



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

8/20/2013

CHRIS SCHLACHTER
JOHNSON CONTROL BATTERY GROUP INC.
10300 INDUSTRIAL RD
HOLLAND, OH 43528

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0448002011
Permit Number: P0115141
Permit Type: OAC Chapter 3745-31 Modification
County: Lucas

Certified Mail

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

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/dapc/permitsurvey.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,



Michael W. Ahern, 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: P0115141
Permit Type: OAC Chapter 3745-31 Modification
Issued: 8/20/2013
Effective: 8/20/2013
Expiration: 3/20/2019



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

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Authorization

Facility ID: 0448002011
Application Number(s): M0002284
Permit Number: P0115141
Permit Description: The addition of a baghouse and HEPA filtration controls to Sovema Lead Pot 1 and Cylinder Casters 1-3 which were previously uncontrolled and an increase in burner size on Sovema lead pot 1 (P038)
Permit Type: OAC Chapter 3745-31 Modification
Permit Fee: \$200.00
Issue Date: 8/20/2013
Effective Date: 8/20/2013
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.

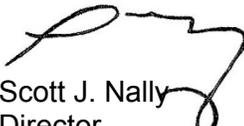
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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


Scott J. Nally
Director



Authorization (continued)

Permit Number: P0115141
Permit Description: The addition of a baghouse and HEPA filtration controls to Sovema Lead Pot 1 and Cylinder Casters 1-3 which were previously uncontrolled and an increase in burner size on Sovema lead pot 1 (P038)

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

Emissions Unit ID: P038
 Company Equipment ID: Sovema Lead pot #1
 Superseded Permit Number: P0104478
 General Permit Category and Type: Not Applicable

Emissions Unit ID: P039
 Company Equipment ID: Cylinder Caster #1
 Superseded Permit Number: P0104478
 General Permit Category and Type: Not Applicable

Group Name: cylinder casters 2 and 3

Emissions Unit ID:	P041
Company Equipment ID:	Cylinder Caster #2
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P042
Company Equipment ID:	Cylinder Caster #3
Superseded Permit Number:	P0104478
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate
JOHNSON CONTROL BATTERY GROUP INC.
Permit Number: P0115141
Facility ID: 0448002011
Effective Date: 8/20/2013

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. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. 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 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 Toledo Department of Environmental Services 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 submitting¹ 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 emissions 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.

¹ Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).



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: P0115141
Facility ID: 0448002011
Effective Date: 8/20/2013

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.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.
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: P038, P039, P041, and P042. 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: P0115141
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Effective Date: 8/20/2013

C. Emissions Unit Terms and Conditions



1. P038, Sovema Lead pot #1 with 2 mmBtu/hr burner

Operations, Property and/or Equipment Description:

Sovema Lead Pot No. 1 controlled by a 10,000 acfmbaghouse with HEPA filtration (joint baghouse with P038, P039, P041, and P042 and joint exhaust stack S/N 322 with P038, P039, P041, P042 and P096-P099)

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P038 - Lead Pot #1 - controlled by a fabric filter and HEPA filtration (S/N 322)		
a.	OAC rule 3745-31-05(A)(3) (PTI 04-1005, modified 11/6/2007)	Lead emissions shall not exceed 0.01 pound per hour and 0.05 ton per year. Particulate emissions (PE) shall not exceed 0.05 pound per hour and 0.22 ton per year. See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(F)	Combined particulate emissions from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 1.56 pounds per hour and 6.84 tons per year (S/N 322). Combined emissions of particulate matter of 10 microns or less (PM10) from the stack serving P038, P039, P041, P042



