



5/12/2015

Certified Mail

Joe Green
 JOHNSON CONTROL BATTERY GROUP INC.
 10300 INDUSTRIAL RD
 HOLLAND, OH 43528

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
Yes	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: 0448002011
 Permit Number: P0118674
 Permit Type: Administrative Modification
 County: Lucas

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

How to give us feedback on your permitting experience

Please complete a survey at 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 by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Toledo Department of Environmental Services at (419)936-3015 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Erica R. Engel-Ishida, Manager
Permit Issuance and Data Management Section, DAPC

Cc: TDES



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
JOHNSON CONTROL BATTERY GROUP INC.**

Facility ID:	0448002011
Permit Number:	P0118674
Permit Type:	Administrative Modification
Issued:	5/12/2015
Effective:	5/12/2015
Expiration:	3/20/2019



Division of Air Pollution Control
Permit-to-Install and Operate
for
JOHNSON CONTROL BATTERY GROUP INC.

Table of Contents

Authorization	3
A. Standard Terms and Conditions	6
1. What does this permit-to-install and operate ("PTIO") allow me to do?.....	7
2. Who is responsible for complying with this permit?	7
3. What records must I keep under this permit?	7
4. What are my permit fees and when do I pay them?.....	7
5. When does my PTIO expire, and when do I need to submit my renewal application?	7
6. What happens to this permit if my project is delayed or I do not install or modify my source?	8
7. What reports must I submit under this permit?	8
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?	8
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ...	8
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?	9
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?	9
12. What happens if one or more emissions units operated under this permit is/are shut down permanently?	9
13. Can I transfer this permit to a new owner or operator?.....	9
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?	10
15. What happens if a portion of this permit is determined to be invalid?	10
B. Facility-Wide Terms and Conditions.....	11
C. Emissions Unit Terms and Conditions	13
1. P020, Chemset Rooms 1 and 3	14
2. P021, APB	20
3. P024, RADCO Vacuum System.....	25
4. P028, APB 0-2	30
5. P040, Sovema Oxide Mill #1	34
6. P057, Strip Caster Line 2	40
7. P062, Sovema oxide mill #4.....	49
8. Emissions Unit Group - COS Lines: P029, P030, P031, P032, P033, P034,	55
9. Emissions Unit Group - Pasting Lines: P058, P059, P060, P061,	61



10. Emissions Unit Group - Sovema Oxide Mills 2-3: P044, P045,..... 71

11. Emissions Unit Group - Trim Dry Ovens: P035, P037, 77



Authorization

Facility ID: 0448002011
Application Number(s): M0003308
Permit Number: P0118674
Permit Description: Agency-initiated Administrative Modification to remove 40 CFR Part 63 Subpart PPPPPP as an applicable rule in the permit for each emissions unit since Ohio has not been delegated authority for this rule.
Permit Type: Administrative Modification
Permit Fee: \$0.00
Issue Date: 5/12/2015
Effective Date: 5/12/2015
Expiration Date: 3/20/2019
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

JOHNSON CONTROL BATTERY GROUP INC.
10300 INDUSTRIAL ROAD
Holland, OH 43528

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

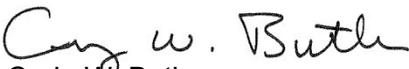
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604
(419)936-3015

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: P0118674
Permit Description: Agency-initiated Administrative Modification to remove 40 CFR Part 63 Subpart P0118674 as an applicable rule in the permit for each emissions unit since Ohio has not been delegated authority for this rule.

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

Emissions Unit ID:	P020
Company Equipment ID:	Chemset Rooms 1 and 3
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P021
Company Equipment ID:	APB 3-5
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P024
Company Equipment ID:	RADCO Vacuum System
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P028
Company Equipment ID:	APB 0-2
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P029
Company Equipment ID:	COS Line #0
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P030
Company Equipment ID:	COS Line #1
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P031
Company Equipment ID:	COS Line #2
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P032
Company Equipment ID:	COS Line #3
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P033
Company Equipment ID:	COS Line #4
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P034
Company Equipment ID:	COS Line #5
Superseded Permit Number:	P0104478



General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P035
Company Equipment ID:	Trim Dry Oven
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P037
Company Equipment ID:	Trim Dry Oven
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P040
Company Equipment ID:	Sovema Oxide Mill #1
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P044
Company Equipment ID:	Sovema Oxide Mill #2
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P045
Company Equipment ID:	Sovema Oxide Mill #3
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P057
Company Equipment ID:	Strip Caster Line 2
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P058
Company Equipment ID:	Pasting Line 1
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P059
Company Equipment ID:	Pasting Line 2
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P060
Company Equipment ID:	Pasting Line 3
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P061
Company Equipment ID:	Pasting Line 4
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P062
Company Equipment ID:	Sovema oxide mill #4
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate
JOHNSON CONTROL BATTERY GROUP INC.
Permit Number: P0118674
Facility ID: 0448002011
Effective Date: 5/12/2015

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
JOHNSON CONTROL BATTERY GROUP INC.
Permit Number: P0118674
Facility ID: 0448002011
Effective Date: 5/12/2015

B. Facility-Wide Terms and Conditions



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.

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.

None.
2. The Ohio EPA has determined that this facility is subject to the requirements of 40 CFR Part 63 Subpart P, National Emission Standards for Hazardous Air Pollutants for Lead Acid Battery Manufacturing Area Sources. Although Ohio EPA has determined that this Generally Available Control Technology NESHAP (GACT) applies, at this time Ohio EPA does not have the authority to enforce this standard. Instead, U.S. EPA has the authority to enforce this standard. Please be advised, that all requirements associated with this rule are in effect and shall be enforced by U.S. EPA. For more information on the area source rules, please refer to the following U.S. EPA website: <http://www.epa.gov/ttn/atw/area/arearules.html>.
3. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subparts A and KK: P020, P021, P024, P028–P035, P037, P040, P044, P045, and P057-P062. The complete NSPS requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Toledo Division of Environmental Services.



Final Permit-to-Install and Operate
JOHNSON CONTROL BATTERY GROUP INC.
Permit Number: P0118674
Facility ID: 0448002011
Effective Date: 5/12/2015

C. Emissions Unit Terms and Conditions



1. P020, Chemset Rooms 1 and 3

Operations, Property and/or Equipment Description:

Chemset Chamber No. 4: Drying room stack w/no controls and Natural gas burner stack, 1.8 mmBtu/hr indirect-fired burner with no controls

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. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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
P020 - Lead Oxide Plate Setting & Curing Oven Chem& Set/Plate Curing (Chemset Chambers #1 and #3).		
Drying Room Stack with no controls.		
a.	OAC rule 3745-31-05(A)(3) (PTI 04-485, modified 11/1/2007)	Emissions of lead shall not exceed 0.08 ton per year. See b)(2)a, b)(2)b and b)(2)e.
b.	40 CFR Part 60, Subpart KK	Lead emissions shall not exceed 0.000437 gr/dscf. Visible particulate emissions shall not exceed 0% opacity as a 6-minute average. See b)(2)c.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)d.
d.	OAC rule 3745-17-11(B)(1)	PE shall not exceed 0.551 lb/hr.
Natural gas burner stack, 1.8 mmBtu/hr indirect-fired burner with no controls.		
e.	OAC rule 3745-31-05(A)(3)	Carbon monoxide (CO) emissions shall not



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	(PTI 04-485, modified 11/1/2007)	exceed 0.65 ton per year. Nitrogen oxide (NOx) emissions shall not exceed 0.77 ton per year. PE shall not exceed 0.158 ton per year. See b)(2)a, b)(2)e and b)(2)f.
f.	OAC rule 3745-18-06(B)	Exemption, see b)(2)g.
g.	OAC rule 3745-17-10(B)(1)	PE shall not exceed 0.020 pound per mmBtu of heat input.
h.	OAC rule 3745-17-07(A)(1)	See b)(2)h.

(2) Additional Terms and Conditions

- a. Operate according to good engineering practice and the use of good housekeeping practices.
- b. The requirements of this rule also include compliance with the requirements of 40 CFR 60, Subpart KK and OAC rule 3745-17-11(B)(1).
- c. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
- d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 60, Subpart KK.
- e. The annual emission limitations for lead and for the combustion products were established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these limitations.
- f. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-10(B)(1) and OAC rule 3745-17-07(A)(1).
- g. This emissions unit is exempt from the requirements of OAC rule 3745-18-06(D), (F), and (G).
- h. Visible particulate emissions, from the natural gas burner stack serving this emissions unit, shall not exceed 20% opacity as a 6-minute average except as provided by the rule.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.



d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

e) Reporting Requirements

- (1) 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 limitation(s) in b) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:

0 percent opacity, as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent visible emissions test (0% opacity, tested 10/1/1998).

If required, the permittee shall demonstrate compliance with this emission limitation through visible emission observations performed in accordance with 40 CFR Part 60, Section 60.374 using methods and procedures specified in Method 9 of 40 CFR Part 60, Appendix A and Section 60.11.

b. Emission Limitation:

Lead emissions shall not exceed 0.000437 gr/dscf of lead for the drying room stack

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent stack test (0.000015 gr/dscfm, tested 10/1/1998).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Sections 60.8, 60.372 and 60.374 using methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A.



c. Emission Limitation:

PE shall not exceed 0.551 lb/hr for the drying room stack

Applicable Compliance Method:

Compliance may be demonstrated through calculations based on emission factors based on a stack test of a similar source (Tampa, FL facility, 12/1999), as follows: divide the emission factor of 5.69 E-6 lb PE per 1000 batteries by a maximum production of 163 batteries per hour.

