Commonwealth of Kentucky
Energy and Environment Cabinet
Department for Environmental Protection
Division for Air Quality
300 Sower Boulevard, 2nd Floor
Frankfort, Kentucky 40601
(502) 564-3999

Draft

AIR QUALITY PERMIT

Issued under 401 KAR 52:020

Permittee Name:	**Superior Battery Manufacturing Company, Inc**
Mailing Address:	**2515 Hwy 910, Russell Springs, KY 42642**
Source Name:	**Superior Battery Manufacturing Company, Inc**
Mailing Address:	**2515 Hwy 910, Russell Springs, KY 42642**
Source Location:	**Same as above**
Permit ID:	**V-25-016**
Agency Interest #:	**3893**
Activity ID:	**APE20250001**
Review Type:	**Title V, Operating**
Source ID:	**21-207-00019**
Regional Office:	**London Regional Office** **875 S. Main Street** **London, KY 40741** **(606) 330-2080**
County:	**Russell**
Application Complete Date:	**March 31, 2025**
Issuance Date:	
Expiration Date:	

For Michael J. Kennedy, P.E.
Director
Division for Air Quality

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Permit	Permit Type	Activity #	Complete Date	Issuance Date	Summary of Action
V-25-016	Renewal	APE20250001	3/31/2025		Permit Renewal, changes to maximum capacities, updated 40 CFR 63, Subpart PPPPPP, added CAM plan for OM1, OM2, & OM3, removed CAM plan for CF1 & Frm1.

SECTION A – PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Energy and Environment Cabinet (Cabinet) hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes (KRS) Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.

Definitions: The following definitions apply to all abbreviations and variables used in this permit:

AAQS – Ambient Air Quality Standards
BACT – Best Available Control Technology
Btu – British thermal unit
Cabinet – Kentucky Energy and Environmental Cabinet
CAM – Compliance Assurance Monitoring
CO – Carbon Monoxide
Division – Kentucky Division for Air Quality
HAP – Hazardous Air Pollutant
HEPA – High Efficiency Particulate Air Filter
MMBtu/hr – Million British Thermal Units per hour
MSDS – Material Safety Data Sheets
NAAQS – National Ambient Air Quality Standards
NESHAP – National Emissions Standards for Hazardous Air Pollutants
NO_x – Nitrogen Oxides
Pb – Lead
PM – Particulate Matter
PM_{10} – Particulate Matter equal to or smaller than 10 micrometers
$PM_{2.5}$ – Particulate Matter equal to or smaller than 2.5 micrometers
PTE – Potential to Emit
SCC – Standard Classification Code
U.S. EPA – Unites States Environmental Protection Agency
VOC – Volatile Organic Compounds

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

GROUP REQUIREMENTS:

Emission Unit	Stack ID	Description	Maximum Capacity (tons/hr)	Construction Commenced	Control Equipment
PbO1	OM1	Oxide Mill #1	1.0	2/1/1997	Baghouse & HEPA Filter
PbO2	OM2	Oxide Mill #2	1.0	2/1/1997	Baghouse & HEPA Filter
PbO3	OM3	Oxide Mill #3	1.0	2018	Baghouse & HEPA Filter
OMHV	OMHV	Oxide Mill Heat Vent	3.0	2020	Baghouse & HEPA Filter
C1	CF1	Grid Casting Melt Pots & Casting Ladles	1.96	12/1/1992 Modified: 2011, 2014, 2019	Baghouse & HEPA Filter
P1	PF1	Pasting lines 2 & 3	11.98	Line 2: 3/2005 Line 3: 12/1/1992 Line 4: 2010	Baghouse & HEPA Filter
	PF2	Pasting Line 4	7.55		Baghouse & HEPA Filter
	HC1-HC5	Humidity Cure 1-5	321.91 Combined	2020	None
	HC6-HC7	Humidity Cure 6 & 7	51.5056 Combined	12/1/1992; 2020	
	HC8	Humidity Cure 8	68.67	2018	
	HC9	Humidity Cure 9	30.04	2020	
	HC10	Humidity Cure 10	30.04	2020	
3-P AB	3PA	3 Process Assembly Lines A & B	5.42	12/1/1992	Baghouse & HEPA Filter
	HSA	Heat Seal Line A	3.14	12/1/1992	HEPA Filter
	HSB	Heat Seal Line B	2.29		HEPA Filter
3-P C	3PC	3 Process Assembly Line C	2.58	1/1/2001	Baghouse & HEPA Filter
	HSC	Heal Seal Line C	2.58	1/1/2001	HEPA Filter
SP1	SP1	Diversified Parts Manufacturing	0.21	1/1/2005 Modified: 2010, 2020	Pre-filter, bag filter & HEPA Filter

APPLICABLE REGULATIONS:

401 KAR 53:010, *Ambient air quality standards*

401 KAR 59:010, *New process operations*

401 KAR 60:005, Section 2(2)(rr), 40 C.F.R. 60.370 through 60.374 (Subpart KK), *Standards of Performance for Lead-Acid Battery Manufacturing Plants for Which Construction,*

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Reconstruction, or Modification Commenced After January 14, 1980, and On or Before February 23, 2022
401 KAR 63:002, Section 2(4)(ooooo), 40 C.F.R. 63.11421 through 63.11427, Table 1 (Subpart PPPPPP), *National Emission Standards for Hazardous Air Pollutants for Lead Acid Battery Manufacturing Area Sources*
40 CFR 64, *Compliance assurance monitoring* for PM, applies to OM1, OM2, OM3, and PF1.

1. <u>Operating Limitations</u>:

a. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by the applicable standard in 40 CFR Part 63 have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.11423(a)(4)]

b. Beginning no later than February 23, 2026, the permittee must prepare and, at all times, operate according to a fugitive dust mitigation plan that describes in detail the measures that will be put in place and implemented to control fugitive dust emissions in the lead oxide unloading and storage areas. The permittee must prepare a fugitive dust mitigation plan according to the requirements in 40 CFR 63.11423(d)(1) and (2). [40 CFR 63.11423(d)]
   i. The permittee must submit the fugitive dust mitigation plan to the Division for review and approval when initially developed and any time changes are made. [40 CFR 63.11423(d)(1)]
   ii. The fugitive dust mitigation plan must at a minimum include the requirements specified in 40 CFR 63.11423(d)(2)(i) through (iv). [40 CFR 63.11423(d)(2)]
      1) ***Cleaning lead oxide unloading and storage areas.*** Surfaces traversed during vehicular material transfer activity in lead oxide unloading and storage areas must be cleaned at least once per month, by wet wash or a vacuum equipped with a filter rated by the manufacturer to achieve 99.97 percent capture efficiency for 0.3 micron particles in a manner that does not generate fugitive lead dust, except when sand or a similar material has been spread on the area to provide traction on ice or snow. [40 CFR 63.11423(d)(2)(i)]
      2) ***Spills in lead oxide unloading and storage areas.*** For any leak or spill that occurs during the unloading and storage process, complete washing or vacuuming the area to remove all spilled or leaked lead bearing material within 2 hours of the leak or spill occurrence. [40 CFR 63.11423(d)(2)(ii)]
      3) ***Materials storage.*** Dust forming materials (that contain lead or lead compounds) must be stored in sealed, leak-proof containers or in a total enclosure. [40 CFR 63.11423(d)(2)(iii)]
      4) ***Records***. The fugitive dust mitigation plan must specify that records be maintained of all cleaning performed under 40 CFR 63.11423(d)(2)(i) and (ii). [40 CFR

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

63.11423(d)(2)(iv)]

2. Emission Limitations:

a. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)]

Compliance Demonstration Method:
Compliance with **2. Emission Limitations (a)** is assumed when complying with 40 CFR 60.372(a)(7) and 40 CFR 63, Subpart PPPPPP, Table 2.

b. For emissions from a control device or stack, the permittee shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in 401 KAR 59:010, Appendix A: [401 KAR 59:010, Section 3(2)]

i. For process weight rates up to 0.5 ton/hr: $E = 2.34$
ii. For process weight rates up to 30 ton/hr: $E = 3.59P^{0.62}$
iii. For process weight rates in excess of 30 ton/hr: $E = 17.31P^{0.16}$

Where E is the rate of emission in lb/hr and P is the process weight rate in tons/hr.