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		and P096 through P099 shall not exceed 1.56 pounds per hour and 6.84 tons per year (S/N 322). Combined emissions of lead from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 0.068 pound per hour and 0.30 ton per year (S/N 322).
c.	OAC rule 3745-17-07(A)(1)	See b)(2)d.
d.	OAC rule 3745-17-11(B)(1)	See b)(2)e.
e.	40 CFR Part 60, Subpart A (40 CFR 60.1 – 60.19)	See b)(2)f.
f.	40 CFR Part 60, Subpart KK (40 CFR 60.370 – 60.374) [In accordance with 40 CFR 60.370(b), this emissions unit is part of other lead emitting operations used in the manufacture of lead acid storage batteries at a lead acid battery manufacturing plant that has a design capacity of to produce in one day batteries containing an amount of lead equal to or greater than 6.5 tons and subject to the emissions limitations/control measures specified in this section.]	0.000437 gr/dscf of lead. [40 CFR 60.372(a)(6)] Emissions shall not exceed 0% opacity (measured according to Method 9 and rounded to the nearest whole percentage) from stack number 322. [40 CFR 60.372(a)(7)] See b)(2)g.
2.0 mmBtu/hrSovema Lead Pot 1 Natural gas burner with no controls (S/N 258)		
g.	OAC rule 3745-31-05(A)(3) as effective 11/30/01	Carbon monoxide (CO) emissions shall not exceed 0.16 pound per hour and 0.7 ton per year from the natural gas burner. Nitrogen oxides (NOx) emissions shall not exceed 0.2 pound per hour and 0.88 ton per year from the natural gas burner. PE shall not exceed 0.01 pound per hour and 0.05 ton per year from the natural gas burner. Sulfur dioxide (SO2) emissions shall not exceed 0.01 pound per hour and 0.05 ton per year from the natural gas burner.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Volatile organic compounds (VOC) emissions shall not exceed 0.01 pound per hour and 0.05 ton per year from the natural gas burner. see b)(2)h. and b)(2)i.
h.	OAC rule 3745-31-05(A)(3)(a)(ii) as effective 12/1/06	see b)(2)j.
i.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions, from each chemset curing chamber natural gas burner, shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
j.	OAC rule 3745-17-10(B)(1)	PE from the stack shall not exceed 0.020 pound per mmBtu of heat input.
k.	OAC rule 3745-18-06(A)	exemption, see b)(2)k.

(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 hourly and annual emission limitations for particulate and lead 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.
- c. The hourly and annual emission limitations were established for PTI purposes to reflect the potential to emit while controlled by a fabric filter for this emissions unit. Therefore, provided the fabric filter is used, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.
- d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR 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).
- f. 40 CFR Part 60 subpart A provides applicability provisions, definitions, and other general provisions that are pertinent to emissions units affected by 40 CFR Part 60.
- g. 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.

- h. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants emitted at less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits/control measures no longer apply.

The following terms and conditions shall become void after U.S. EPA approves the rule revision:

b)(1)g., f)(1)n. through f)(1)s., and f)(1)u. through f)(1)x.

- i. The hourly and annual CO, NO_x, PE, SO₂ and VOC emissions limits were established to reflect the potential to emit for this emissions unit while combusting natural gas. Therefore, as long as only natural gas is utilized as fuel it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these emissions limitations.
- j. This paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO, NO_x, PE, SO₂ and VOC emissions from the lead pot burner since the uncontrolled potential to emit for CO, NO_x, PE, SO₂ and VOC is less than 10 tons per year.

- k. OAC rule 3745-18-06(A) does not establish SO₂ emission limitations for the fuel burning equipment associated with this emissions unit because the emissions unit only employs natural gas as fuel. However, OAC rule 3745-18-06(A) requires that the natural gas being combusted meet certain fuel quality restrictions (a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pound per million standard cubic feet). Because the natural gas being burned in this emission unit is the standard, pipeline quality natural gas supplied to industrial, commercial, and residential users throughout the State, it is assumed that it meets the fuel quality restrictions; and no monitoring, record keeping or reporting requirements are necessary to ensure ongoing compliance with OAC rule 3745-18-06(A).

