit and associated afterburner in accordance with the requirements for a sweat furnace operating as an area source. The permittee shall prepare and implement an Operation, Maintenance and Monitoring (OM&M) Plan as required in 40 CFR 63.1510(b). The owner or operator must comply with all of the provisions of the OM&M plan as submitted to and approved by the Canton City Health Department or Central Office, unless and until the plan is revised and the revisions are approved by the same office. If the Ohio EPA determines at any time, following the receipt of the OM&M plan, that any revisions to the plan are necessary to satisfy the requirements of this section or Subpart RRR, the owner or operator must promptly make all



necessary revisions and resubmit the revised plan. If the owner or operator determines that any other revision(s) or modification(s) to the OM&M plan is/are necessary, such revision(s) shall not become effective until submitted and approved by the Ohio EPA. The OM&M plan must contain the following information:

- i. The process and control device parameters to be monitored to determine compliance, along with the established operating levels/limits or ranges, as applicable, for the furnace and afterburner;
- ii. A monitoring schedule for the sweat furnace and its afterburner;
- iii. Procedures for the proper operation and maintenance of the sweat furnace and afterburner used to meet the emission limit from 40 CFR 63.1505, i.e., dioxin/furan emissions not to exceed 0.8 nanogram TEQ per dry standard cubic meter at 11% oxygen;
- iv. Procedures for proper operation and maintenance of monitoring devices or systems used to determine compliance, including:
  - (a) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and
  - (b) Procedures for the quality control and quality assurance of continuous emission monitoring systems as required by the general provisions in 40 CFR 63 Subpart A;
- v. Procedures for monitoring process and control device parameters, including procedures for annual inspections of afterburners; and if required, the procedure(s) that would be used for determining charge/feed rate (or throughput) if a process weight rate is required;
- vi. Corrective actions to be taken when process/operating parameters or afterburner control parameters deviate from the established value/limit or range, including:
  - (a) Procedures to determine and record the cause of a deviation or excursion, and the time the deviation or excursion began and ended; and
  - (b) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed; and
- vii. A maintenance schedule for the afterburner that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.



- e. Startup, shutdown, and malfunction plan. The permittee shall develop and implement a written plan as described in 40 CFR Part 63 Subpart RRR Section 63.6(e)(3), that contains specific procedures to be followed for operating and maintaining the emissions unit during periods of startup, shutdown, and malfunction; and a program of corrective action for any malfunction of the sweat furnace or afterburner and/or deviation from process weight rate and/or afterburner restrictions, used to demonstrate compliance with the standard.
- c) Operational Restrictions
- (1) The average combustion temperature within the secondary afterburner, for any 3-hour block of time, when the emissions unit is in operation, shall not be less than 1600 degrees Fahrenheit; and the afterburner shall have a design residence time of 0.8 second or greater.
  - (2) The permittee uses natural gas only as the fuel.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall install, operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the secondary afterburner when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitoring device must meet each of the following performance and equipment specifications:
    - a. The temperature monitoring device must be installed at the exit of the combustion zone of each afterburner;
    - b. The monitoring system must record the temperature in 15-minute block averages and determine and record the average temperature for each 3-hour block of time;
    - c. The recorder response range must include zero and 1.5 multiplied by the average temperature of 1600 degrees Fahrenheit; and
    - d. The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.
  - (2) The permittee must conduct an inspection of each afterburner at least once a year and record the results. At a minimum, an inspection must include:
    - a. Inspection of all burners, pilot assemblies, and pilot sensing devices for proper operation and clean pilot sensor;
    - b. Inspection for proper adjustment of combustion air;
    - c. Inspection of internal structures (e.g. baffles) to ensure structural integrity;
    - d. Inspection of dampers, fans, and blowers for proper operation;