Compliance Demonstration Method:
To demonstrate compliance with the particulate matter emission limitations specified in 401 KAR 59:010, the permittee shall monitor the amounts and types of process weight added to each emissions unit. The process weight rate shall be determined by dividing the tons of material added to each emission unit in a calendar month divided by total hours the unit operated that month. The average particulate emissions shall be calculated as follows:

$$PE = \left(\frac{PW \times EF^{*}}{H}\right) \times (1 - CE)$$

Where:
PE = particulate emissions in lb/hr;
PW = process weight in tons/month;
EF = particulate emission factor in lb/tons of process weight;
* The particulate emission factor shall be the number determined from AP-42, SDS, the most recent Division approved stack test, or Division approved value.
H = total hours of operation in a month; and
CE = Control efficiency

c. **40 CFR 60, Subpart KK Limits**: The permittee shall not cause to be discharged into the atmosphere: [40 CFR 60.372(a)]

i. From any grid casting facility, no owner or operator shall discharge into the atmosphere any gases that contain in excess of 0.40 milligram of lead per dry standard cubic meter of exhaust (0.000175 gr/dscf). [40 CFR 60.372(a)(1)]
ii. From any paste mixing facility, no owner or operator shall discharge into the atmosphere any gases that contain in excess of 1.00 milligram of lead per dry standard cubic meter of exhaust (0.000437 gr/dscf). [40 CFR 60.372(a)(2)]

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iii. From any three-process operation facility, no owner or operator shall discharge into the atmosphere any gases that contain in excess of 1.00 milligram of lead per dry standard cubic meter of exhaust (0.000437 gr/dscf). [40 CFR 60.372(a)(3)]

iv. From any lead oxide manufacturing facility, no owner or operator shall discharge into the atmosphere any gases that contain in excess of 5.0 milligrams of lead per kilogram of lead feed (0.010 lb/ton). [40 CFR 60.372(a)(4)]

v. From any other lead-emitting operation, no owner or operator shall discharge into the atmosphere any gases that contain in excess of 1.00 milligram of lead per dry standard cubic meter of exhaust (0.000437 gr/dscf). [40 CFR 60.372(a)(6)]

vi. The permittee shall not cause to be discharged into the atmosphere from any affected facility other than a lead reclamation facility any gases with greater than zero (0) percent opacity (measured according to Reference Method 9 and rounded to the nearest whole percentage). [40 CFR 60.372(a)(7)]

vii. When two or more facilities at the same plant (except the lead oxide manufacturing facility) are ducted to a common control device, an equivalent standard for the total exhaust from the commonly controlled facilities shall be determined as follows: [40 CFR 60.372(b)]

$$S_e = \sum_{a=1}^{N} S_a \left(\frac{Q_{sd_a}}{Q_{sd_T}} \right)$$

Where:

S_e= is the equivalent standard for the total exhaust stream.

S_a= is the actual standard for each exhaust stream ducted to the control device.

N = is the total number of exhaust streams ducted to the control device.

Q_{sd_a}= is the dry standard volumetric flow rate of the effluent gas stream from each facility ducted to the control device.

Q_{sd_T}= is the total dry standard volumetric flow rate of all effluent gas streams ducted to the control device.

Compliance Demonstration Method:

The permittee shall comply with the requirements of 40 CFR 63, Subpart PPPPPP, Table 1 which are more stringent; this assures continuous compliance with the requirements of 40 CFR 60, Subpart KK.

d. **40 CFR 63, Subpart PPPPPP Limits**: The permittee must meet all the standards for lead and opacity as specified in 40 CFR 63.11423(a)(1) and (2): [40 CFR 63.11423(a)]

i. Until February 23, 2026, lead acid battery manufacturing plant affected sources must comply with 40 CFR 63.11423(a)(1)(i) or (ii): [40 CFR 63.11423(a)(1)]

1) The permittee meets all the standards for lead and opacity in 40 CFR 60.372 and the requirements of 40 CFR 63.11423(a)(4) and (5), 40 CFR 63.11423(b), and 40 CFR 63.11423(c)(1) through (3). [40 CFR 63.11423(a)(1)(i)]

2) The permittee complies with 40 CFR 63.11423(a)(2). [40 CFR 63.11423(a)(1)(ii)]

ii. Beginning no later than February 23, 2026, the permittee must meet each emission limit in table 1 of 40 CFR 63, Subpart PPPPPP and each opacity standard in table 2 of 40 CFR 63, Subpart PPPPPP that applies; the permittee must meet the requirements of 40 CFR 63.11423(a)(4) and (5), (c), and (d); and the permittee must also comply with the

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recordkeeping and electronic reporting requirements in 40 CFR 63.11424(a)(6) and (7) and (b). [40 CFR 63.11423(a)(2)]

iii. For each new or existing grid casting facility, the permittee must emit no more than 0.08 milligram of lead per dry standard cubic meter of exhaust (0.000035 gr/dscf). [40 CFR 63, Subpart PPPPPP, Table 1(1)]

iv. For each new or existing paste mixing facility, the permittee must emit no more than 0.1 milligram of lead per dry standard cubic meter of exhaust (0.0000437 gr/dscf); or emit no more than 0.9 gram of lead per hour (0.002 lbs/hr) total from all paste mixing operations. [40 CFR 63, Subpart PPPPPP, Table 1(2)]

v. For each new or existing three-process operation facility, the permittee must emit no more than 1.0 milligram of lead per dry standard cubic meter of exhaust (0.000437 gr/dscf). [40 CFR 63, Subpart PPPPPP, Table 1(3)]

vi. For each new or existing lead oxide manufacturing facility, the permittee must emit no more than 5.0 milligram of lead per kilogram of lead feed (0.010 lb/ton). [40 CFR 63, Subpart PPPPPP, Table 1(4)]

vii. For each new or existing other lead-emitting operation, the permittee must emit no more than 1.0 milligram of lead per dry standard cubic meter of exhaust (0.000437 gr/dscf). [40 CFR 63, Subpart PPPPPP, Table 1(6)]

viii. For each new or existing facility other than a lead reclamation facility, any gasses emitted must not exceed 0 percent opacity (measured according to EPA Method 9 of appendix A to 40 CFR part 60 and rounded to the nearest whole percentage or measured according to EPA Method 22 of appendix A to 40 CFR part 60). [40 CFR 63, Subpart PPPPPP, Table 2(1)]

ix. When two or more facilities at the same plant (except the lead oxide manufacturing facility) are ducted to a common control device, an equivalent standard for the total exhaust from the commonly controlled facilities shall be determined as follows: [40 CFR 63.11423(a)(5)]

$$S_e = \sum_{a=1}^{N} S_a \left(\frac{Q_{sd_a}}{Q_{sd_T}} \right)$$

Where:

S_e= is the equivalent standard for the total exhaust stream, mg/dscm (gr/dscf).