On September 1, 2003, OAC rule 3745-18-06 was revised to delete the following phrase: "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". Therefore,



this phrase is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-18-06, the requirements still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

- (1) The permittee shall operate the dry filtration system and HEPA filtration system whenever this emissions unit is in operation.
- (2) The pressure drop across the HEPA filtration system shall be maintained within the range of 0.1 to 8.0 inches of water column (WC) while the emissions unit is in operation except after replacement or complete cleaning of the filters at which time a pressure drop of less than 0.1 inch WC shall be acceptable.
- (3) The permittee shall burn only natural gas in this emissions unit.
- (4)

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain daily records that document any time periods when the dry filtration system or the HEPA filtration system was not in service when the emissions unit was in operation.
- (2) The permittee shall properly install, operate, and maintain a monitoring device capable of accurately measuring the pressure drop across the 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).
- (3) The permittee shall monitor and record the pressure drop across the control devices a minimum of once per week when the units are in operation. If a pressure drop is observed outside of the normal 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 control device. This includes inspection of structural and filter integrity. The permittee shall record the results of these inspections.

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) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency 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. It is recommended that the PER is submitted electronically through the Ohio EPA's "e-Business Center: Air Services" although PERs can be submitted via U.S. postal service or can be hand delivered.

- (2) The permittee shall submit Annual Permit Evaluation Reports (PER) that identify:
- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. any time during which the dry filtration system or the HEPA filtration system was not in service when this emissions unit was in operation;
 - ii. all days during which the pressure drop is outside of the allowable ranges;
 - iii. all days during which a fuel other than natural gas was burned in this emissions unit;
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred, the permittee shall submit a report that states that no deviations (excursions) occurred.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section 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 (0.000091 gr/dscfm, tested 1/15/1998).
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.



b. Emission Limitation:

Emissions shall not exceed 0% opacity (measured according to Method 9 and rounded to the nearest whole percentage) from the stack serving the sovema lead pot #1 (S/N 322).

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent visible emissions test (0% opacity, 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:

0.05 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 (0.012 lb/hr, tested 1/15/1998).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1 through 5, or approved alternate, of 40 CFR Part 60, Appendix A and Section 60.8 and the procedures in OAC rule 3745-17-03(B)(10).

d. Emission Limitation:

0.22 ton of PE per year.

Applicable Compliance Method:

The 0.22 TPY emission limitation was developed by multiplying the 0.05 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:

Combined particulate emissions from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 1.56 pounds per hour (S/N 322).

Applicable Compliance Method:

This emissions limitation was established to reflect the potential to emit for these emissions units by a calculation utilizing a company-supplied emission factor



(0.010 gr PE/dscf) multiplied by an exhaust gas flow rate (18,206 dscfm) and by 60 minutes per hour and then divided by 7,000 grains per pound.

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

f. Emission Limitation:

Combined PE from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 6.84 tons per year (S/N 322).

Applicable Compliance Method:

This emissions limitation was established to reflect the potential to emit for these emissions units by a calculation utilizing a company-supplied emission factor (0.010 gr PE/dscf) multiplied by an exhaust gas flow rate (18,206 dscfm) and by 60 minutes per hour and by 8,760 hours per year and then divided by 7,000 grains per pound and by 2,000 pounds per ton.

g. Emission Limitation:

Combined PM10 from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 1.56 pounds per hour (S/N 322).

Applicable Compliance Method:

This emissions limitation was established to reflect the potential to emit for these emissions units by a calculation utilizing a company-supplied emission factor (0.010 gr PM10/dscf) multiplied by an exhaust gas flow rate (18,206 dscfm) and by 60 minutes per hour and then divided by 7,000 grains per pound.

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.

h. Emission Limitation:

Combined PM10 from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 6.84 tons per year (S/N 322).

Applicable Compliance Method:

This emissions limitation was established to reflect the potential to emit for these emissions units by a calculation utilizing a company-supplied emission factor (0.010 gr PM10/dscf) multiplied by an exhaust gas flow rate (18,206 dscfm) and by 60 minutes per hour and by 8,760 hours per year and then divided by 7,000 grains per pound and by 2,000 pounds per ton.



i. Emission Limitation:

0.01 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 through calculations based on the most recent stack test (0.00009 gr/dscfm, tested 1/15/1998) as follows: multiply 0.00009 gr/dscf by 3,359 dscf/min multiplied by 60 minutes per hour and divide by 7,000 grains per pound.