If required, the permittee shall demonstrate compliance with this emissions limitation using Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

d. Emission Limitation:

Lead emissions shall not exceed 0.08 ton per year for the drying room stack.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance shall be demonstrated through calculations based on the most recent stack test (0.000015 gr/dscfmat 4,891 dscf/min, tested 10/1/1998) as follows: multiply 0.000015 gr/dscf by 4,891 dscf/min multiplied by 60 minutes per hour multiplied by 8,760 hours per year and divide by 7,000 grains per pound and divide by 2,000 pounds per ton.

If required, the permittee shall perform stack testing to demonstrate the short term lead emission rate through emission testing performed in accordance with Methods 1 through 4 and Method 12 of 40 CFR Part 60, Appendix A and Section 60.8. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

e. Emission Limitation:

PE shall not exceed 0.020 lb/mmBtu of heat input from the natural gas burner stack.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation using Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.



f. Emission Limitation:

PE shall not exceed 0.158 tpy for the natural gas burner stack

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance shall be demonstrated through calculations performed as follows: multiply 0.02 lb PE/mmBtu by the maximum burner rate of 1.8 mmBtu/hr by 8,760 hours per year and divide by 2,000 pounds per ton.

If required, the permittee shall perform stack testing to demonstrate the short term particulate emission rate through emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

g. Emission Limitation:

The emissions of CO shall not exceed 0.65 ton per year from the natural gas burner stack.

Applicable Compliance Method:

Compliance may be demonstrated through calculations based on emissions factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2, dated 7/98, as follows: divide the emission factor of 84 pounds of CO emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply the result by the maximum heat input capacity of 1.8 mmBtu per hour multiplied by 8,760 hours per year and divide by 2,000 pounds per ton.

If required, the permittee shall demonstrate compliance with the 84 pounds of CO emissions per million standard cubic feet emissions factor in accordance with the methods and procedures specified in Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

h. Emission Limitation:

The emissions of NOx shall not exceed 0.77 ton per year from the natural gas burner stack.

Applicable Compliance Method:

Compliance may be determined through calculations based on emissions factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2, dated 7/98, as follows: divide the



emission factor of 100 pounds of NOx emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply the result by the maximum heat input capacity of 1.8 mmBtu per hour multiplied by 8,760 hours per year and divide by 2,000 pounds per ton.

If required, the permittee shall demonstrate compliance with the 100 pounds of NOx emissions per million standard cubic feet emissions factor in accordance with the methods and procedures specified in Methods 1 through 4 and 7E of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

i. Emission Limitation:

20 percent opacity, as a 6-minute average from the natural gas burner stack

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through visible emission observations performed in accordance with 40 CFR Part 60, Section 60.374 using methods and procedures specified in Method 9 of 40 CFR Part 60, Appendix A.

g) Miscellaneous Requirements

(1) None.



2. P021, APB

Operations, Property and/or Equipment Description:

APB #3-6: Automatic Battery Post Builder (APB #3-6) with a maximum production rate of 163 batteries per hour and controlled by a baghouse.

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. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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
	P021 - Automatic Battery Post Builder (APB #3-6) with a maximum production rate of 163 batteries per hour and controlled by a baghouse.	
a.	OAC rule 3745-31-05(A)(3) (PTI 04-490, issued 2/1/1989)	Lead emissions shall not exceed 0.014 ton per year; and see b)(2)a.
b.	40 CFR Part 60, Subpart KK	0.000437 gr/dscf of lead; and see b)(2)b and b)(2)c.
c.	OAC Rule 3745-17-07(A)(1)	See b)(2)d.
d.	OAC Rule 3745-17-11(B)(1)	Particulate emissions (PE) shall not exceed 6.95 lb/hr.

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of 40 CFR 60, Subpart KK and OAC rule 3745-17-11(B)(1).



- b. Visible particulate emissions, from the stack serving this emissions unit, shall not exceed 0% opacity as a 6-minute average.
 - c. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
 - d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 60, Subpart KK.
- c) Operational Restrictions
- (1) To ensure the baghouse is operated according to the manufacturer's specifications and to maintain compliance with the allowable particulate emission rate, a pressure drop across the baghouse between 0.25 to 2.5 inches of water shall be maintained at all times except after replacement or complete cleaning of the filters at which time a pressure drop of less than 0.25 inch WC shall be acceptable.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall properly install, operate, and maintain a monitoring device capable of accurately measuring the pressure drop across this control device during all times when the process is operating. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
 - (2) The permittee shall monitor and record the pressure drop across this control device a minimum of once per day when the units are in operation. If a pressure drop is observed outside of the allowable ranges, the permittee shall record the incident and take immediate corrective actions. The permittee shall also record the corrective actions taken.
 - (3) The permittee shall perform semiannual inspections and maintenance to ensure proper performance of each fabric filter. These include inspection of structural and filter integrity. The permittee shall record the results of these inspections.
- e) Reporting Requirements
- (1) 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 b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Lead emissions shall not exceed 0.000437 gr/dscfm.

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent stack test (0.000005 gr/dscf, tested 2/7/1996).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Sections 60.8 and 60.374 using methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A.

b. Emission Limitation:

0 percent opacity, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent visible emissions test (0% opacity, tested 2/7/1996).

If required, the permittee shall demonstrate compliance with this emission limitation through visible emission observations performed in accordance with 40 CFR Part 60, Section 60.374 using methods and procedures specified in Method 9 of 40 CFR Part 60, Appendix A and Section 60.11.

c. Emission Limitation:

PE shall not exceed 6.95 pounds per hour.

Applicable Compliance Method:

Compliance may be demonstrated through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 12.15-2 dated 1/95, as follows: multiply the emission factor of 3.13 pounds of PE per 1000 batteries by a maximum battery production value of 163 batteries per hour times one minus the control efficiency (1-0.99).

If required, the permittee shall demonstrate compliance with this emissions limitation through emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.



d. Emission Limitation:

Lead emissions shall not exceed 0.014 ton per year

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance shall be demonstrated through calculations based on the most recent stack test (0.00025 lb/hr, tested 8/15/1989) performed as follows: multiply the short term emission rate of lead (0.00025 lb/hr) by 8,760 hours per year and divide by 2,000 pounds per ton.

If required, the permittee shall perform stack testing to demonstrate the short term lead emission rate through emission testing performed in accordance with Methods 1 through 4 and Method 12 of 40 CFR Part 60, Appendix A and Section 60.8. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 180 days prior to permit expiration.
 - b. The emission testing shall be conducted to demonstrate compliance with the grains per dry standard cubic foot loading for lead emissions.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulate, Method 5 of 40 CFR Part 60, Appendix A. For opacity, Method 9 of 40 CFR Part 60, Appendix A. For lead, Method 12 of 40 CFR Part 60, Appendix A. The sampling time and sample volume for each run shall be at least 60 minutes and 30 dscf. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while all of the emissions units served by the stack are operating at or near their maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services.
 - e. The permittee shall collect, record, and include in the test report the static pressure drop across the baghouse during testing.
 - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval



prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

- f. Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

- (1) None.



3. P024, RADCO Vacuum System

Operations, Property and/or Equipment Description:

RADCO Vacuum System - RADCO Vacuum System controlled by a baghouse and 2-stage HEPA filtration system.

- 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. None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operations(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. 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
	P024 - RADCO Vacuum System controlled by a baghouse and 2-stage HEPA filtration system.	
a.	OAC rule 3745-31-05(A)(3) (PTI 04-580, issued 5/16/1990)	Lead emissions shall not exceed 0.018 ton per year; and see b)(2)a. and b)(2)b.
b.	40 CFR Part 60, Subpart KK	Lead emissions shall not exceed 0.000437 gr/dscf; and see b)(2)c. Visible particulate emissions, from the stack serving this emissions unit, shall not exceed 0% opacity as a 6-minute average.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)d.
d.	OAC rule 3745-17-11(B)(1)	Particulate emissions (PE) shall not exceed 0.551 lb/hr.



(2) Additional Terms and Conditions

- a. The requirements established pursuant to this rule include compliance with 40 CFR Part 60, Subpart KK and OAC rule 3745-17-11.
- b. The permittee shall operate this emissions unit with a baghouse that is at least 99.9% efficient at all times this emissions unit is in use.
- c. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
- d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 60, Subpart KK.

c) Operational Restrictions

- (1) The permittee shall operate and maintain a two-stage HEPA filter system. The pressure drop across the first bank of HEPA filters shall not exceed 3 inches of water column (WC) while the emissions unit is in operation. The pressure drop across the second bank of HEPA filters shall be between 1 to 3.5 inches WC except after replacement or complete cleaning of the HEPA filters at which time a pressure drop of less than 1 inch WC shall be acceptable.

Operation of a HEPA filtration system at a pressure drop(s) outside the range specified above does not by itself constitute a violation of the mass emission limitation and/or visible emission limitation, but rather serves as an indicator of the need for additional stack testing and/or further investigation to establish compliance with the emission limitations.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain a monitoring device capable of accurately measuring the pressure drop across the control device(s) device during all times when the process is operating. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
- (2) The permittee shall monitor and record the pressure drop across this control device a minimum of once per day when the units are in operation. If a pressure drop is observed outside of the allowable ranges, the permittee shall record the incident and take immediate corrective actions. The permittee shall also record the corrective actions taken.
- (3) The permittee shall perform semiannual inspections and maintenance to ensure proper performance of each HEPA filter. These include inspection of structural and filter integrity. The permittee shall record the results of these inspections.



e) Reporting Requirements

- (1) 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 b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Lead emissions shall not exceed 0.000437 gr/dscf.