S_a= is the actual standard for each exhaust stream ducted to the control device, mg/dscm (gr/dscf).

N = is the total number of exhaust streams ducted to the control device.

Q_{sd_a}= is the dry standard volumetric flow rate of the effluent gas stream from each facility ducted to the control device, dscm/hr (dscf/hr).

Q_{sd_T}= is the total dry standard volumetric flow rate of all effluent gas streams ducted to the control device, dscm/hr (dscf/hr).

Compliance Demonstration Method:

Refer to **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **7. Specific Control Equipment Operating Conditions**.

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e. The lead emissions from each emission unit shall not exceed the emission limits listed in the following table: [401 KAR 53:010]

Emission Unit	Description	Lead Emission Limit (lb/hr)
OM1	Oxide Mill #1	0.01
OM2	Oxide Mill #2	0.01
OM3	Oxide Mill #3	0.01
OMHV	Oxide Mill Heat Vent	0.03
CF1	Grid Casting Melt Pots & Casting Ladles	0.047
PF1	Pasting Lines 2 & 3	0.178
PF2	Pasting Line 4	0.038
HC1-HC10	Humidity Cure 1-10	0.009 combined
3PA	3 Process Assembly Lines A & B	0.122
HSA	Heat Seal Line A	0.009
HSB	Heat Seal Line B	0.009
3PC	3 Process Assembly Line C	0.066
HSC	Heat Seal Line C	0.008
SP1	Diversified Parts Manufacturing	0.004

Compliance Demonstration Method:

i. The permittee shall monitor and maintain records of the hours of operation of each emission unit on a monthly basis.
ii. The permittee shall calculate the average lead emission rate (lb/hr) of each lead generating emission unit on a monthly basis at the end of each calendar month and determine the 12-month rolling total lead emissions from the facility.
iii. Refer to **5. Specific Recordkeeping Requirements (e)**.
iv. Refer to **SECTION D (4)**.

f. Refer to **SECTION D (3)** for source wide HAP emission limitations.

3. Testing Requirements:

a. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

b. The permittee must meet the performance testing requirements in 40 CFR 63.11423(c)(1) through (6): [40 CFR 63.11423(c)]

i. Existing sources are not required to conduct an initial performance test if a prior performance test was conducted using the same methods specified in 40 CFR 63.11423and either no process changes have been made since the test, or the permittee can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance with 40 CFR 63, Subpart PPPPPP despite process changes. [40 CFR 63.11423(c)(1)]

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ii. Sources without a prior performance test, as described in 40 CFR 63.11423(c)(1), must conduct an initial performance test using the methods specified in 63.11423(c)(2)(i) through (iv). [40 CFR 63.11423(c)(2)]

1) EPA Method 12 or EPA Method 29 of appendix A to 40 CFR part 60 must be used to determine the lead concentration (C_{Pb}) and the volumetric flow rate (Q_{sda}) of the effluent gas. The sampling time and the sample volume for each run must be at least 60 minutes and 0.85 dscm (30 dscf). [40 CFR 63.11423(c)(2)(i)]
2) EPA Method 9 of appendix A to 40 CFR part 60 and the procedures in 40 CFR 63.6(h) must be used to determine opacity. The opacity numbers must be rounded off to the nearest whole percentage. Or, as an alternative to Method 9, the permittee may use ASTM D7520-16 (incorporated by reference, see 40 CFR 63.14) with the caveats in 40 CFR 63.11423(c)(4)(ii)(A) through (E). [40 CFR 63.11423(c)(2)(ii)]
   A. During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520-16, the permittee or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand). [40 CFR 63.11423(c)(2)(ii)(A)]
   B. The permittee must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520-16. [40 CFR 63.11423(c)(2)(ii)(B)]
   C. The permittee must follow the recordkeeping procedures outlined in 40 CFR 63.10(b)(1) for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination. [40 CFR 63.11423(c)(2)(ii)(C)]
   D. The permittee or the DCOT vendor must have a minimum of four (4) independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity of any one reading and the average error must not exceed 7.5 percent opacity. [40 CFR 63.11423(c)(2)(ii)(D)]
   E. This approval does not provide or imply a certification or validation of any vendor's hardware or software. The onus to maintain and verify the certification and/or training of the DCOT camera, software, and operator in accordance with ASTM D7520-16 and this letter is on the facility, DCOT operator, and DCOT vendor. [40 CFR 63.11423(c)(2)(ii)(E)]
3) When different operations in a three-process operation facility are ducted to separate control devices, the lead emission concentration (C) from the facility must be determined using the following equation: [40 CFR 63.11423(c)(2)(iii)]

$$C = \frac{\sum_{a=1}^{n}(C_a Q_{sd_a})}{\sum_{a=1}^{n} Q_{sd_a}}$$

Where:
C = concentration of lead emissions for the entire facility, mg/dscm (gr/dscf).
C_a = concentration of lead emissions from facility “a”, mg/dscm (gr/dscf).

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Q_{sd_a} = volumetric flow rate of effluent gas from facility "a", dscm/hr (dscf/hr).
n = total number of control devices to which separate operations in the facility are ducted.

4) For a lead oxide manufacturing facility, the lead emission rate must be determined as specified in 40 CFR 63.11423(c)(2)(iv)(A) and (B). [40 CFR 63.11423(c)(2)(iv)]
   A. The emission rate (E) from lead oxide manufacturing facility must be computed for each run using the following equation: [40 CFR 63.11423(c)(2)(iv)(A)]

$$E = \frac{\sum_{i=1}^{M} C_{pb_i} Q_{sd_i}}{PK}$$

Where:
E = emission rate of lead, mg/kg (lb/ton) of lead charged.
C_{pb_i} = concentration of lead from emission point "i," mg/dscm (gr/dscf).
Q_{sd_i}= volumetric flow rate of effluent gas from emission point "i," dscm/hr (sdcf/hr).
M = number of emission points in the affected facility.
P = lead feed rate to the facility, kg/hr (ton/hr).
K = conversion factor, 1.0 mg/mg (7000 gr/lb).

   B. The average lead feed rate (P) shall be determined for each run using the following equation: [40 CFR 63.11423(c)(2)(iv)(B)]

$$P = N * \frac{W}{\Theta}$$

Where:
N = number of lead ingots charged.
W = average mass of the lead ingots, kg (ton).
Θ = duration of run, hr.

iii. In conducting the initial performance tests required in 40 CFR 63.7, the permittee must use as reference methods and procedures the test methods in appendix A to 40 CFR part 60 or other methods and procedures as specified 40 CFR 63.11423, except as provided in 40 CFR 63.7(f). [40 CFR 63.11423(c)(3)]

iv. After the initial performance test described in 40 CFR 63.11423(c)(1) through (3), the permittee must conduct subsequent performance tests every 5 years to demonstrate compliance with each applicable emissions limitations and opacity standards. Within three years of February 23, 2023, performance testing must be conducted for each affected source subject to an applicable emissions limitation in tables 1 and 2 of 40 CFR 63, Subpart PPPPPP that has not had a performance test within the last 5 years, except as described in 40 CFR 63.11423(c)(6). Thereafter, subsequent performance tests for each affected source must be completed no less frequently than every 5 years from the date the emissions source was last tested. [40 CFR 63.11423(c)(4)]

v. In lieu of conducting subsequent performance tests for each affected source, the permittee may elect to group similar affected sources together and conduct subsequent performance tests on one representative affected source within each group of similar affected sources. The determination of whether affected sources are similar must meet the criteria in 40 CFR 63.11423(c)(5)(i). If the permittee decides to test representative