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.

j. Emission Limitation:

0.05 ton of lead 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.

k. Emission Limitation:

Combined emissions of lead from the stackserving P038, P039, P041, P042 and P096 through P099 shall not exceed 0.068 pound per hour (S/N 322).

Applicable Compliance Method:

This emissions limitation was established to reflect the potential to emit for these emissions units by a calculation of the design criteria of NSPS KK emission factor (0.000437 gr Pb/dscf) multiplied by an exhaust gas flow rate (18,206 dscfm) and by 60 minutes per hour and then divided by 7,000 grains per pound.

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.

l. Emission Limitation:

Combined emissions of lead from the stackserving P038, P039, P041, P042 and P096 through P099 shall not exceed 0.30 ton per year (S/N 322).



Applicable Compliance Method:

This emissions limitation was established to reflect the potential to emit for these emissions units by a calculation of the design criteria of the NSPS KK emission factor (0.000437 gr Pb/dscf) multiplied by an exhaust gas flow rate (18,206 dscfm) and by 60 minutes per hour and by 8,760 hours per year and then divided by 7,000 grains per pound and by 2,000 pounds per ton.

m. Emission Limitation:

20 percent opacity, as a 6-minute average from the sovema lead pot #1 natural gas burner (S/N 258).

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation 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)(3).

n. Emission Limitation:

CO emissions from the sovema lead pot #1 natural gas burner shall not exceed 0.16 pound per hour (S/N 258).

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed 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 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 2.0 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.

o. Emission Limitation:

CO emissions from sovema lead pot #1 natural gas burner shall not exceed 0.7 ton per year (S/N 258).

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed based on calculations performed as follows: multiply the short term emission limitation (0.16 pound per



hour) by the maximum annual hours of operation (8,760 hours), then divide by 2,000 pounds per ton.

p. Emission Limitation:

NOx emissions from the sovema lead pot #1 natural gas burner shall not exceed 0.2 pound per hour (S/N 258).

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed 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 100 pounds of NOx emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply by the maximum heat input capacity of 2.0 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.

q. Emission Limitation:

NOx emissions from the sovema lead pot #1 natural gas burner shall not exceed 0.88 ton per year (S/N 258).

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed based on calculations performed as follows: multiply the short term emission limitation (0.2 pound per hour) by the maximum annual hours of operation (8,760 hours), then divide by 2,000 pounds per ton.

r. Emission Limitation:

PE from the sovema lead pot #1 natural gas burner shall not exceed 0.01 pound per hour (S/N 258).

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed 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 Btus per standard cubic foot and multiply by the maximum heat input capacity of 2.0 mmBtu/hr.



If required, the permittee shall demonstrate compliance with this emission 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)(9). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

s. Emission Limitation:

PE from the sovema lead pot #1 natural gas burner shall not exceed 0.05 ton per year (S/N 258).

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed based on calculations performed as follows: multiply the short term emission limitation (0.01 pound per hour) by the maximum annual hours of operation (8,760 hours), then divide by 2,000 pounds per ton.

t. Emission Limitation:

0.020 pound PE per mmBtu of heat input from the sovema lead pot #1 natural gas burner (S/N 258).

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.

u. Emission Limitation:

SO₂ emissions from sovema lead pot #1 natural gas burner shall not exceed 0.001 pound per hour (S/N 258).

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed 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 1,020 Btu per standard cubic foot and multiply by the maximum heat input capacity of 2.0 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emissions limitation using Methods 1 through 4 and 6 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-18-04(E) and (F).



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

v. Emission Limitation:

SO₂ emissions from the sovema lead pot #1 natural gas burner shall not exceed 0.01 ton per year (S/N 258).