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent stack test (0.000097 gr/dscf, tested 4/2/1996).

If required, the permittee shall demonstrate compliance with this emission limitation thru stack testing in accordance with 40 CFR Part 60, Sections 60.8 and 60.374 using methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A.

b. Emission Limitation:

0 percent opacity, as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent visible emissions test (0% opacity, tested 4/2/1996).

If required, the permittee shall demonstrate compliance with this emission limitation through visible emission observations performed in accordance with 40 CFR Part 60, Section 60.374 using methods and procedures specified in Method 9 of 40 CFR Part 60, Appendix A and Section 60.11.

c. Emission Limitation:

PE shall not exceed 0.551 pound per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation using Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10). Alternative



U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

d. Emission Limitation:

Lead emissions shall not exceed 0.018 tpy.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance with the 0.018 ton per year of lead limitation for this emissions unit may be demonstrated using the most recent stack test results (in pounds per hour) of the RADCO Vacuum System (P024, tested 4/2/1996, 0.0008184 lbPb/hr) multiplied by 8,760 hours per year and divided by 2,000 pounds per ton.

If required, the permittee shall perform stack testing to demonstrate the short term lead emission rate through emission testing performed in accordance with Methods 1 through 4 and Method 12 of 40 CFR Part 60, Appendix A and Section 60.8. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing on RADCO #7-12 shall be conducted within 180 days of permit expiration. Additional testing will be required consistent with Ohio EPA DAPC Engineering Guide #16 or by request of the Ohio EPA or Toledo Division of Environmental Services.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) and the grains per dry standard cubic foot loading for lead emissions. This emissions testing shall also demonstrate compliance with the allowable pound of lead per hour emissions limit.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulate, Method 5 of 40 CFR Part 60, Appendix A. For opacity, Method 9 of 40 CFR Part 60, Appendix A. For lead, Method 12 of 40 CFR Part 60, Appendix A. The sampling time and sample volume for each run shall be at least 60 minutes and 30 dscf. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while all of the emissions units served by the HEPA filtration unit are operating at or near their maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services.
 - e. The permittee shall collect, record, and include in the test report the static pressure drop across the HEPA filtration system during testing.



- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
 - g. Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
 - h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
- g) Miscellaneous Requirements
- (1) None.



4. P028, APB 0-2

Operations, Property and/or Equipment Description:

APB 0-2: Automatic Battery Post Builders (APB 0-2) with a maximum production rate of 163 batteries/hr and controlled by a cartridge filter.

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. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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
	P028 - Automatic Battery Post Builders (APB 0-2) with a maximum production rate of 163 batteries/hr and controlled by a cartridge filter.	
a.	OAC rule 3745-31-05(A)(3)	See b)(2)d.
b.	40 CFR Part 60, Subpart KK	Lead emissions shall not exceed 0.000437 gr/dscf; and see b)(2)a. and b)(2)b.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)c.
d.	OAC rule 3745-17-11(B)(1)	Particulate emissions (PE) shall not exceed 6.95 pound per hour.

(2) Additional Terms and Conditions

a. Visible particulate emissions, from the stack serving this emissions unit, shall not exceed 0% opacity as a 6-minute average.

b. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio



Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.

- c. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CRR Part 60, Subpart KK.
- d. The requirements of this rule also include compliance with the requirements of 40 CFR 60, Subpart KK.

c) Operational Restrictions

- (1) To ensure the baghouse is operated according to the manufacturer's specifications and to maintain compliance with the allowable particulate emission rate, a pressure drop across the baghouse between 0 to 2.5 inches of water shall be maintained at all times.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain a monitoring device capable of accurately measuring the pressure drop across this control device during all times when the process is operating. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
- (2) The permittee shall monitor and record the pressure drop across this control device a minimum of once per day when the units are in operation. If a pressure drop is observed outside of the allowable ranges, the permittee shall record the incident and take immediate corrective actions. The permittee shall also record the corrective actions taken.
- (3) The permittee shall perform semiannual inspections and maintenance to ensure proper performance of each fabric filter. These include inspection of structural and filter integrity. The permittee shall record the results of these inspections.

e) Reporting Requirements

- (1) 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 b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

Lead emissions shall not exceed 0.000437 gr/dscfm.



Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent stack test (0.000027 gr/dscfm, tested 2/6/1996).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Sections 60.8 and 60.374 using methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A.

b. Emission Limitation:

0 percent opacity, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent visible emissions test (0% opacity, tested 2/6/1996).

If required, the permittee shall demonstrate compliance with this emission limitation through visible emission observations performed in accordance with 40 CFR Part 60, Section 60.374 using methods and procedures specified in Method 9 of 40 CFR Part 60, Appendix A and Section 60.11.

c. Emission Limitation:

PE shall not exceed 6.95 pounds per hour.

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 12.15-2 dated 1/95, as follows: multiply the emission factor of 3.13 pounds of PE per 1000 batteries by a maximum battery production value of 163 batteries per hour times the control efficiency (1-0.99).

If required, the permittee shall demonstrate compliance with this emissions limitation through emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 180 days prior to permit expiration.
- b. The emission testing shall be conducted to demonstrate compliance with the grains per dry standard cubic foot loading for lead emissions.



- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulate, Method 5 of 40 CFR Part 60, Appendix A. For opacity, Method 9 of 40 CFR Part 60, Appendix A. For lead, Method 12 of 40 CFR Part 60, Appendix A. The sampling time and sample volume for each run shall be at least 60 minutes and 30 dscf. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while all of the emissions units served by the stack are operating at or near their maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services.
- e. The permittee shall collect, record, and include in the test report the static pressure drop across the baghouse during testing.
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- g. Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

- (1) None.



5. P040, Sovema Oxide Mill #1

Operations, Property and/or Equipment Description:

Sovema Ball Mill No. 1

- 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. None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operations(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. 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
	P040 - Sovema Oxide Ball Mill #1 - controlled by a baghouse followed by a 2-stage HEPA filtration system.	
a.	OAC rule 3745-31-05(A)(3) (PTI 04-1005, modified 11/6/2007)	Particulate emissions (PE) shall not exceed 0.02 lb/hr and 0.11 ton per year; Lead emissions shall not exceed 0.01 lb/hr and 0.05 ton per year; and see b)(2)a.
b.	40 CFR Part 60, Subpart KK	0.01 lb lead/ton of lead feed for all the emission units comprising the lead oxide manufacturing facility; and see b)(2)b. Visible particulate emissions, from all stacks serving this emissions unit, shall not exceed 0% opacity as a 6-minute average.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)c.
d.	OAC rule 3745-17-11(B)(1)	See b)(2)d.



- (2) Additional Terms and Conditions
 - a. The requirements of this rule also include compliance with the requirements of 40 CFR 60, Subpart KK.
 - b. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
 - c. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 60, Subpart KK.
 - d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05.
- c) Operational Restrictions
 - (1) The permittee shall operate and maintain a two-stage HEPA filter system. The pressure drop across the first bank of HEPA filters shall not exceed 3 inches of water column (WC) while the emissions unit is in operation. The pressure drop across the second bank of HEPA filters shall be between 1 to 3.5 inches WC except after replacement or complete cleaning of the HEPA filters at which time a pressure drop of less than 1 inch WC shall be acceptable.
 - (2) Operation of the HEPA filtration system at a pressure drop(s) outside the range specified above does not by itself constitute a violation of the mass emissions limitation and/or visible emission limitation, but rather serves as an indicator of the need for additional stack testing and/or further investigation to establish compliance with the emission limitations.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) The permittee shall properly install, operate, and maintain a monitoring device capable of accurately measuring the pressure drop(s) across these control device(s) during all times when the process is operating. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
 - (2) The permittee shall monitor and record the pressure drop across this control device a minimum of once per day when the units are in operation. If a pressure drop is observed outside of the allowable ranges, the permittee shall record the incident and take immediate corrective actions. The permittee shall also record the corrective actions taken.



- (3) The permittee shall perform semiannual inspections and maintenance to ensure proper performance of each HEPA filter. These include inspection of structural and filter integrity. The permittee shall record the results of these inspections.

e) Reporting Requirements

- (1) 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 b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.01 lb lead/ton of lead feed for all the emission units comprising the lead oxide manufacturing facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent stack test (0.00019 lb/ton, tested 1/14/1998 – P040; 0.00031 lb/ton, tested 1/14/98 – P044; 0.00009 lb/ton, tested 1/14/98 – P045; 0.000641 lb/ton, tested 8/8/07 – P062; 0.000016 lb/ton, tested 7/31/2014 – P094; 0.000013 lb/ton, tested 7/29/2014 – P095).

If required, the permittee shall demonstrate compliance with this emission limitation thru stack testing of all affected sources (emissions units P040, P044, P045, P062, P094, and P095) in accordance with 40 CFR Part 60, Sections 60.8 and 60.374 using methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A.

b. Emission Limitation:

0 percent opacity, as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent visible emissions test (0% opacity, tested 1/14/1998).

If required, the permittee shall demonstrate compliance with this emission limitation through visible emission observations performed in accordance with 40 CFR Part 60, Section 60.374 using methods and procedures specified in Method 9 of 40 CFR Part 60, Appendix A and Section 60.11.



c. Emission Limitation:

PE shall not exceed 0.02 pound per hour.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance shall be demonstrated based on the most recent stack test (0.004 lb/hr, tested 1/14/1998).