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affected sources, the permittee must prepare and submit a testing plan as described in 40 CFR 63.11423(c)(5)(iii). [40 CFR 63.11423(c)(5)]

1) If the permittee elects to test representative affected sources, the affected sources that are grouped together must be of the same process type (e.g., grid casting, paste mixing, three-process operations) and also have the same type of air pollution control device (e.g., fabric filters). The permittee cannot group affected sources from different process types or with different air pollution control device types together for the purposes of 40 CFR 63.11423. [40 CFR 63.11423(c)(5)(i)]
2) The results of the performance test conducted for the affected source selected as representative of a group of similar affected sources will represent the results for each affected source within the group. In the performance test report, all affected sources in the group will need to be listed. [40 CFR 63.11423(c)(5)(ii)]
3) If the permittee plans to conduct subsequent performance tests on representative emission units, the permittee must submit a test plan. This test plan must be submitted to the Division for review and approval no later than 90 days prior to the first scheduled performance test. The test plan must contain the information specified in 40 CFR 63.11423(c)(5)(iii)(A) through (C). [40 CFR 63.11423(c)(5)(iii)]
   A. A list of all emission units. This list must clearly identify all emission units that have been grouped together as similar emission units. Within each group of emission units, the permittee must identify the emission unit that will be the representative unit for that group and subject to performance testing. [40 CFR 63.11423(c)(5)(iii)(A)]
   B. A list of the process type and type of air pollution control device on each emission unit. [40 CFR 63.11423(c)(5)(iii)(B)]
   C. A date of last test for each emission unit and a schedule indicating when the permittee will conduct performance tests for each emission unit within the representative groups. [40 CFR 63.11423(c)(5)(iii)(C)]
4) If the permittee conducts subsequent performance tests on representative emission units, the unit with the oldest test must be tested first, and each subsequent performance test must be performed for a different unit until all units in the group have been tested. The order of testing for each subsequent test must proceed such that the unit in the group with the least recent performance test is the next unit to be tested. [40 CFR 63.11423(c)(5)(iv)]

vi. The permittee may not conduct performance tests during periods of malfunction. The permittee must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. The permittee must make available to the Administrator in the test report, records as may be necessary to determine the conditions of performance tests. [40 CFR 63.11423(c)(6)]

4. <u>Specific Monitoring Requirements</u>:

a. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. The monthly total materials used for each emission unit in tons.
   ii. The monthly total hours of operation.
   iii. The monthly total natural gas usage in MMscf.

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b. For any emissions point controlled by a fabric filter, the permittee shall meet the requirements of 40 CFR 63.11423(b)(2)(i) and either 40 CFR 63.11423(b)(2)(ii) or (iii). Fabric filters equipped with a high efficiency particulate air (HEPA) filter or other secondary filter are allowed to monitor less frequently, as specified in 40 CFR 63.11423 (b)(2)(iv). [40 CFR 63.11423(b)(2)]
   i. The permittee shall perform semiannual inspections and maintenance to ensure proper performance of each fabric filter. This includes inspection of structural and filter integrity. The permittee shall record the results of these inspections. [40 CFR 63.11423(b)(2)(i)]
   ii. The permittee shall install, maintain, and operate a pressure drop monitoring device to measure the differential pressure drop across the fabric filter during all times when the process is operating. The pressure drop shall be recorded at least once per day. If a pressure drop is observed outside of the normal operational ranges, the permittee shall record the incident and take immediate corrective actions. The permittee shall also record the corrective actions taken. The permittee shall submit a monitoring system performance report in accordance with 40 CFR 63.10(e)(3). [40 CFR 63.11423(b)(2)(ii)]
   iii. The permittee shall conduct a visible emissions observation at least once per day to verify that no visible emissions are occurring at the discharge point to the atmosphere from any emissions source subject to the requirements of 40 CFR 63.11423(a). If visible emissions are detected, the permittee shall record the incident and conduct an opacity measurement in accordance with 40 CFR 60.374(b)(3). The permittee shall record the results of each opacity measurement. If the measurement exceeds the applicable opacity standard in 40 CFR 60.372(a)(7) or (8), the permittee shall submit this information in an excess emissions report required under 40 CFR 63.10(e)(3). [40 CFR 63.11423(b)(2)(iii)]
   iv. Fabric filters equipped with a HEPA filter or other secondary filter are allowed to monitor less frequently, as specified in 40 CFR 63.11423(b)(2)(iv)(A) or (B). [40 CFR 63.11423(b)(2)(iv)]
      1) If the permittee is using a pressure drop monitoring device to measure the differential pressure drop across the fabric filter in accordance with 40 CFR 63.11423(b)(2)(ii), the permittee shall record the pressure drop at least once per week. If a pressure drop is observed outside of the normal operational ranges as specified by the manufacturer, the permittee shall record the incident and take immediate corrective actions. The permittee shall also record the corrective actions taken. The permittee shall submit a monitoring system performance report in accordance with 40 CFR 63.10(e)(3). [40 CFR 63.11423(b)(2)(iv)(A)]
      2) If the permittee is conducting visible emissions observations in accordance with 40 CFR 63.11423(b)(2)(iii), the permittee shall conduct such observations at least once per week and record the results in accordance with 40 CFR 63.11423(b)(2)(iii). If visible emissions are detected, the permittee shall record the incident and conduct an opacity measurement in accordance with 40 CFR 60.374(b)(3). The permittee shall record the results of each opacity measurement. If the measurement exceeds the applicable opacity standard in 40 CFR 60.372(a)(7) or (8), the permittee shall submit this information in an excess emissions report required under 40 CFR 63.10(e)(3). [40 CFR 63.11423(b)(2)(iv)(B)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c. Beginning no later than February 23, 2026, emissions points controlled by a fabric filter without a secondary filter must meet the requirements of 40 CFR 63.11423(e)(2)(i) and (ii) and either 40 CFR 63.11423(e)(2)(iii) or 40 CFR 63.11423(e)(2)(iv). [40 CFR 63.11423(e)(2)]
   i. The permittee must perform quarterly inspections and maintenance to ensure proper performance of each fabric filter. This includes inspection of structural and filter integrity. [40 CFR 63.11423(e)(2)(i)]
   ii. If it is not possible for the permittee to take the corrective actions specified in 40 CFR 63.11423(e)(2)(iii)(C) or (D) for a process or fabric filter control device, the permittee must keep at least one replacement fabric filter onsite at all times for that process or fabric filter control device. The characteristics of the replacement filters must be the same as the current fabric filters in use or have characteristics that would achieve equal or greater emission reductions. [40 CFR 63.11423(e)(2)(ii)]
   iii. Install, maintain, and operate a pressure drop monitoring device to measure the differential pressure drop across the fabric filter during all times when the process is operating. The pressure drop must be recorded at least twice per day (at least 8 hours apart) if the results of the most recent performance test indicate that emissions are greater than 50 percent of the lead emissions limit in table 1 to 40 CFR 63, Subpart PPPPPP. The pressure drop must be recorded at least once per day if the results of the most recent performance test indicate that emissions are less than or equal to 50 percent of the lead emissions limit in table 1. If a pressure drop is observed outside of the normal operational ranges, the permittee must record the incident and take immediate corrective actions. The permittee must submit an excess emissions and continuous monitoring system performance report and summary report required under 40 CFR 63.11424(c). The permittee must also record the corrective actions taken and verify pressure drop is within normal operational range. These corrective actions may include but are not limited to those provided in 40 CFR 63.11423(e)(2)(iii)(A) through (D). [40 CFR 63.11423(e)(2)(iii)]
      1) Inspecting the filter and filter housing for air leaks and torn or broken filters. [40 CFR 63.11423(e)(2)(iii)(A)]
      2) Replacing defective filter media, or otherwise repairing the control device. [40 CFR 63.11423(e)(2)(iii)(B)]
      3) Sealing off a defective control device by routing air to other control devices. [40 CFR 63.11423(e)(2)(iii)(C)]
      4) Shutting down the process producing the lead emissions. [40 CFR 63.11423(e)(2)(iii)(D)]
   iv. Conduct a visible emissions observation using EPA Method 9 or EPA Method 22 of appendix A to 40 CFR part 60 while the process is in operation to verify that no visible emissions are occurring at the discharge point to the atmosphere from any emissions source subject to the requirements 40 CFR 63.11423(a). The visible emissions observation must be conducted at least twice daily (at least 6 hours apart) if the results of the most recent performance test indicate that emissions are greater than 50 percent of the lead emissions limit in table 1 to 40 CFR 63, Subpart PPPPPP. The visible emissions observation must be conducted at least once per day if the results of the most recent performance test indicate that emissions are less than or equal to 50 percent of the lead emissions limit in table 1. If visible emissions are detected, the permittee must