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed based on calculations performed as follows: multiply the short term emission limitation (0.001 pound per hour) by the maximum annual hours of operation (8,760 hours), then divide by 2,000 pounds per ton.

w. Emission Limitation:

VOC emissions from the sovema lead pot #1 natural gas burner shall not exceed 0.01 pound per hour (S/N 258).

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed 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 1,020 Btu per standard cubic foot and multiply by the maximum heat input capacity of 2.0 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emissions limitation using Methods 1 through 4 and 25 or 25A of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

x. Emission Limitation:

VOC emissions from the sovema lead pot #1 natural gas burner shall not exceed 0.05 ton per year (S/N 258).

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed based on calculations performed as follows: multiply the short term emission limitation (0.01 pound per hour) by the maximum annual hours of operation (8,760 hours), then divide by 2,000 pounds per ton.



Final Permit-to-Install and Operate
JOHNSON CONTROL BATTERY GROUP INC.
Permit Number: P0115141
Facility ID: 0448002011
Effective Date: 8/20/2013

g) Miscellaneous Requirements

(1) None.



2. P039, Cylinder Caster #1

Operations, Property and/or Equipment Description:

Cylinder Caster No. 1 controlled by a fabric filter followed by HEPA filtration (joint baghouse with P038, P039, P041, and P042 and joint exhaust stack S/N 322 with P038, P039, P041, P042 and P096-P099)

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-1005, modified 11/6/2007)	Particulate emissions (PE) shall not exceed 0.03 pound per hour and 0.13 ton per year; Lead emissions shall not exceed 0.01 pound per hour and 0.05 ton per year; See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(F)	Combined particulate emissions from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 1.56 pounds per hour and 6.84 tons per year (S/N 322). Combined emissions of particulate matter of 10 microns or less (PM10) from the stack serving P038, P039, P041,



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		P042 and P096 through P099 shall not exceed 1.56 pounds per hour and 6.84 tons per year (S/N 322). Combined emissions of lead from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 0.068 pound per hour and 0.30 ton per year (S/N 322).
c.	OAC rule 3745-17-07(A)(1)	See b)(2)d.
d.	OAC rule 3745-17-11(B)	See b)(2)e.
e.	40 CFR Part 60, Subpart A (40 CFR 60.1 – 60.19)	See b)(2)f.
f.	40 CFR Part 60, Subpart KK (40 CFR 60.370 – 60.374) [In accordance with 40 CFR 60.370(b), this emissions unit is part of other lead emitting operations used in the manufacture of lead acid storage batteries at a lead acid battery manufacturing plant that has a design capacity of to produce in one day batteries containing an amount of lead equal to or greater than 6.5 tons and subject to the emissions limitations/control measures specified in this section.]	0.000437 gr/dscf of lead. [40 CFR 60.372(a)(6)] Emissions shall not exceed 0% opacity (measured according to Method 9 and rounded to the nearest whole percentage) from stack number 322. [40 CFR 60.372(a)(7)] See b)(2)g.

(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 hourly and annual emission limitations for particulate and lead 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. The hourly and annual emission limitations were established for PTI purposes to reflect the potential to emit while controlled by a fabric filter for this emissions



unit. Therefore, provided the fabric filter is used, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.

- 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).
 - f. 40 CFR Part 60 subpart A provides applicability provisions, definitions, and other general provisions that are pertinent to emissions units affected by 40 CFR Part 60.
 - g. 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) Operational Restrictions
- (1) The permittee shall operate the dry filtration system and the HEPA filtration system whenever this emissions unit is in operation.
- d) The pressure drop across the HEPA filtration system shall be maintained within the range of 0.1 to 8.0 inches of water column (WC) while the emissions unit is in operation except after replacement or complete cleaning of the filters at which time a pressure drop of less than 0.1 inch WC shall be acceptable. Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall maintain daily records that document any time periods when the dry filtration system or the HEPA filtration system was not in service when the emissions unit was in operation.
 - (2) The permittee shall properly install, operate, and maintain a monitoring device capable of accurately measuring the pressure drop across the 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).
 - (3) The permittee shall monitor and record the pressure drop across the control devices a minimum of once per week when the units are in operation. If a pressure drop is observed outside of the normal 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 control device. This includes inspection of structural and filter integrity. The permittee shall record the results of these inspections.