If required, the permittee shall demonstrate compliance with this emissions limitation through emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

d. Emission Limitation:

PE shall not exceed 0.11 ton per year.

Applicable Compliance Method:

The 0.11 tpy emission limitation was developed by multiplying the 0.02 lb/hr emission rate by a maximum operating schedule of 8,760 hours/year and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

e. Emission Limitation:

Lead emissions shall not exceed 0.01 pound per hour.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance shall be demonstrated based on the most recent stack test (0.0002 lb/hr, tested 1/14/1998).

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with 40 CFR Part 60, Sections 60.8 and 60.374 using methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

f. Emission Limitation:

Lead emissions shall not exceed 0.05 ton per year.

Applicable Compliance Method:

The 0.05 tpy emission limitation was developed by multiplying the 0.01 lb/hr emission rate by a maximum operating schedule of 8,760 hours/year and dividing



by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 180 days prior to permit expiration.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) and the grains per dry standard cubic foot loading for lead emissions.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulate, Method 5 of 40 CFR Part 60, Appendix A. For opacity, Method 9 of 40 CFR Part 60, Appendix A. For lead, Method 12 of 40 CFR Part 60, Appendix A. The sampling time and sample volume for each run shall be at least 60 minutes and 30 dscf. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

Compliance with the 0.01 pound per ton of lead limitation for all the emission units comprising the lead oxide manufacturing facility may be demonstrated as a summation of the most stack test results (in pounds per ton) of emissions units P040, P044, P045, P062, P094 and P095. The permittee shall update and report the emissions for all of these emissions units to demonstrate compliance with the lb lead/ton lead feed emissions rate.
 - d. The test(s) shall be conducted while all of the emissions units served by this HEPA Filtration Unit are operating at or near their maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services.
 - e. The permittee shall collect, record, and include in the test report the static pressure drop across the HEPA filtration system during testing.
 - f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
 - g. Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.



h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

(1) None.



6. P057, Strip Caster Line 2

Operations, Property and/or Equipment Description:

Strip Caster Line 2

- 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. None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operations(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. 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
P057 - 5000 lb/hr strip caster melting pot, with an oil mist filter for PE and Pb control (stack 274)		
a.	OAC rule 3745-31-05(A)(3) (PTI 04-01335, issued 9/11/2003)	Particulate emissions (PE) shall not exceed 0.013 pound per hour and 0.06 ton per year; Lead emissions shall not exceed 0.0010 pound per hour and 0.004 ton of lead per year; and See b)(2)a.
b.	40 CFR Part 60, Subpart KK	0.000175 gr/dscf of lead; and 0 percent opacity as a six-minute average.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)c.
d.	OAC rule 3745-17-11(B)(1)	See b)(2)d.
2.5 MMBTU indirect-fired natural gas furnace heating the strip caster P057 (stack 275) with no controls		
e.	OAC rule 3745-31-05(A)(3) (PTI 04-01335, issued 9/11/2003)	Carbon monoxide (CO) emissions shall not exceed 0.206 pound per hour and 0.90 ton per year, Nitrogen oxide (NOx) emissions shall not exceed 0.245 pound per hour and 1.07 ton per year, PE shall not exceed 0.005 pound per hour and 0.022 ton per year,



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Sulfur dioxide (SO ₂) emissions shall not exceed 0.001 pound per hour and 0.004 ton per year, Volatile organic compounds (VOC) emissions shall not exceed 0.013 pound per hour and 0.06 ton of VOC per year, and See b)(2)b.
f.	OAC rule 3745-17-07(A)(1)	See b)(2)f.
g.	OAC rule 3745-17-10(B)(1)	See b)(2)d.
h.	OAC rule 3745-18-06(A)	See b)(2)e.

(2) Additional Terms and Conditions

- a. The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart KK.
- b. The hourly and annual emission limitations for combustion products were established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.
- c. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 60, Subpart KK.
- d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)
- e. Fuel burning equipment is exempt from OAC 3745-18-06 sulfur dioxide regulations during any calendar day in which natural gas having a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pounds per million standard cubic feet is the only fuel burned.
- f. Visible particulate emissions, from the stack serving this emissions unit, shall not exceed 20% opacity as a 6-minute average.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.
- (2) The permittee shall properly operate and maintain a monitoring device capable of accurately measuring the pressure drop across the oil mist filter.
- (3) To ensure the oil mist filter is operated according to the manufacturer's specifications and to maintain compliance with the allowable particulate and lead emission rate, a pressure drop across the mist filter of not less than 1 inch of water or greater than 3 inches of water shall be maintained at all times.



d) **Monitoring and/or Recordkeeping Requirements**

- (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) The permittee shall properly install, operate, and maintain a monitoring device capable of accurately measuring the pressure drop across the oil mist filter during all times when the process is operating. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
- (3) The permittee shall monitor and record the pressure drop across this control device a minimum of once per day when the units are in operation. If a pressure drop is observed outside of the allowable ranges, the permittee shall record the incident and take immediate corrective actions. The permittee shall also record the corrective actions taken.
- (4) The permittee shall perform semiannual inspections and maintenance to ensure proper performance of the fabric filter. These include inspection of structural and filter integrity. The permittee shall record the results of these inspections.

e) **Reporting Requirements**

- (1) 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 b) of these terms and conditions shall be determined in accordance with the following methods:

a. **Emission Limitation:**

0.000175 gr/dscf of lead (grid caster stack).

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent stack test (0.0000012 gr/dscf, tested 10/20/2004).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60 Sections 60.8 and 60.374 using methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A. The sampling time and sample volume for each run shall be at least 60 minutes and 30 dscf.



b. Emission Limitation:

0 percent opacity as a six-minute average (strip caster stack).

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent visible emissions test (0% opacity, tested 10/20/2004).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60 Section 60.374 using methods and procedures specified in Method 9 of 40 CFR Part 60, Appendix A and Section 60.11. The opacity numbers shall be rounded of to the nearest whole percentage.

c. Emission Limitation:

0.013 pound of PE per hour (strip caster stack).

Applicable Compliance Method:

Compliance may be demonstrated based upon the maximum production of 2.5 tons/hr and emission factor of 0.0655 lb PE/ton (A-42, Chapter 12.15(1/95), background document, Table 2.3-1) times (1-0.92) for control.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1 through 5 of 40 CFR Part 60, Appendix A and the procedures in OAC rule 3745-17-03(B)(10).

d. Emission Limitation:

0.06 ton of PE per year (strip caster stack).

Applicable Compliance Method:

The 0.06 tpy emission limitation was developed by multiplying the 0.013 lb/hour emission rate by a maximum operating schedule of 8760 hours/year and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

e. Emission Limitation:

0.001 pound of lead per hour (strip caster stack).

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance shall be demonstrated based on the most recent stack test (0.0000012 gr/dscf, tested 10/20/2004).



Compliance may be demonstrated based upon the maximum production of 2.5 tons/hr and emission factor of 0.00507 lbPb/ton (A-42, Chapter 12.15(1/95), background document, Table 2.3-1) times (1-0.92) for control.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A.

f. Emission Limitation:

0.004 ton of lead per year (strip caster stack).

Applicable Compliance Method:

The 0.004 tpy emission limitation was developed by multiplying the 0.0010 lb/hour emission rate by a maximum operating schedule of 8760 hours/year and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

g. Emission Limitation:

20% opacity, as a six-minute average.

Applicable Compliance Method;

Compliance shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

h. Emission Limitation:

0.206 pound of CO per hour (furnace stack).

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-1 dated 7/98, as follows: divide the emission factor of 84 pounds of CO emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply the result by the maximum heat input capacity of 2.5 MMBTU per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 10 of 40 CFR Part 60 Appendix A.

i. Emission Limitation:

0.90 ton of CO per year (furnace stack).



Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emission unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.206 pound of CO per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

j. Emission Limitation:

0.245 pound of NO_x per hour (furnace stack).

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-1 dated 7/98, as follows: divide the emission factor of 100 pounds of NO_x emissions per million standard cubic feet by a heating value of 1020 Btu per standard cubic foot and multiply by the maximum heat input capacity of 2.5 MMBTU per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 7 of 40 CFR Part 60 Appendix A.

k. Emission Limitation:

1.07 tons of NO_x per year (furnace stack).

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emission unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.245 pound of NO_x per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

l. Emission Limitation:

0.005 pound of PE per hour (furnace stack).

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 1.9 pounds of PE per million standard cubic feet by a heating value of 1020 Btu per standard cubic foot and multiply by the maximum heat input capacity of 2.5 MMBTU per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 5 of 40



CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

m. Emission Limitation:

0.022 ton of PE per year (furnace stack).

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emission unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.005 pound of PE per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

n. Emission Limitation:

0.001 pound of SO₂ per hour (furnace stack).

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 0.6 pound of SO₂ emissions per million standard cubic feet by a heating value of 1020 Btu per standard cubic foot and multiply by the maximum heat input capacity of 2.5 MMBTU per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 6 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-18-04.

o. Emission Limitation:

0.004 ton of SO₂ per year (furnace stack).

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emission unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.001 pound of SO₂ per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

p. Emission Limitation:

0.013 pound of VOC per hour (furnace stack).