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

record the incident and submit this information in an excess emissions and continuous monitoring system performance report and summary report required under 40 CFR 63.11424(c) and take immediate corrective action. The permittee must also record the corrective actions taken. These corrective actions may include but are not limited to those provided in 40 CFR 63.11423(e)(2)(iii)(A) through (D). [40 CFR 63.11423(e)(2)(iv)]

d. Beginning no later than February 23, 2026, emissions points controlled by a fabric filter equipped with a secondary filter, such as a HEPA filter, must meet the requirements of 40 CFR 63.11423(e)(3)(i) and (ii) and either 40 CFR 63.11423(e)(3)(iii) or 40 CFR 63.11423(e)(3)(iv). [40 CFR 63.11423(e)(3)]
   i. The permittee must perform the inspections required in 40 CFR 63.11423(e)(2)(i) quarterly. [40 CFR 63.11423(e)(3)(i)]
   ii. If it is not possible to take the corrective actions specified in 40 CFR 63.11423(e)(2)(iii)(C) or (D) for a process or fabric filter control device, the permittee must keep at least one replacement primary fabric filter and one replacement secondary filter onsite at all times for that process or fabric filter control device. The characteristics of the replacement filters must be the same as the current fabric filters in use or have characteristics that would achieve equal or greater emission reductions. [40 CFR 63.11423(e)(3)(ii)]
   iii. The permittee must perform the pressure drop monitoring requirements in 40 CFR 63.11423(e)(2)(iii). The permittee may perform these requirements once weekly rather than once or twice daily. [40 CFR 63.11423(e)(3)(iii)]
   iv. The permittee must perform the visible emissions observation requirements in 40 CFR 63.11423(e)(2)(iv). The permittee may perform these requirements weekly rather than once or twice daily. [40 CFR 63.11423(e)(3)(iv)]

e. Beginning no later than February 23, 2026, if the permittee operates a bag leak detection system, that system must meet the specifications and requirements in 40 CFR 63.11423(e)(4)(i) through (ix). Emission points controlled by a fabric filter equipped that are monitored with a bag leak detection system meeting the specifications and requirements in 40 CFR 63.1423(e)(4)(i) through (ix) may have the inspections required in 40 CFR 63.11423(e)(2)(i) performed semiannually. [40 CFR 63.11423(e)(4)]
   i. The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter as lead emissions at concentrations at or below the values in table 1 to 40 CFR 63, Subpart PPPPPP, as applicable to the process for which the fabric filter is used to control emissions. Where the fabric filter is used as a control device for more than one process, the lowest applicable value in table 1 must be used. [40 CFR 63.11423(e)(4)(i)]
   ii. The bag leak detection system sensor must provide output of relative particulate matter loadings. [40 CFR 63.11423(e)(4)(ii)]
   iii. The bag leak detection system must be equipped with an alarm system that will alarm when an increase in relative particulate loadings is detected over a preset level. [40 CFR 63.11423(e)(4)(iii)]
   iv. The permittee must install and operate the bag leak detection system in a manner consistent with the guidance provided in “Office of Air Quality Planning and Standards

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(OAQPS) Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015) (incorporated by reference, see 40 CFR 63.14) and the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system. [40 CFR 63.11423(e)(4)(iv)]

v. The initial adjustment of the system must, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device and establishing the alarm set points and the alarm delay time. [40 CFR 63.11423(e)(4)(v)]

vi. Following initial adjustment, the permittee must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in the approved standard operating procedures manual required under 40 CFR 63.11423(e)(4)(ix). The permittee cannot increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection that demonstrates that the fabric filter is in good operating condition. [40 CFR 63.11423(e)(4)(vi)]

vii. For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the permittee must install the bag leak detector downstream of the fabric filter. [40 CFR 63.11423(e)(4)(vii)]

viii. Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. [40 CFR 63.11423(e)(4)(viii)]

ix. The permittee must develop a standard operating procedures manual for the bag leak detection system that includes procedures for making system adjustments and a corrective action plan, which specifies the procedures to be followed in the case of a bag leak detection system alarm. The corrective action plan must include, at a minimum, the procedures that the permittee will use to determine and record the time and cause of the alarm as well as the corrective actions taken to minimize emissions as specified in 40 CFR 63.11423(e)(4)(ix)(A) and (B). [40 CFR 63.11423(e)(4)(ix)]

1) The procedures used to determine the cause of the alarm must be initiated within 30 minutes of the alarm. [40 CFR 63.11423(e)(4)(ix)(A)]

2) The cause of the alarm must be alleviated by taking the necessary corrective action(s) that may include, but not be limited to, those listed in 40 CFR 63.11423(e)(4)(ix)(B)(1) through (6). [40 CFR 63.11423(e)(4)(ix)(B)]

A. Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions. [40 CFR 63.11423(e)(4)(ix)(B)(1)]

B. Sealing off defective bags or filter media. [40 CFR 63.11423(e)(4)(ix)(B)(2)]

C. Replacing defective bags or filter media, or otherwise repairing the control device. [40 CFR 63.11423(e)(4)(ix)(B)(3)]

D. Sealing off defective baghouse compartment. [40 CFR 63.11423(e)(4)(ix)(B)(4)]

E. Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system. [40 CFR 63.11423(e)(4)(ix)(B)(5)]

F. Shutting down the process producing the lead emissions. [40 CFR 63.11423(e)(4)(ix)(B)(6)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

f. For continuous monitoring subject to the requirements of 40 CFR 63.8(d)(2) to develop and implement a continuous monitoring system quality control program, the permittee must keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of 40 CFR part 63, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the permittee must keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. The program of corrective action should be included in the plan required under 40 CFR 63.8(d)(2). [40 CFR 63.11423(e)(5)]

g. Refer to **Appendix A** for CAM requirements pursuant to 40 CFR 64 for OM1, OM2, OM3, and PF1.

h. Refer to **SECTION F** for general monitoring requirements.