e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency 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. It is recommended that the PER is submitted electronically through the Ohio EPA's "e-Business Center: Air Services" although PERs can be submitted via U.S. postal service or can be hand delivered.
- (2) The permittee shall submit Annual Permit Evaluation Reports (PER) that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. any time during which the dry filtration system or the HEPA filtration system was not in service when this emissions unit was in operation;
 - ii. all days during which the pressure drop is outside of the allowable ranges;
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred, the permittee shall submit a report that states that no deviations (excursions) occurred.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section 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 (0.000091 gr/dscf, tested 1/15/1998).

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.

b. Emission Limitation:

Emissions shall not exceed 0% opacity (measured according to Method 9 and rounded to the nearest whole percentage) from the stack serving this emissions unit (S/N 322).

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent visible emissions test (0% opacity, tested 1/15/1998).

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:

PE shall not exceed 0.03 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 (0.012 lb/hr, tested 1/15/1998).

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).

d. Emission Limitation:

PE shall not exceed 0.13 ton per year.

Applicable Compliance Method:

The 0.13 tpy emission limitation was developed by multiplying the 0.03 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:

Combined particulate emissions from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 1.56 pounds per hour (S/N 322).



Applicable Compliance Method:

This emissions limitation was established to reflect the potential to emit for these emissions units by a calculation utilizing a company-supplied emission factor (0.010 gr PE/dscf) multiplied by an exhaust gas flow rate (18,206 dscfm) and by 60 minutes per hour and then divided by 7,000 grains per pound.

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

f. Emission Limitation:

Combined PE from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed and 6.84 tons per year (S/N 322).

Applicable Compliance Method:

This emissions limitation was established to reflect the potential to emit for these emissions units by a calculation utilizing a company-supplied emission factor (0.010 gr PE/dscf) multiplied by an exhaust gas flow rate (18,206 dscfm) and by 60 minutes per hour and by 8,760 hours per year and then divided by 7,000 grains per pound and by 2,000 pounds per ton.

g. Emission Limitation:

Combined PM10 from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 1.56 pounds per hour (S/N 322).

Applicable Compliance Method:

This emissions limitation was established to reflect the potential to emit for these emissions units by a calculation utilizing a company-supplied emission factor (0.010 gr PM10/dscf) multiplied by an exhaust gas flow rate (18,206 dscfm) and by 60 minutes per hour and then divided by 7,000 grains per pound.

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.

h. Emission Limitation:

Combined PM10 from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 6.84 tons per year (S/N 322).

Applicable Compliance Method:

This emissions limitation was established to reflect the potential to emit for these emissions units by a calculation utilizing a company-supplied emission factor



(0.010 gr PM10/dscf) multiplied by an exhaust gas flow rate (18,206 dscfm) and by 60 minutes per hour and by 8,760 hours per year and then divided by 7,000 grains per pound and by 2,000 pounds per ton.

i. 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 (0.00009 lb/hr, tested 1/15/1998).

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:

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/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:

Combined emissions of lead from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 0.068 pound per hour (S/N 322).

Applicable Compliance Method:

This emissions limitation was established to reflect the potential to emit for these emissions units by a calculation of the design criteria of NSPS KK emission factor (0.000437 gr Pb/dscf) multiplied by an exhaust gas flow rate (18,206 dscfm) and by 60 minutes per hour and then divided by 7,000 grains per pound.

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.

l. Emission Limitation:

Combined emissions of lead from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 0.30 ton per year (S/N 322).