- e. Inspection for proper sealing;
  - f. Inspection of motors for proper operation;
  - g. Inspection of combustion chamber refractory lining and clean and replace lining as necessary;
  - h. Inspection of afterburner shell for corrosion and /or hot spots;
  - i. Documentation, for the burn cycle that follows the inspection, that the afterburner is operating properly and any necessary adjustments have been made;
  - j. Verification that the equipment is maintained in good operating condition; and
  - k. Following an equipment inspection, all necessary repairs shall be completed in accordance with the requirements of the OM&M plan. All changes in the OM&M plan shall be approved in writing by the Ohio EPA prior to implementation.
- (3) The permittee shall collect and record the following information for each day:
- a. All 3-hour blocks of time during which the average combustion temperature within the secondary afterburner, when the emissions unit was in operation, was less than 1600 degrees Fahrenheit;
  - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation; and
  - c. For any excursion from the temperature or recording requirements in "a" and/or downtime recorded in "b", a brief explanation of the cause of the excursion and/or downtime and the corrective action taken.
- (4) The permittee shall also keep records of each event as required by 40 CFR Part 63 Subpart RRR Section 63.10(b) and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in 40 CFR Part 63 Subpart RRR Section 63.6(e)(3). In addition to the information required in 40 CFR Part 63 Subpart RRR Section 63.6(e)(3), the plan must include:
- a. Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; and
  - b. Corrective actions to be taken in the event of a malfunction of a process or control device, including procedures for recording the actions taken to correct the malfunction or minimize emissions.
- (5) The owner or operator must retain each record, referenced below, for at least five years following the date of occurrence, measurement, maintenance, corrective action(s), report or record. The most recent 2 years of records must be retained at the facility and the remaining 3 years of records may be retained off-site. The owner or operator may retain records on microfilm, computer discs, magnetic tape, or microfiche. The following information must be included in these records:



- a. Each 15-minute block average afterburner operating temperature, including any period when the average temperature in any 3-hour block period falls below the compliant operating parameter value with a brief explanation of the cause of the excursion and the corrective action taken; and
  - b. The results of annual afterburner inspections.
- (6) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
  - b. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.

The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.

- (7) The permittee shall maintain records of the type and quantity of fuel used in this emissions unit.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports which identify all 3-hour blocks of time when the average temperature falls below the compliant afterburner operating temperature with a brief explanation of the cause of the excursion and the corrective action taken. The quarterly deviation reports shall be submitted as required in the Standard Terms and Conditions contained in this permit.
- (2) Notification of compliance status report. The permittee shall submit a notification of compliance status report within 60 days following startup. The notification must be signed by a responsible official who must certify its accuracy. A complete notification of compliance status report must include the information specified below; and the permittee shall provide the same notification of compliance to the Administrator (Region V). A complete notification of compliance status report shall include:
- a. The manufacturer's specification or analysis documenting the design residence time of no less than 0.8 seconds and design operating temperature of no less than 1600 degrees F for each afterburner used to control emissions from a sweat furnace that is not subject to a performance test;
  - b. The approved OM&M Plan; and



- c. The Startup, Shutdown, and Malfunction Plan (which may be included as part of the OM&M Plan).
- (3) Excess emissions/summary report and startup/shutdown/malfunction reports. As required by 40 CFR Part 63 Subpart RRR and Section 63.10, the permittee shall submit semiannual excess emissions reports and startup/shutdown/malfunction reports following the end of each 6-month reporting period. Each report must also contain the information specified in 40 CFR Part 63 Subpart RRR Section 63.10(c) for the continuous temperature monitor. When no deviation(s) from the afterburner operating parameters, process weight rate restriction, and/or no malfunction(s) have occurred, the permittee shall submit a report stating that no excess emissions, deviations from operational parameters, or malfunction(s) have occurred during the reporting period. The report shall include any of the following conditions occurring during any 6-month reporting period:
- a. A deviation from the compliant process/operating parameter values of the afterburner, i.e., the 0.8-second residence time and/or minimum operating temperature of 1600 degrees F;
  - b. Any action taken during a startup, shutdown, or malfunction that was not consistent with the procedures in the plan as described in 40 CFR Part 63 Subpart RRR Section 63.6(e)(3); and
  - c. Any period of time in which this emissions unit and/or its control device was not operated according to the requirements of this permit and/or subpart. The excess emissions/summary and malfunction report shall be postmarked or delivered by For January through June the report is due no later than July 31<sup>st</sup>, and for July through December the report is due no later than January 31<sup>st</sup>.
- (4) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- f) Testing Requirements
- (1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:
    - a. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a 6-minute average, from any stack or any roof vent serving this emission unit.