5. <u>Specific Recordkeeping Requirements</u>:

a. The permittee shall keep records of the following: [401 KAR 52:020, Section 10]
   i. The monthly total materials used for each emission unit in tons.
   ii. The monthly total hours of operation.
   iii. The monthly total natural gas usage in MMscf.

b. The permittee shall record the results of semiannual inspections and maintenance. [40 CFR 63.11423(b)(2)(i)]

c. The permittee shall record the results of each opacity measurement. [40 CFR 63.11423(b)(2)(iii)]

d. The permittee shall maintain records of the daily pressure drop readings and any corrective actions taken. [40 CFR 63.11423(b)(2)(ii)]

e. The permittee shall maintain monthly records of the average lead emission rate (lb/hr) of each lead generating emission unit and the 12-month rolling total lead emissions from the facility. [401 KAR 53:010]

f. The permittee must keep the records specified in 40 CFR 63.11424(a) according to the applicable compliance date in 40 CFR 63.11422(f) and (g) or (i) and maintain them in a format readily available for review onsite for a period of 5 years. [40 CFR 63.11424(a)]
   i. Records of fabric filter inspections and maintenance activities required in 40 CFR 63.11423(e)(2)(i) or (e)(3)(i). [40 CFR 63.11424(a)(2)]
   ii. Records required under 63.11423(e)(2)(iii) or (e)(3)(iii) of fabric filter pressure drop, pressure drop observed outside of normal operating ranges as specified by the manufacturer, and corrective actions taken. [40 CFR 63.11424(a)(3)]
   iii. Records of the required visible emissions observations in 40 CFR 63.11423(e)(2)(iv) or (e)(3)(iv). [40 CFR 63.11424(a)(4)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

g. The permittee must keep the records of failures to meet an applicable standard in 40 CFR 60 as specified in 40 CFR 63.11424(a)(5)(i) through (iii). [40 CFR 63.11424(a)(5)]
   i. In the event that an affected unit fails to meet an applicable standard in 40 CFR part 63, record the number of failures. For each failure record the date, time, cause, and duration of each failure. [40 CFR 63.11424(a)(5)(i)]
   ii. For each failure to meet an applicable standard in 40 CFR part 63, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions. [40 CFR 63.11424(a)(5)(ii)]
   iii. Record actions taken to minimize emissions and any corrective actions taken to return the affected unit to its normal or usual manner of operation. [40 CFR 63.11424(a)(5)(iii)]

h. If a bag leak detection system is used under 40 CFR 63.11423(e)(4), for a period of 5 years keep the records, specified in 40 CFR 63.11424(a)(6)(i) through (iii). [40 CFR 63.11424(a)(6)]
   i. Electronic records of the bag leak detection system output. [40 CFR 63.11424(a)(6)(i)]
   ii. An identification of the date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, the cause of the alarm, an explanation of the corrective actions taken, and the date and time the cause of the alarm was corrected. [40 CFR 63.11424(a)(6)(ii)]
   iii. All records of inspections and maintenance activities required under 40 CFR 63.11423(e)(4). [40 CFR 63.11424(a)(6)(iii)]

i. Records of all cleaning required as part of the practices described in the fugitive dust mitigation plan required under 40 CFR 63.11423(d)(2)(iii) for the control of fugitive dust emissions. [40 CFR 63.11424(a)(7)]

j. Any records required to be maintained by 40 CFR 63, Subpart PPPPPP that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation. [40 CFR 63.11424(d)]

k. For OM1, OM2, OM3, and PF1: The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 CFR 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). [40 CFR 64.9(b)(1)]

l. For OM1, OM2, OM3, and PF1: Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b)(2)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

m. Refer to **SECTION F** for general recordkeeping requirements for OM1, OM2, OM3, and PF1.

6. <u>Specific Reporting Requirements</u>:

a. The permittee shall submit a monitoring system performance report in accordance with 40 CFR 63.10(e)(3). [40 CFR 63.11423(b)(2)(ii)]

b. If the opacity measurement exceeds the applicable opacity standard in 40 CFR 60.372(a)(7) or (8) the permittee shall submit this information in an excess emissions report required under 40 CFR 63.10(e)(3). [40 CFR 63.11423(b)(2)(iii)]

c. Within 60 days after the date of completing each performance test or demonstration of compliance required by 40 CFR 63, Subpart PPPPPP, the permittee must submit the results of the performance test following the procedures specified in 40 CFR 63.9(k) and 40 CFR 63.11424(b)(1) through (3). [40 CFR 63.11424(b)]

i. ***Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (***https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert***) at the time of the test.*** Submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/). The data must be submitted in a file format generated using the EPA's ERT. Alternatively, the permittee may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. [40 CFR 63.11424(b)(1)]

ii. ***Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test.*** The results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI. If a performance test consists only of opacity measurements, reporting using the ERT and CEDRI is not required. [40 CFR 63.11424(b)(2)]

iii. ***Data collected containing confidential business information (CBI).*** All CBI claims must be asserted at the time of submission. Do not use CEDRI to submit information claimed as CBI. Anything submitted using CEDRI cannot later be claimed CBI. [40 CFR 63.11424(b)(3)]

d. Beginning on February 23, 2024, or once the report template for 40 CFR 63, Subpart PPPPPP has been available on the CEDRI website for one-year, whichever date is later, the permittee must submit a report of excess emissions and monitoring systems performance report and summary report according to 40 CFR 63.9(k) and 40 CFR 63.10(e)(3) to the Administrator semiannually. Report the number of failures to meet an applicable standard in 40 CFR part 63. For each instance, report the date, time, cause, and duration of each failure. For each failure, the report must include a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions. The permittee must use the appropriate electronic report template on the CEDRI website

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(https://www.epa.gov/electronic-reporting-air-emissions/cedri) or an alternate electronic file consistent with the XML schema listed on the CEDRI website for 40 CFR 63, Subpart PPPPPP. The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in 40 CFR 63, Subpart PPPPPP, regardless of the method in which the report is submitted. Submit all reports to the EPA via CEDRI, which can be accessed through the EPA's CDX (https://cdx.epa.gov/). The EPA will make all the information submitted through CEDRI available to the public without further notice. Do not use CEDRI to submit information the permittee claims as CBI. Anything submitted using CEDRI cannot later be claimed CBI. The report must be submitted by the deadline specified in 40 CFR 63, Subpart PPPPPP, regardless of the method in which the report is submitted. [40 CFR 63.11424(c)]

e. Any records required to be maintained by 40 CFR 63, Subpart PPPPPP that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to the Division or the EPA as part of an on-site compliance evaluation. [40 CFR 63.11424(d)]

f. For OM1, OM2, OM3, and PF1: On and after the date specified in 40 CFR 64.7(a) by which the permittee must use monitoring that meets the requirements of 40 CFR 64, the permittee shall submit monitoring reports to the Division in accordance with **SECTION F**. [40 CFR 64.9(a)(1)]

g. For OM1, OM2, OM3, and PF1: A report for monitoring under 40 CFR 64 shall include, at a minimum, the information required under 40 CFR 70.6(a)(3)(iii) and the following information, as applicable: [40 CFR 64.9(a)(2)]
   i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken; [40 CFR 64.9(a)(2)(i)]
   ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and [40 CFR 64.9(a)(2)(ii)]
   iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring. [40 CFR 64.9(a)(2)(iii)]
   iv. The threshold for requiring the implementation of a QIP is an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a semiannual reporting period. [40 CFR 64.8(a)]

h. Refer to **Appendix A** for reporting requirements under 40 CFR 64 for OM1, OM2, OM3, and PF1.

i. Refer to **SECTION F** for general reporting requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

7. <u>Specific Control Equipment Operating Conditions</u>:

a. The permittee shall install, operate, and maintain the control device(s) associated with each emission unit according to the manufacturer's specifications and during all times that the associated emission unit is operating. [401 KAR 52:020, Section 10]

b. The permittee shall maintain calibration records for the monitoring device. [401 KAR 52:020, Section 10]

c. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the emission points are in operation but the associated air pollution control equipment is not. Immediate notification to the Division shall be made in accordance with **SECTION F.**7. [401 KAR 52:020, Section 10]

d. Refer to **SECTION E**.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Formation Operation

Emission Unit Frm1 Formation Operation

Description:
Formation is one (1) process where batteries are sitting and charging on many tables. All tables are attached to a single duct which supply any of three (3) scrubbers. The operation consists of: Battery formation tables; two (2) sulfuric acid fillers; make up air units; sulfuric acid dumper; battery washer and post burnisher.