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air



Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 5.5 pounds of VOC emissions per million standard cubic feet by a heating value of 1020 Btu per standard cubic foot and multiply by the maximum heat input capacity of 2.5 MMBTU per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 25 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10.

q. Emission Limitation:

0.06 ton of VOC per year (furnace stack).

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emission unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.013 pound of VOC per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 180 days prior to permit expiration.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) and the grains per dry standard cubic foot loading for lead emissions.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulate, Method 5 of 40 CFR Part 60, Appendix A. For opacity, Method 9 of 40 CFR Part 60, Appendix A. For lead, Method 12 of 40 CFR Part 60, Appendix A. The sampling time and sample volume for each run shall be at least 60 minutes and 30 dscf. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while all of the emissions units served by the stack are operating at or near their maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services.
- e. The permittee shall collect, record, and include in the test report the static pressure drop across the oil mist filter during testing.
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be



conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

- g. Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

- (1) None.



7. P062, Sovema oxide mill #4

Operations, Property and/or Equipment Description:

Sovema Oxide Mill 4

- 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. None.
- b) **Applicable Emissions Limitations and/or Control Requirements**
 - (1) The specific operations(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. 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(F) (PTI 04-01454, modified 1/8/2008)	Particulate emissions (PE) shall not exceed 0.026 lb/hr and 0.11 ton per year for all surge hoppers comprising the paste mixing facility; and see b)(2)a. Particulate matter emissions of 10 microns or less (PM10) shall not exceed 0.026 lb/hr and 0.11 ton per year as a rolling, 12-month summation for all surge hoppers comprising the paste mixing facility; and see b)(2)c. The emissions of lead shall not exceed 0.006 lb/hr and 0.03 ton per year as a rolling, 12-month summation for all surge hoppers comprising the paste mixing facility; and see b)(2)c.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	40 CFR Part 60, Subpart KK	0.01 lb/ton of lead for all the emission units comprising the lead oxide manufacturing facility; and see b)(2)a. Visible particulate emissions, from all stacks serving this emissions unit, shall not exceed 0% opacity as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)b.
d.	OAC rule 3745-17-11(B)(1)	See b)(2)b.
e.	OAC rule 3745-114-01	Exempt, by authority of ORC 3704.03(F)(4)(e)

(2) Additional Terms and Conditions

- a. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
- b. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(F).
- c. The hourly and annual emission limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.

c) Operational Restrictions

- (1) The permittee shall operate and maintain a two-stage HEPA filter system. The pressure drop across the first bank of HEPA filters shall be maintained within the range of 1 to 8 inches of water column (WC) while the emissions unit is in operation except after replacement or complete cleaning of the HEPA filters at which time a pressure drop of less than 1 inch WC shall be acceptable.

Operation of the HEPA filtration system at a pressure drop(s) outside the range specified above does not by itself constitute a violation of the mass emissions limitation and/or visible emission limitation, but rather serves as an indicator of the need for additional stack testing and/or further investigation to establish compliance with the emission limitations.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain a monitoring device capable of accurately measuring the pressure drop across these control devices during all times



when the process is operating. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

- (2) The permittee shall monitor and record the pressure drop across these control devices a minimum of once per day when the units are in operation. If a pressure drop is observed outside of the allowable ranges, the permittee shall record the incident and take immediate corrective actions. The permittee shall also record the corrective actions taken.
- (3) The permittee shall perform semiannual inspections and maintenance to ensure proper performance of each HEPA filter. These include inspection of structural and filter integrity. The permittee shall record the results of these inspections.

e) Reporting Requirements

- (1) 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 b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.01 lb/ton of lead for all the emission units comprising the lead oxide manufacturing facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent stack test (0.00019 lb/ton, tested 1/14/1998 – P040; 0.00031 lb/ton, tested 1/14/98 – P044; 0.00009 lb/ton, tested 1/14/98 – P045; 0.000641 lb/ton, tested 8/8/07 – P062; 0.000016 lb/ton, tested 7/31/2014 – P094; 0.000013 lb/ton, tested 7/29/2014 – P095).

If required, the permittee shall demonstrate compliance with this emission limitation thru stack testing of all affected sources (emissions units P040, P044, P045, P062, P094, and P095) in accordance with 40 CFR Part 60, Sections 60.8 and 60.374 using methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A.

b. Emission Limitation:

0 percent opacity, as a 6-minute average



Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent visible emissions test (0% opacity, tested August 8, 2007).

If required, the permittee shall demonstrate compliance with this emission limitation through visible emission observations performed in accordance with 40 CFR Part 60, Section 60.374 using methods and procedures specified in Method 9 of 40 CFR Part 60, Appendix A and Section 60.11.

c. Emission Limitation:

PE shall not exceed 0.026 pound per hour.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance shall be demonstrated based on the most recent stack test (0.0034796 lb/hr, tested August 8, 2007).

If required, the permittee shall demonstrate compliance with this emissions limitation through emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

d. Emission Limitation:

PE shall not exceed 0.11 ton per year.

Applicable Compliance Method:

The 0.11 tpy emission limitation was developed by multiplying the 0.026 lb/hr emission rate by a maximum operating schedule of 8,760 hours/year and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

e. Emission Limitation:

The emissions of PM10 shall not exceed 0.026 pound per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation through emission testing performed in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.



f. Emission Limitation:

The emissions of PM10 shall not exceed 0.11 ton per year as a rolling, 12-month summation.

Applicable Compliance Method:

The 0.11 tpy emission limitation was developed by multiplying the 0.026 lb/hr emission rate by a maximum operating schedule of 8,760 hours/year and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

g. Emission Limitation:

Lead emissions shall not exceed 0.006 pound per hour.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance shall be demonstrated based on the most recent stack test (0.0004085 lb/hr, tested August 8, 2007).

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with 40 CFR Part 60, Sections 60.8 and 60.374 using methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

h. Emission Limitation:

Lead emissions shall not exceed 0.03 ton per year as a rolling, 12-month summation.

Applicable Compliance Method:

The 0.03 tpy emission limitation was developed by multiplying the 0.006 lb/hr emission rate by a maximum operating schedule of 8,760 hours/year and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 180 days prior to permit expiration. Additional testing may be required consistent with Ohio EPA DAPC Engineering Guide #16 or by request of the Ohio EPA or Toledo Division of Environmental Services.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for lead emissions.



- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulate, Method 5 of 40 CFR Part 60, Appendix A. For opacity, Method 9 of 40 CFR Part 60, Appendix A. For lead, Method 12 of 40 CFR Part 60, Appendix A. The sampling time and sample volume for each run shall be at least 60 minutes and 30 dscf. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

Compliance with the 0.01 pound per ton of lead limitation for all the emission units comprising the lead oxide manufacturing facility may be demonstrated as a summation of the most stack test results (in pounds per ton) of emissions units P040, P044, P045, P062, P094 and P095. The permittee shall update and report the emissions for all of these emissions units to demonstrate compliance with the lb lead/ton lead feed emissions rate.

- d. The test(s) shall be conducted while all of the emissions units served by the stack are operating at or near their maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services.
- e. The permittee shall collect, record, and include in the test report the static pressure drop across the HEPA filter system during testing.
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- g. Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

- (1) None.



8. Emissions Unit Group -COS Lines: P029, P030, P031, P032, P033, P034,

EU ID	Operations, Property and/or Equipment Description
P029	Cast on Strap Line No. 0 with a maximum production rate of 156 batteries per hour controlled by a 2-stage HEPA filtration system (RACDO No.1)
P030	Cast On Strap Line No. 1 with a maximum production rate of 156 batteries per hour and controlled by a 2-stage HEPA filtration system (RADCO No. 2)
P031	Cast On Strap Line No. 2 with a maximum production rate of 156 batteries per hour and controlled by a 2-stage HEPA filtration system (RADCO No. 3)
P032	Cast On Strap Line No. 3 with a maximum production rate of 156 batteries per hour and controlled by a 2-stage HEPA filtration system (RADCO No. 4)
P033	Cast On Strap Line No. 4 with a maximum production rate of 156 batteries per hour and controlled by a 2-stage HEPA filtration system (RADCO No. 5)
P034	Cast On Strap Line No. 5 with a maximum production rate of 156 batteries per hour and controlled by a 2-stage HEPA filtration system (RADCO No. 6)

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. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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) (PTI 04-943, modified 11/1/2007)	Particulate emissions (PE) shall not exceed 0.0176 pound per hour or 0.077 ton per year. Lead emissions shall not exceed 0.0064 pound per hour or 0.028 ton per year. See b)(2)a.
b.	40 CFR Part 60, Subpart KK	Lead emissions shall not exceed



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		0.000437 gr/dscf; and see b)(2)b. and b)(2)c.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)d.
d.	OAC rule 3745-17-11(B)(1)	See b)(2)e.

(2) Additional Terms and Conditions

- a. The requirements of this rule also include compliance with the requirements of 40 CFR 60, Subpart KK.
- b. Visible particulate emissions, from the stack serving this emissions unit, shall not exceed 0% opacity as a 6-minute average.
- c. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
- d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 60, Subpart KK.
- e. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

- (1) The permittee shall operate and maintain a two-stage HEPA filter system. The pressure drop across the first bank of HEPA filters shall not exceed 3 inches of water column (WC) while the emissions unit is in operation. The pressure drop across the second bank of HEPA filters shall be between 1 to 3.5 inches WC except after replacement or complete cleaning of the HEPA filters at which time a pressure drop of less than 1 inch WC shall be acceptable.