Applicable Compliance Method:

If required, compliance shall be demonstrated by visible emissions monitoring performed in accordance with 40 CFR Part 60, Appendix A, Method 9 using the methods and procedures specified in OAC rule 3745-17-03(B)(1).

b. Emission Limitations:

PE shall not exceed 4.76 lb/hr.

The above limit is based on the following equation:

$$E = 4.10 (P)^{0.67}$$

Where

E = Allowable particulate emissions in pounds per hour.

P = Process weight rate (2,400 lbs/hr) in tons

Applicable Compliance Method:

If required, compliance shall be demonstrated by emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Method 5 using the methods and procedures specified in OAC rule 3745-17-03(B)(1).

c. Emission Limitations:

PE shall not exceed 0.020 pounds per MMbtu

Applicable Compliance Method:

Compliance is based on the usage of natural gas and record keeping in section d)(7).

If required, compliance with the PE limitation shall be demonstrated in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

d. Annual emissions:

Potential annual emissions are below 10 tons per year.

The potential annual emissions for the regulated pollutants are based on the following equations:

For SO<sub>2</sub>, NO<sub>x</sub>, VOC, CO, and PE:

$$AER = \frac{(FuxEf)x 8760 \text{ hrs/year}}{2000 \text{ lbs/ton}}$$



Where:

AER= Annual Emission Rate, in tons per year;

Fu= Fuel usage, in cubic feet per hour, (6,397 ft<sup>3</sup> per hour, based on application and calculation sheets); and

Ef= Emission factor, in pounds emitted per million cubic feet of fuel used:

- i. 0.6 pounds for SO<sub>2</sub>;
- ii. 100 pounds for NO<sub>x</sub>;
- iii. 11 pounds for OC; and
- iv. 84 pounds for CO.

Applicable Compliance Method:

Based on the above equation and assumptions the calculated annual emissions rate for this emissions unit is:

- i. 0.02 tons of SO<sub>2</sub> per year;
- ii. 4.69 tons of NO<sub>x</sub> per year;
- iii. 0.32 tons of OC per year;
- iv. 2.36 tons of CO per year; and

Compliance with the BAT exemption under OAC 3745-31-05(A)(3)(a)(ii) is based on the use of natural gas as fuel, and the use of emissions factors from AP-42. Any modifications to and/or changes in the emission factors may require additional review to determine the future applicability of BAT requirements under OAC rule 3745-31-05(A)(3).

e. Emission Limitation:

The dioxins/furans emissions shall not exceed 0.80 ng TEQ per dscm (3.5 x 10<sup>-10</sup> grains per dscf) at 11 percent O<sub>2</sub>.

Applicable Compliance Method:

Compliance shall be demonstrated through compliance with operational restrictions listed in c). A performance test is not required provided that the permittee operates an afterburner with a design residence time of 0.8 seconds or greater and an operating temperature of 1600 degrees F or greater.

If required, compliance shall be demonstrated by emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Method 23 using the methods and procedures specified in OAC rule 3745-17-03(B)(1).



**Final Permit-to-Install and Operate**  
GNW ALUMINUM, INC.  
**Permit Number:** P0101112  
**Facility ID:** 1576001922  
**Effective Date:** 4/28/2014

g) Miscellaneous Requirements

- (1) None.