Maximum Capacity: 27.0 tons/hr
Fuel: Natural gas (for make-up air units and radiant heaters)
Stack ID: FS1, FS2, and FS3
Control Equipment: Three (3) wet scrubbers for sulfuric acid mist
Construction Commenced: 12/1992

APPLICABLE REGULATION:
401 KAR 59:010, *New process operations*

STATE-ORIGIN REQUIREMENT:
401 KAR 63:020, *Potentially hazardous matter or toxic substances*

1. **Operating Limitations:**
   The associated control equipment for each emission unit shall operate according to manufacturer's specifications at all times when the corresponding emission unit is in operation. [401 KAR 63:020]

2. **Emission Limitations:**
   a. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]

      Compliance Demonstration Method:
      Refer to **4. Specific Monitoring Requirements (b)** and **5. Specific Recordkeeping Requirements (b)**.

   b. For emissions from a control device or stack, the permittee shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified below: [401 KAR 59:010, Section 3(2)]
      i. For process weight rates up to 0.5 ton/hr: $E = 2.34$
      ii. For process weight rates up to 30 ton/hr: $E = 3.59P^{0.62}$
      Where E is the rate of emission in lb/hr and P is the process weight rate in tons/hr.

      Compliance Demonstration Method:
      To demonstrate compliance with the particulate matter emission limitations specified in 401 KAR 59:010, the permittee shall monitor the amounts and types of process weight

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

added to each emission unit. The process weight rate shall be determined by using the tons of material added to each emissions unit in a calendar month divided by the total hours the unit operated that month. The average particulate emissions shall be calculated as follows:

$$PE = \left(\frac{PW \times EF^{*}}{H}\right) \times (1 - CE)$$

Where:
PE = particulate emissions in lb/hr;
PW = process weight in tons/month;
EF = particulate emission factor in lb/tons of process weight;
* The particulate emission factor shall be the number determined from AP-42, MSDS, the most recent Division approved stack test, or Division approved value.
H = total hours of operation in a month; and
CE = Control efficiency

c. The permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. [401 KAR 63:020, Section 3]

Compliance Demonstration Method:
The Cabinet determines that the source is in compliance with 401 KAR 63:020 when operating control devices, based on the rate of emissions of airborne toxics determined by the Cabinet using information provided in the application and any supplemental information submitted by the source.

d. Refer to **SECTION D (3)** for source-wide HAP emission limitations.

3. <u>Testing Requirements</u>:
Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. <u>Specific Monitoring Requirements</u>:
a. The permittee shall monitor of the following: [401 KAR 52:020, Section 10]
   i. The monthly total amount of material processed in tons.
   ii. The monthly total monthly hours of operation.
   iii. The monthly total natural gas usage in MMscf.

b. The permittee shall perform a qualitative visual observation of the opacity of emissions from the stack no less frequently than once a day while the affected facility is operating. If visible emissions from the stack are observed (not including condensed water in the plume), then the permittee shall determine the opacity using U.S. EPA Reference Method 9. In lieu of determining the opacity using U.S. EPA Reference Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume). [401 KAR 52:020, Section 10]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c. The permittee shall inspect spray headers and nozzles once per quarter. [401 KAR 52:020, Section 10]

d. The permittee shall inspect mist pads and filters twice per year. [401 KAR 52:020, Section 10]

e. The permittee shall perform annual visual inspection of emission capture and collection system. [401 KAR 52:020, Section 10]

f. Refer to **SECTION F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

a. The permittee shall keep records of the following: [401 KAR 52:020, Section 10]
   i. The monthly total amount of material processed in tons.
   ii. The monthly total hours of operation.
   iii. The monthly total natural gas usage in MMscf.
   iv. SDS for all chemicals or materials used.

b. The permittee shall retain records of the qualitative visual observations required by **4. Specific Monitoring Requirements (b)**, including the date, time, initials of observer, whether any emissions were observed (yes/no), any Method 9 readings taken, and any corrective action taken including results due to observed emissions. [401 KAR 52:020, Section 10]

c. The permittee shall keep records of inspections of spray headers and nozzles once per quarter. [401 KAR 52:020, Section 10]

d. The permittee shall keep records of inspections of mist pads and filters twice per year. [401 KAR 52:020, Section 10]

e. Refer to **SECTION F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

Refer to **SECTION F** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

a. The permittee shall install, operate, and maintain the associated control device(s) for each emission unit according to the manufacturer's instructions and during all times that the associated emission unit is operating. [401 KAR 63:020]

b. The permittee shall install, calibrate at least annually, and maintain a device for the measurement of pressure drop across the scrubber. [401 KAR 52:020, Section 10]

c. The permittee shall maintain calibration records for all monitoring devices. [401 KAR 52:020, Section 10]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d. The permittee shall not recirculate scrubbing liquid in any scrubber. [401 KAR 52:020, Section 10]

e. Refer to **SECTION E**.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Point PW Terminal Coating (S9-TC)

Description: Small die cast parts are robotically dipped in a GENTECH solvent.
Manufacturer / Model No.: Central Machinery / 60769
Solvent type: GENTECH
Maximum usage: 220 gallons/yr
Hours of operation: 8760 hr/yr
Construction commenced: 2019; modified 2020

PRECLUDED REGULATION:
401 KAR 59:225, *New miscellaneous metal parts and products surface coating operations*

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   To preclude the applicability of 401 KAR 59:225, the total VOC emissions from all affected facilities shall not exceed 20 tons per year. [401 KAR 59:225, Section 6(3)]

   Compliance Demonstration Method:
   Refer to **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements**.

3. **Testing Requirements:**
   Pursuant to 401 KAR 50:045, Section 1, performance testing using the reference methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. **Specific Monitoring Requirements:**
   a. The permittee shall monitor solvent usage, the type of solvent used each time solvent is added to the unit, and total monthly hours of operation. [401 KAR 52:020, Section 10]

   b. The permittee shall calculate VOC emissions each month and keep a rolling 12-month total of emissions to ensure compliance with the emissions limit listed in Section **2. Emission Limitations**. [401 KAR 52:020, Section 10]

   c. Refer to **SECTION F** for general monitoring requirements.

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
      i. The monthly usage rate of all materials used.
      ii. The monthly total hours of operation.
      iii. The VOC content of all the materials used.

   b. The permittee shall maintain MSDS for all materials used on site at all times. MSDS shall specify the VOC content of the materials used. VOC emissions shall be summarized each

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

month and a rolling 12-month total shall be calculated, recorded, and compared to the emission limitations in **2. Emission Limitations**. [401 KAR 52:020, Section 10]

c. Refer to **SECTION F** for general recordkeeping requirements.

6. Specific Reporting Requirements:
Refer to **SECTION F** for general reporting requirements.

SECTION C – INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. Although these activities are designated as insignificant the permittee must comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to an opacity standard shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspection, evaluation, and any corrective action shall be recorded in a log.