Operation of a HEPA filtration system at a pressure drop(s) outside the range specified above does not by itself constitute a violation of the mass emission limitation and/or visible emission limitation, but rather serves as an indicator of the need for additional stack testing and/or further investigation to establish compliance with the emission limitations.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain a monitoring device capable of accurately measuring the pressure drop across this control device during all times when the process is operating. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).



- (2) The permittee shall monitor and record the pressure drop across this control device a minimum of once per day when the units are in operation. If a pressure drop is observed outside of the allowable ranges, the permittee shall record the incident and take immediate corrective actions. The permittee shall also record the corrective actions taken.
- (3) The permittee shall perform semiannual inspections and maintenance to ensure proper performance of each HEPA filter. These include inspection of structural and filter integrity. The permittee shall record the results of these inspections.

e) Reporting Requirements

- (1) 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 b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Lead emissions shall not exceed 0.000437 gr/dscfm.

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent stack test (0.000008 gr/dscf, tested 9/1/1998 – P029, 0.0000451 gr/dscf, tested 12/13/1995 – P030, 0.0000016 gr/dscf, tested 1/9/2009 – P031, 0.000012 gr/dscf, tested 1/8/2009 – P032, 0.000002 gr/dscf, tested 1/15/1998 – P033-P034).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Sections 60.8 and 60.374 using methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A.

b. Emission Limitation:

0 percent opacity, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent visible emissions test (0% opacity, P029 – tested 9/1/1998; P030 – tested 1/9/2009; P031 – tested 1/9/09; P032 – tested 1/8/2009; P033-P034 – tested 1/15/1998)

If required, the permittee shall demonstrate compliance with this emission limitation through visible emission observations performed in accordance with 40



CFR Part 60, Section 60.374 using methods and procedures specified in Method 9 of 40 CFR Part 60, Appendix A and Section 60.11.

c. Emission Limitation:

PE shall not exceed 0.0176 pound per hour.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance shall be demonstrated based on the most recent stack test (0.00076 lb/hr, tested 9/1/1998 – P029, 0.00278 lb/hr, tested 12/13/1995 – P030, 0.01 lb/hr, tested 1/9/2009 – P031, 0.01 lb/hr, tested 1/8/2009 – P032, 0.006 lb/hr, tested 1/15/1998 – P033-P034).

If required, the permittee shall demonstrate compliance with this emissions limitation through emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

d. Emission Limitation:

PE shall not exceed 0.077 ton per year.

Applicable Compliance Method:

The 0.077 TPY emission limitation was developed by multiplying the 0.0176 lb/hour emission rate by a maximum operating schedule of 8,760 hours/year and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

e. Emission Limitation:

Lead emissions shall not exceed 0.0064 pound per hour.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance shall be demonstrated based on the most recent stack test (0.00076 lb/hr, tested 9/1/1998 – P029, 0.00278 lb/hr, tested 12/13/1995 – P030, 0.00014 lb/hr, tested 1/9/2009 – P031, 0.0014 lb/hr, tested 1/8/2009 – P032, 0.006 lb/hr, tested 1/15/1998 – P033-P034).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A and Section 60.8.



f. Emission Limitation:

Lead emissions shall not exceed 0.028 ton per year.

Applicable Compliance Method:

The 0.028 TPY emission limitation was developed by multiplying the 0.0064 lb/hour emission rate by a maximum operating schedule of 8,760 hours/year and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing on RADCO #7-12 shall be conducted within 180 days of permit expiration. Additional testing may be required consistent with Ohio EPA DAPC Engineering Guide #16 or by request of the Ohio EPA or Toledo Division of Environmental Services.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) and the grains per dry standard cubic foot loading for lead emissions. This emissions testing shall also demonstrate compliance with the allowable pound of lead per hour emissions limit.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulate, Method 5 of 40 CFR Part 60, Appendix A. For opacity, Method 9 of 40 CFR Part 60, Appendix A. For lead, Method 12 of 40 CFR Part 60, Appendix A. The sampling time and sample volume for each run shall be at least 60 minutes and 30 dscf. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while all of the emissions units served by this HEPA Filtration Unit are operating at or near their maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services.
 - e. The permittee shall collect, record, and include in the test report the static pressure drop across the HEPA filter system during testing.
 - f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).



- g. Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

- (1) None.



9. Emissions Unit Group -Pasting Lines: P058, P059, P060, P061,

EU ID	Operations, Property and/or Equipment Description
P058	Pasting line #1 comprised of a paste mixer, paster, pasting oven, and plate collector (Paster and plate collector stack 48, RADCO #11) (Paste mixer and 1.2 mmBtu direct-fired pasting oven stack 189, shared by pasting line #2 AAF baghouse #2)
P059	Pasting line #2 comprised of a paste mixer, paster, pasting oven, and plate collector (Paster and plate collector stack 49, RADCO #10) (Paste mixer and 1.2 mmBtu direct-fired pasting oven stack 189, shared by pasting line #1 AAF baghouse #2)
P060	Pasting line #3 comprised of a paste mixer, paster, pasting oven, and plate collector (Paster and plate collector stack 50, RADCO #9) (Paste mixer and 1.2 mmBtu direct-fired pasting oven stack 190, shared by pasting line #4 AAF baghouse #1)
P061	Pasting line #4 comprised of a paste mixer, paster, pasting oven, and plate collector (Paster and plate collector stack 51, RADCO #8) (Paste mixer and 1.2 mmBtu direct-fired pasting oven stack 190, shared by pasting line #3 AAF baghouse #1)

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. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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
Paster and plate collector		
a.	OAC rule 3745-31-05(A)(3) (PTI 04-01366, issued 6/22/2004 and modified 11/1/2007)	0.00182 pound of particulate emissions (PE) per hour, 0.008 ton of PE per year; 0.0011 pound of lead per hour, 0.00482 ton lead per year; See b)(2)c.
b.	40 CFR Part 60, Subpart KK	0.000437 gr/dscf of lead; and see b)(2)a.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)b.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-11(B)(1)	See b)(2)e.
Paste mixer and 1.2 mmBtu direct-fired pasting oven		
e.	OAC rule 3745-31-05(A)(3) (PTI 04-01366, issued 6/22/2004 and modified 11/1/2007)	0.01278 pound of PE per hour, 0.056 ton of PE per year; 0.00126 pound of lead per hour, 0.00552 ton of lead per year; see b)(2)c. 0.1 lb/hr Carbon Monoxide (CO), 0.5 tpy CO; 0.15 lb/hr Nitrogen Oxides (NOx), 0.7 tpy NOx; 0.01 lb/hr Sulfur Dioxide (SO2), 0.05 tpy SO2; 0.01 lb/hr Volatile Organics (VOC), 0.05 tpy VOC; see b)(2)d.
f.	40 CFR Part 60, Subpart KK	0.000437 gr/dscf of lead; and see b)(2)a.
g.	OAC rule 3745-17-07(A)(1)	See b)(2)b.
h.	OAC rule 3745-17-11(B)(1)	See b)(2)e.
i.	OAC rule 3745-18-06(E)	See b)(2)e.

(2) Additional Terms and Conditions

- a. Visible particulate emissions, from the stack(s) serving this emissions unit, shall not exceed 0% opacity as a 6-minute average.
- b. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 60, Subpart KK.
- c. The requirements of this rule also include compliance with the requirements of 40 CFR 60, Subpart KK.
- d. The hourly and annual emission limitations for combustion products (CO, NOx, SO2, & VOC) were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping, and reporting requirements to ensure compliance with these limitations.
- e. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)..

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.
- (2) The permittee shall operate and maintain a two-stage HEPA filter system for the paster and plate collector emissions. The pressure drop across the first bank of HEPA filters shall not exceed 3 inches of water column (WC) while the emissions unit is in operation. The pressure drop across the second bank of HEPA filters shall be between 1 to 3.5



inches WC except after replacement or complete cleaning of the HEPA filters at which time a pressure drop of less than 1 inch WC shall be acceptable.

Operation of the HEPA filtration system at a pressure drop(s) outside the range specified above does not by itself constitute a violation of the mass emissions limitation and/or visible emission limitation, but rather serves as an indicator of the need for additional stack testing and/or further investigation to establish compliance with the emission limitations.

- (3) To ensure the baghouse is operated according to the manufacturer's specifications and to maintain compliance with the allowable particulate emission rate for the paste mixer and pasting oven, a pressure drop across the baghouse between 0.25 to 2.5 inches of water shall be maintained at all times except after replacement or complete cleaning of the filters at which time a pressure drop of less than 0.25 inch water column shall be acceptable.

d) **Monitoring and/or Recordkeeping Requirements**

- (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) The permittee shall properly install, operate, and maintain a monitoring device capable of accurately measuring the pressure drop(s) across these control device(s) during all times when the process is operating. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
- (3) The permittee shall monitor and record the pressure drop(s) across these control devices a minimum of once per day when the units are in operation. If a pressure drop is observed outside of the allowable ranges, the permittee shall record the incident and take immediate corrective actions. The permittee shall also record the corrective actions taken.
- (4) The permittee shall perform semiannual inspections and maintenance to ensure proper performance of each fabric filter and each HEPA filter. These include inspection of structural and filter integrity. The permittee shall record the results of these inspections.

e) **Reporting Requirements**

- (1) 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 b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.000437 gr/dscf of lead

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent stack test (P058 – stacks 48 & 189: 0.0000109 gr/dscf, tested 10/20/2004; P059 – stacks 49 & 189: 0.0000109 gr/dscf, tested 10/20/2004; P060 – stacks 50 & 190: 0.000008 gr/dscf, tested 10/20/2004; P061 - stacks 51 & 190: 0.000008 gr/dscf, tested 10/20/2004).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60 Sections 60.8 and 60.374 using methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A. The sampling time and sample volume for each run shall be at least 60 minutes and 30 dscf.

b. Emission Limitation:

0 percent opacity

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent visible emissions test (P058 – stacks 48 & 189: 0% opacity, tested 10/20/2004; P059 – stacks 49 & 189: 0% opacity, tested 10/20/2004; P060 – stacks 50 & 190: 0% opacity, tested 10/20/2004; P061 – stacks 51 & 190: 0% opacity, tested 10/20/2004).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60 Section 60.374 using methods and procedures specified in Method 9 of 40 CFR Part 60, Appendix A and Section 60.11. The opacity numbers shall be rounded of to the nearest whole percentage.

c. Emission Limitation:

0.00182 pound of PE per hour

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance shall be demonstrated based on the most recent stack test (P058 – stack 48: 0.0003 lb/hr, tested 10/20/2004; P059 – stack 49: 0.0003 lb/hr, tested 10/20/2004; P060 – stack 50: 0.0002 lb/hr, tested 10/20/2004; P061 – stack 51: 0.0002 lb/hr, tested 10/20/2004).