Applicable Compliance Method:

This emissions limitation was established to reflect the potential to emit for these emissions units by a calculation of the design criteria of the NSPS KK emission factor (0.000437 gr Pb/dscf) multiplied by an exhaust gas flow rate (18,206 dscfm) and by 60 minutes per hour and by 8,760 hours per year and then divided by 7,000 grains per pound and by 2,000 pounds per ton.

g) Miscellaneous Requirements

- (1) None.



3. Emissions Unit Group -cylinder casters 2 and 3: P041, P042

EU ID	Operations, Property and/or Equipment Description
P041	Cylinder Caster No. 2 controlled by a fabric filter followed by HEPA filtration
P042	Cylinder Caster No. 3 controlled by a fabric filter followed by HEPA filtration

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-1047, modified 11/6/2007)	Particulate emissions (PE) shall not exceed 0.04 pound per hour and 0.18 ton per year; Lead emissions shall not exceed 0.003 pound per hour and 0.013 ton per year; and See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(F)	Combined particulate emissions from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 1.56 pounds per hour and 6.84 tons per year (S/N 322). Combined emissions of particulate matter of 10 microns or less (PM10) from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 1.56 pounds per hour and 6.84 tons per



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		year (S/N 322). Combined emissions of lead from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 0.068 pound per hour and 0.30 ton per year (S/N 322).
c.	OAC rule 3745-17-07(A)(1)	See b)(2)d.
d.	OAC rule 3745-17-11(B)(1)	See b)(2)e.
e.	40 CFR Part 60, Subpart A (40 CFR 60.1 – 60.19)	See b)(2)f.
f.	40 CFR Part 60, Subpart KK (40 CFR 60.370 – 60.374) [In accordance with 40 CFR 60.370(b), this emissions unit is part of other lead emitting operations used in the manufacture of lead acid storage batteries at a lead acid battery manufacturing plant that has a design capacity of to produce in one day batteries containing an amount of lead equal to or greater than 6.5 tons and subject to the emissions limitations/control measures specified in this section.]	0.000437 gr/dscf of lead. [40 CFR 60.372(a)(6)] Emissions shall not exceed 0% opacity (measured according to Method 9 and rounded to the nearest whole percentage) from stack number 322. [40 CFR 60.372(a)(7)] See b)(2)g.

(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 hourly and annual emission limitations for particulate and lead were established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, recordkeeping and/or reporting requirements to ensure compliance with these limitations.
- c. The hourly and annual emission limitations were established for PTI purposes to reflect the potential to emit while controlled by a fabric filter for this emissions unit. Therefore, provided the fabric filter is used, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.



- 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).
 - f. 40 CFR Part 60 subpart A provides applicability provisions, definitions, and other general provisions that are pertinent to emissions units affected by 40 CFR Part 60.
 - g. 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) **Operational Restrictions**
- (1) The permittee shall operate the dry filtration system and the HEPA filtration system whenever this emissions unit is in operation.
 - (2) The pressure drop across the HEPA filtration system shall be maintained within the range of 0.1 to 8.0 inches of water column (WC) while the emissions unit is in operation except after replacement or complete cleaning of the filters at which time a pressure drop of less than 0.1 inch WC shall be acceptable.
- d) **Monitoring and/or Recordkeeping Requirements**
- (1) The permittee shall maintain daily records that document any time periods when the dry filtration system or the HEPA filtration system was not in service when the emissions unit was in operation.
 - (2) The permittee shall properly install, operate, and maintain a monitoring device capable of accurately measuring the pressure drop across the 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).
 - (3) The permittee shall monitor and record the pressure drop across the control devices a minimum of once per week when the units are in operation. If a pressure drop is observed outside of the normal 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 control device. This includes inspection of structural and filter integrity. The permittee shall record the results of these inspections.



e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency 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. It is recommended that the PER is submitted electronically through the Ohio EPA's "e-Business Center: Air Services" although PERs can be submitted via U.S. postal service or can be hand delivered.
- (2) The permittee shall submit Annual Permit Evaluation Reports (PER) that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. any time during which the dry filtration system or the HEPA filtration system was not in service when this emissions unit was in operation;
 - ii. all days during which the pressure drop is outside of the allowable ranges;
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred, the permittee shall submit a report that states that no deviations (excursions) occurred.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section 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 (0.000091 gr/dscf, tested on 1/15/1998).