If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1 through 5 of 40 CFR Part 60, Appendix A and the procedures in OAC rule 3745-17-03(B)(10).

d. Emission Limitation:

0.008 ton of PE per year

Applicable Compliance Method:

The 0.008 tpy emission limitation was developed by multiplying the 0.00182 lb/hour emission rate by a maximum operating schedule of 8760 hours/year and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

e. Emission Limitation:

0.0011 pound of lead per hour

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance shall be demonstrated based on the most recent stack test (P058 – Stack 48: 0.00076 lb/hr, tested 9/1/1998; P059 – stack 49: 0.00076 lb/hr, tested 9/1/2004; P060 – stack 50: 0.000482 lb/hr, tested 10/20/2004; P061 – stack 51: 0.000482 lb/hr, tested 10/20/2004).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A.

f. Emission Limitation:

0.00482 ton of lead per year

Applicable Compliance Method:

The 0.00482 tpy emission limitation was developed by multiplying the 0.0011 lb/hour emission rate by a maximum operating schedule of 8760 hours/year and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

g. Emission Limitation:

0.01278 pound of PE per hour

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance shall be demonstrated based on the most recent



stack test (P058, P059 – stack 189: 0.002 lb/hr, tested 1/13/1998; P060, P061 – stack 190: 0.002 lb/hr, tested 1/13/1998).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1 through 5 of 40 CFR Part 60, Appendix A and the procedures in OAC rule 3745-17-03(B)(10).

h. Emission Limitation:

0.056 ton of PE per year

Applicable Compliance Method:

The 0.056 tpy emission limitation was developed by multiplying the 0.1278 lb/hour emission rate by a maximum operating schedule of 8760 hours/year and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

i. Emission Limitation:

0.00126 pound of lead per hour

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance shall be demonstrated based on the most recent stack test (P058, P059 – stack 189: 0.00030 lb/hr, tested 9/2/1998; P060, P061 – stack 190: 0.0007 lb/hr, tested 1/13/1998).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A.

j. Emission Limitation:

0.00552 ton of lead per year

Applicable Compliance Method:

The 0.00552 tpy emission limitation was developed by multiplying the 0.00126 lb/hour emission rate by a maximum operating schedule of 8760 hours/year and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

k. Emission Limitation:

0.1 pound of CO per hour



Applicable Compliance Method:

Compliance may be demonstrated through calculations based on emissions factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2, dated 7/98, as follows: divide the emission factor of 84 pounds of CO emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply the result by the maximum heat input capacity of 1.2 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and Method 10 of 40 CFR Part 60 Appendix A.

I. Emission Limitation:

0.5 ton of CO per year

Applicable Compliance Method:

The 0.5 tpy emission limitation was developed by multiplying the 0.1 lb/hour emission rate by a maximum operating schedule of 8,760 hours/year and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

m. Emission Limitation:

0.15 pound of NOx per hour

Applicable Compliance Method:

Compliance may be determined through calculations based on emissions factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2, dated 7/98, as follows: divide the emission factor of 100 pounds of NOx emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply the result by the maximum heat input capacity of 1.2 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and Method 7 of 40 CFR Part 60 Appendix A.

n. Emission Limitation:

0.7 ton of NOx per year

Applicable Compliance Method:

The 0.7 tpy emission limitation was developed by multiplying the 0.15 lb/hour emission rate by a maximum operating schedule of 8,760 hours/year and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.



o. Emission Limitation:

0.01 pound of SO₂ per hour

Applicable Compliance Method:

Compliance may be determined through calculations based on emissions factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2, dated 7/98, as follows: divide the emission factor of 0.6 pound of SO_x emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply the result by the maximum heat input capacity of 1.2 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and Method 6 of 40 CFR Part 60 Appendix A.

p. Emission Limitation:

0.05 ton of SO₂ per year

Applicable Compliance Method:

The 0.05 tpy emission limitation was developed by multiplying the 0.01 lb/hour emission rate by a maximum operating schedule of 8,760 hours/year and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

q. Emission Limitation:

0.01 pound of VOC per hour

Applicable Compliance Method:

Compliance may be determined through calculations based on emissions factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2, dated 7/98, as follows: divide the emission factor of 5.5 pounds of VOC emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply the result by the maximum heat input capacity of 1.2 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and Method 25 of 40 CFR Part 60 Appendix A.

r. Emission Limitation:

0.05 ton of VOC per year



Applicable Compliance Method:

The 0.05 tpy emission limitation was developed by multiplying the 0.01 lb/hour emission rate by a maximum operating schedule of 8,760 hours/year and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing on RADCO #7-12 shall be conducted within 180 days of permit expiration. Additional testing will be required consistent with Ohio EPA DAPC Engineering Guide #16 or by request of the Ohio EPA or Toledo Division of Environmental Services.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) and the grains per dry standard cubic foot loading for lead emissions. This emissions testing shall also demonstrate compliance with the allowable pound of lead per hour emissions limit.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulate, Method 5 of 40 CFR Part 60, Appendix A. For opacity, Method 9 of 40 CFR Part 60, Appendix A. For lead, Method 12 of 40 CFR Part 60, Appendix A. The sampling time and sample volume for each run shall be at least 60 minutes and 30 dscf. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while all of the emissions units served by this HEPA Filtration Unit (stack 48) are operating at or near their maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services.

The test(s) shall be conducted while all of the emissions units served by stack 189 are operating at or near their maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services.
 - e. The permittee shall collect, record, and include in the test report the static pressure drop across the HEPA filter system during testing.
 - f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
 - g. Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and



information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

- (1) None.



10. Emissions Unit Group - Sovema Oxide Mills 2-3: P044, P045,

EU ID	Operations, Property and/or Equipment Description
P044	Sovema Ball Mill No. 2 controlled by tehSovema 2 baghouse followed by a HEPA filter and an oxide storage tank controlled by a Cyclonic baghouse followed by a HEPA filter
P045	Sovema Ball Mill No. 3 controlled by Sovema 3 baghouse followed by a HEPA filter and Oxide Storage Tank controlled by the a Cyclonic baghouse followed by a HEPA filter

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. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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) (PTI 04-01047, modified 11/6/2007)	Particulate emissions (PE) shall not exceed 0.20 lb/hr and 0.88 ton per year; Lead emissions shall not exceed 0.01 lb/hr and 0.05 ton per year; and see b)(2)a.
b.	40 CFR Part 60, Subpart KK	0.01 lb lead/ton of lead feed for all the emission units comprising the lead oxide manufacturing facility; and see b)(2)b. Visible particulate emissions, from all stacks serving this emissions unit, shall not exceed 0% opacity as a 6-minute average.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)c.
d.	OAC rule 3745-17-11(B)(1)	See b)(2)d.



(2) Additional Terms and Conditions

- a. The requirements of this rule also include compliance with the requirements of 40 CFR 60, Subpart KK.
- b. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
- c. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 60, Subpart KK.
- d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05.

c) Operational Restrictions

- (1) The permittee shall operate and maintain a two-stage HEPA filter system. The pressure drop across the first bank of HEPA filters shall not exceed 3 inches of water column (WC) while the emissions unit is in operation. The pressure drop across the second bank of HEPA filters shall be between 1 to 3.5 inches WC [except after replacement or complete cleaning of the HEPA filters] at which time a pressure drop of less than 1 inch WC shall be acceptable.

Operation of the HEPA filtration system at a pressure drop(s) outside the range specified above does not by itself constitute a violation of the mass emissions limitation and/or visible emission limitation, but rather serves as an indicator of the need for additional stack testing and/or further investigation to establish compliance with the emission limitations.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain a monitoring device capable of accurately measuring the pressure drop across this control device during all times when the process is operating. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
- (2) The permittee shall monitor and record the pressure drop across this control device a minimum of once per day when the units are in operation. If a pressure drop is observed outside of the allowable ranges, the permittee shall record the incident and take immediate corrective actions. The permittee shall also record the corrective actions taken.
- (3) The permittee shall perform semiannual inspections and maintenance to ensure proper performance of each HEPA filter. These include inspection of structural and filter integrity. The permittee shall record the results of these inspections.



e) Reporting Requirements

- (1) 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 b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.01 lb lead/ton of lead feed for all the emission units comprising the lead oxide manufacturing facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent stack test (0.00019 lb/ton, tested 1/14/1998 – P040; 0.00031 lb/ton, tested 1/14/98 – P044; 0.00009 lb/ton, tested 1/14/98 – P045; 0.000641 lb/ton, tested 8/8/07 – P062; 0.000016lb/ton, tested 7/31/2014 – P094; 0.000013 lb/ton, tested 7/29/2014 – P095).

If required, the permittee shall demonstrate compliance with this emission limitation thru stack testing of all affected sources (emissions units P040, P044, P045, P062, P094, and P095) in accordance with 40 CFR Part 60, Sections 60.8 and 60.374 using methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A.

b. Emission Limitation:

0 percent opacity, as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent visible emissions test (0% opacity, tested 1/14/1998).

If required, the permittee shall demonstrate compliance with this emission limitation through visible emission observations performed in accordance with 40 CFR Part 60, Section 60.374 using methods and procedures specified in Method 9 of 40 CFR Part 60, Appendix A and Section 60.11.

c. Emission Limitation:

PE shall not exceed 0.20 pound per hour for the Sovema Ball Mill.



Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance shall be demonstrated based on the most recent stack test (0.01 lb/hr, tested 1/14/1998).

If required, the permittee shall demonstrate compliance with this emissions limitation through emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

d. Emission Limitation:

PE shall not exceed 0.88 ton per year for the Sovema Ball Mill.

Applicable Compliance Method:

The 0.88 tpy emission limitation was developed by multiplying the 0.20 lb/hr emission rate by a maximum operating schedule of 8,760 hours/year and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

e. Emission Limitation:

Lead emissions shall not exceed 0.01 pound per hour from the Sovema Ball Mill.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance shall be demonstrated based on the most recent stack test (0.00031 lb/hr, tested 1/14/1998).

If required, the permittee shall demonstrate compliance with this emission limitation thru stack testing of all affected sources (emissions units P040, P044, P045, P062, P094, and P095) in accordance with 40 CFR Part 60, Sections 60.8 and 60.374 using methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A.

f. Emission Limitation:

Lead emissions shall not exceed 0.05 ton per year from the Sovema Ball Mill.

Applicable Compliance Method:

The 0.05 tpy emission limitation was developed by multiplying the 0.01 lb/hr emission rate by a maximum operating schedule of 8,760 hours/year and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.



- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 180 days prior to permit expiration.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for lead emissions.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulate, Method 5 of 40 CFR Part 60, Appendix A. For opacity, Method 9 of 40 CFR Part 60, Appendix A. For lead, Method 12 of 40 CFR Part 60, Appendix A. The sampling time and sample volume for each run shall be at least 60 minutes and 30 dscf. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

Compliance with the 0.01 pound per ton of lead limitation for all the emission units comprising the lead oxide manufacturing facility may be demonstrated as a summation of the most stack test results (in pounds per ton) of emissions units P040, P044, P045, P062, P094 and P095. The permittee shall update and report the emissions for all of these emissions units to demonstrate compliance with the lb lead/ton lead feed emissions rate.
 - d. The test(s) shall be conducted while all of the emissions units served by the stack are operating at or near their maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services.
 - e. The permittee shall collect, record, and include in the test report the static pressure drop across the HEPA filter system during testing.
 - f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
 - g. Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
 - h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the



Final Permit-to-Install and Operate
JOHNSON CONTROL BATTERY GROUP INC.
Permit Number: P0118674
Facility ID: 0448002011
Effective Date: 5/12/2015

written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

- g) Miscellaneous Requirements
 - (1) None.



11. Emissions Unit Group -Trim Dry Ovens: P035, P037,

EU ID	Operations, Property and/or Equipment Description
P035	Trim Dry Oven, direct-fired infrared 0.15 mmBtu/hr oven with no controls and a design maximum production rate of 1,200 lbs/hr of lead trim pieces.
P037	Trim Dry Oven, direct-fired infrared 0.15 mmBtu/hr oven with no controls and a design maximum production rate of 1,200 lbs/hr of lead trim pieces.

- 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. None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operations(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. 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) (PTI 04-944, modified 11/1/2007)	Particulate emissions (PE) shall not exceed 0.077 pound per hour and 0.34 ton per year; Lead emissions shall not exceed 0.00022 pound per hour and 0.00096 ton per year; Carbon monoxide (CO) emissions shall not exceed 0.01 pound per hour and 0.05 ton per year; Nitrogen oxide (NOx) emissions shall not exceed 0.014 pound per hour and 0.063 ton per year; Volatile organic compounds (VOC) emissions shall not exceed 0.052 pound per hour and 0.22 ton per year; See b)(2)a. and b)(2)b.
b.	40 CFR Part 60, Subpart KK	0.000437 gr/dscf of lead; and see b)(2)c and b)(2)d.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)e.
d.	OAC rule 3745-17-11(B)(1)	See b)(2)g.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-18-06(B)	Exemption, see b)(2)f.

(2) Additional Terms and Conditions

- a. The hourly and annual emission limitations for combustion products (CO, NOx, SO2, & VOC) were established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping, reporting requirements and/or testing requirements to ensure compliance with these limitations.
 - b. The requirements of this rule also include compliance with the requirements of 40 CFR 60, Subpart KK.
 - c. Visible particulate emissions, from the stack(s) serving this emissions unit, shall not exceed 0% opacity as a 6-minute average.
 - d. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
 - e. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 60, Subpart KK.
 - f. This emissions unit is exempt from the requirements of OAC rule 3745-18-06(D), (F), and (G).
 - g. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- c) Operational Restrictions
- (1) The permittee shall burn only natural gas in this emissions unit.
- d) Monitoring and/or Recordkeeping Requirements
- (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- e) Reporting Requirements
- (1) 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 b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.000437 gr/dscf of lead.

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent stack test (0.000028 gr/dscf. tested 1/9/2009 – P035 and 0.000028 gr/dscf tested 1/8/2009 – P037).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60 Sections 60.8 and 60.374 using methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A. The sampling time and sample volume for each run shall be at least 60 minutes and 30 dscf.

b. Emission Limitation:

0 percent opacity, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent visible emissions test (0% opacity, tested 1/9/2009 – P035 and 0% opacity, tested 1/8/09 – P037).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60 Section 60.374 using methods and procedures specified in Method 9 of 40 CFR Part 60, Appendix A and Section 60.11.

c. Emission Limitation:

Particulate emissions (PE) shall not exceed 0.077 pound per hour.

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 1.9 pounds of PE per million standard cubic feet by a heating value of 1020 Btu per standard cubic foot and multiply by the maximum heat input capacity of 0.15 MMBTU per hour.



If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1 through 5 of 40 CFR Part 60, Appendix A and the procedures in OAC rule 3745-17-03(B)(10).

d. Emission Limitation:

PE shall not exceed 0.34 ton per year.

Applicable Compliance Method:

The 0.34 tpy emission limitation was developed by multiplying the 0.077 lb/hour emission rate by a maximum operating schedule of 8760 hours/year and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

e. Emission Limitation:

Lead emissions shall not exceed 0.00022 pound per hour.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance shall be demonstrated based on the most recent stack test (0.000031 lb/hr, tested 1/9/2009 – P035 and 0.000046 lb/hr tested 1/8/2009 – P037).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Method 12 of 40 CFR Part 60, Appendix A.

f. Emission Limitation:

Lead emissions shall not exceed 0.00096 ton per year.

Applicable Compliance Method:

The 0.00096 tpy emission limitation was developed by multiplying the 0.00022 lb/hour emission rate by a maximum operating schedule of 8760 hours/year and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

g. Emission Limitation:

The emissions of CO shall not exceed 0.01 pound per hour.

Applicable Compliance Method:

Compliance may be demonstrated through calculations based on emissions factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2, dated 7/98, as follows: divide the



emission factor of 84 pounds of CO emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply the result by the maximum heat input capacity of 0.15 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

h. Emission Limitation:

The emissions of CO shall not exceed 0.05 ton per year.

Applicable Compliance Method:

The 0.05 TPY emission limitation was developed by multiplying the 0.01 lb/hour emission rate by a maximum operating schedule of 8,760 hours/year and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

i. Emission Limitation:

The emissions of NOx shall not exceed 0.014 pound per hour.

Applicable Compliance Method:

Compliance may be determined through calculations based on emissions factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2, dated 7/98, as follows: divide the emission factor of 100 pounds of NOx emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply the result by the maximum heat input capacity of 0.15 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1 through 4 and 7E of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

j. Emission Limitation:

The emissions of NOx shall not exceed 0.063 ton per year.

Applicable Compliance Method:

The 0.063 TPY emission limitation was developed by multiplying the 0.014 lb/hour emission rate by a maximum operating schedule of 8,760 hours/year and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.



k. Emission Limitation:

The emissions of VOC shall not exceed 0.052 pound per hour.

Applicable Compliance Method:

Compliance may be determined through calculations based on emissions factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2, dated 7/98, as follows: divide the emission factor of 5.5 pounds of VOC emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply the result by the maximum heat input capacity of 0.15 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1 through 4 and 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

l. Emission Limitation:

The emissions of VOC shall not exceed 0.22 ton per year.

Applicable Compliance Method:

The 0.22 TPY emission limitation was developed by multiplying the 0.052 lb/hour emission rate by a maximum operating schedule of 8,760 hours/year and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

g) Miscellaneous Requirements

(1) None.