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.

b. Emission Limitation:

Emissions shall not exceed 0% opacity (measured according to Method 9 and rounded to the nearest whole percentage) from the stack serving this emissions unit (S/N 322).

Applicable Compliance Method:

Compliance shall be demonstrated based on the most recent stack test (0% opacity, tested on 1/15/1998).

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:

PE shall not exceed 0.04 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 (0.012 lb/hr, tested on 1/15/1998).

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)(9).

d. Emission Limitation:

PE shall not exceed 0.18 ton per year.

Applicable Compliance Method:

The 0.18 tpy emission limitation was developed by multiplying the 0.04 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:

Combined particulate emissions from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 1.56 pounds per hour (S/N 322).



Applicable Compliance Method:

This emissions limitation was established to reflect the potential to emit for these emissions units by a calculation utilizing a company-supplied emission factor (0.010 gr PE/dscf) multiplied by an exhaust gas flow rate (18,206 dscfm) and by 60 minutes per hour and then divided by 7,000 grains per pound.

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

f. Emission Limitation:

Combined PE from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed and 6.84 tons per year (S/N 322).

Applicable Compliance Method:

This emissions limitation was established to reflect the potential to emit for these emissions units by a calculation utilizing a company-supplied emission factor (0.010 gr PE/dscf) multiplied by an exhaust gas flow rate (18,206 dscfm) and by 60 minutes per hour and by 8,760 hours per year and then divided by 7,000 grains per pound and by 2,000 pounds per ton.

g. Emission Limitation:

Combined PM10 from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 1.56 pound per hour (S/N 322).

Applicable Compliance Method:

This emissions limitation was established to reflect the potential to emit for these emissions units by a calculation utilizing a company-supplied emission factor (0.010 gr PM10/dscf) multiplied by an exhaust gas flow rate (18,206 dscfm) and by 60 minutes per hour and then divided by 7,000 grains per pound.

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.

h. Emission Limitation:

Combined PM10 from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 6.84 tons per year (S/N 322).

Applicable Compliance Method:

This emissions limitation was established to reflect the potential to emit for these emissions units by a calculation utilizing a company-supplied emission factor



(0.010 gr PM10/dscf) multiplied by an exhaust gas flow rate (18,206 dscfm) and by 60 minutes per hour and by 8,760 hours per year and then divided by 7,000 grains per pound and by 2,000 pounds per ton.

i. Emission Limitation:

Lead emissions shall not exceed 0.003 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 (0.00009 lb/hr, tested 1/15/1998).

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:

Lead emissions shall not exceed 0.013 ton per year.

Applicable Compliance Method:

The 0.013 tpy emission limitation was developed by multiplying the 0.003 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:

Combined emissions of lead from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 0.068 pound per hour (S/N 322).

Applicable Compliance Method:

This emissions limitation was established to reflect the potential to emit for these emissions units by a calculation of the design criteria of NSPS KK emission factor (0.000437 gr Pb/dscf) multiplied by an exhaust gas flow rate (18,206 dscfm) and by 60 minutes per hour and then divided by 7,000 grains per pound.

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.

l. Emission Limitation:

Combined emissions of lead from the stack serving P038, P039, P041, P042 and P096 through P099 shall not exceed 0.30 ton per year (S/N 322).



Applicable Compliance Method:

This emissions limitation was established to reflect the potential to emit for these emissions units by a calculation of the design criteria of the NSPS KK emission factor (0.000437 gr Pb/dscf) multiplied by an exhaust gas flow rate (18,206 dscfm) and by 60 minutes per hour and by 8,760 hours per year and then divided by 7,000 grains per pound and by 2,000 pounds per ton.

g) Miscellaneous Requirements

- (1) None.