Description	Generally Applicable Regulation
1. Product Samplers	N/A
2. Electric Air Compressors	N/A
3. Radiant Heaters at Hwy 2515 plant	401 KAR 59:010 401 KAR 63:020

Qty	Max Btu/hr (each)
3	150,000
5	125,000
35	100,000
4	90,000
2	80,000
5	60,000
Total	5,395,000

4. Equipment Maintenance	N/A
5. Mold Coat Mixing in casting facility	401 KAR 61:020
6. Battery Cell Continuity Tester	N/A
7. Building # 3 Space Heater, Gas Fired at 900,000 Btu/hr	401 KAR 59:010 401 KAR 63:020
8. Eberle 4-Head Acid Filler, SR AF 1005-4	401 KAR 59:010
9. Eberle Acid Dumper, AD-4	401 KAR 59:010
10. ConBro Battery Washer	401 KAR 59:010
11. Eberle Finish Line All in One Tester, Finishing line (post brush, high rate and date code)	401 KAR 59:010
12. Acid Mixing	401 KAR 59:010
13. Two (2) Direct fired Make Up Air Heaters in Formation Room, each at 1,728,000 Btu/hr	401 KAR 59:010 401 KAR 63:020
14. Four (4) Make Up Air units in finishing areas each at 2,160,000 Btu/hr, included in Formation Operation	401 KAR 59:010 401 KAR 63:020

SECTION C – INSIGNIFICANT ACTIVITIES (CONTINUED)

15. Radiant Heaters at Hwy 1535 plant — 401 KAR 59:010, 401 KAR 63:020

Qty	Max Btu/hr (each)
12	125,000
6	100,000
1	60,000
1	80,000
3	150,000
Total	2,690,000

16. Acid Storage Tanks, 93% Sulfuric Acid and dilute acid tanks at 1.4 specific gravity, 1.1 specific gravity and less — 401 KAR 59:010, 401 KAR 63:020

17. Small diversified parts, SP2 — 401 KAR 59:010, 401 KAR 63:020

18. Coil Unwinder, 2,500 lb capacity, unwinds lead strip S10-CU — 401 KAR 59:010

19. Coil winder, 2,500 lb capacity, winds grid into coiled S-9-CW — 401 KAR 59:010

20. One (1) Grid Curing 19,000 lb batch; 2 batch per day, electric with canopy hood to remove radiated heat — N/A

21. J213B Hot Chamber Die Caster — 401 KAR 59:010

22. Two T-SOK Die Casters — 401 KAR 59:010

23. Four (4) cooling towers — 401 KAR 59:010

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. *Lead*, *PM*, opacity, and *VOC* emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 CFR Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

3. The source-wide emissions of any single HAP shall not exceed 9.0 tons during any 12 consecutive month period. The source-wide emissions of combined HAP shall not exceed 22.5 tons during any 12 consecutive month period. [To preclude major source status for HAPs]

   Compliance Demonstration Method:
   The permittee shall demonstrate compliance with the source-wide HAP emissions limit by calculating the source-wide emissions monthly using the following equation:

$$E_{HAP}\left(\frac{tons}{month}\right) = \sum_{i=1}^{n} PW_i\left(\frac{tons}{month}\right) \times EF_i^*\left(\frac{lb}{tons}\right) \times \left(\frac{1 - CE_i}{2000\ \left(\frac{lb}{tons}\right)}\right)$$

   Where:
   i = Each emission point from which HAP is emitted;
   n = The total number of emission points from which HAP is emitted;
   E_{HAP}= Total monthly HAP emissions;
   PW_i = Process weight used at emission point i;
   CE_i = Control efficiency for controls used at emission point i;
   * The HAP emission factor shall be the number determined from AP-42, the most recent Division approved stack test, or Division approved value.
   EF_i = Emission factor for HAP at emission point i.

   The source-wide monthly HAP emission rate (tons/month) as calculated above shall be used to show compliance with the source-wide rolling 12-month limit.

$$HAP_{total} = \sum_{x=1}^{12} (E_{HAP})_x$$

   Where:
   E_{HAP}= Total monthly HAP emissions
   x = month

4. The permittee shall not violate, or interfere with the attainment or maintenance of, ambient air quality standards as specified in 401 KAR 53:010. [401 KAR 53:005, Section 1(3)]

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Compliance Demonstration Method:

a. Based upon the process rates, emission factors, control efficiencies, and other pertinent information provided in the application and supplemental information submitted by the source, and compliance with all emission limitations and control requirements in **SECTION B**, the Cabinet determines the affected facility to be in compliance with 401 KAR 53:010.

b. The permittee shall perform air dispersion modeling to demonstrate that the permittee does not cause or contribute to an exceedance to the National Ambient Air Quality Standards (NAAQS). Modeling shall be performed and the results shall be submitted to the Division for approval if:
   i. The NAAQS for lead is changed.
   ii. An average emission rate for each emission unit in **GROUP REQUIREMENTS 2. Emission Limitations (e)** exceeds the emission limit for any monthly average (lb/hr).
   iii. Any equipment is added, removed, modified, or reconstructed resulting in an increase of lead emissions.
   iv. Requested by the Division.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place as defined in this permit, and time of sampling or measurements;
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five (5) years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b-IV-2 and 1a-8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

3. In accordance with the requirements of 401 KAR 52:020, Section 3(1)h, the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
   b. To access and copy any records required by the permit:
   c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

   Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020, Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1, the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.

8. The permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken shall be submitted to the Regional Office listed on the front of this permit. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement does not identify a specific time frame for reporting deviations, prompt reporting, as required by Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, shall be defined as follows:
   a. For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made with 24 hours of the occurrence.
   b. For emissions of any regulated air pollutant, excluding those listed in F.8.a., that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
   c. All deviations from permit requirements, including those previously reported, shall be included in the semiannual report required by F.6.

9. Pursuant to 401 KAR 52:020, Title V permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
   a. Identification of the term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period.
   e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be submitted by January 30th of each year. Annual compliance certifications shall be sent to the following addresses:

Division for Air Quality
London Regional Office
875 S. Main Street
London, KY 40741

U.S. EPA Region 4
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth SW St.
Atlanta, GA 30303-8960

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within 30 days of the date the Kentucky Emissions Inventory System (KYEIS) emissions survey is mailed to the permittee.

SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements

   a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020, Section 3(1)(b), and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

   b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

   c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
      (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
      (2) The Cabinet or the United States Environmental Protection Agency (U. S. EPA) determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
      (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
      (4) New requirements become applicable to a source subject to the Acid Rain Program.

      Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

   d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

   e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:020, Section 3(1)(c)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

i. All emission limitations and standards contained in this permit shall be enforceable as a practical matter. All emission limitations and standards contained in this permit are enforceable by the U.S. EPA and citizens except for those specifically identified in this permit as state-origin requirements. [Section 1a-15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a-10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3) b].

l. This permit does not convey property rights or exclusive privileges [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.

n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3) d.].

o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3) a.].

SECTION G - GENERAL PROVISIONS (CONTINUED)

p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

q. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
(1) Applicable requirements that are included and specifically identified in this permit; and
(2) Non-applicable requirements expressly identified in this permit.

2. Permit Expiration and Reapplication Requirements

a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six (6) months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].

b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020, Section 8(2)].

3. Permit Revisions

a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the State Implementation Plan (SIP) or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).

b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

No construction is authorized by permit V-25-016.

SECTION G - GENERAL PROVISIONS (CONTINUED)

5. Testing Requirements

   a. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least thirty (30) days prior to the test.

   b. Pursuant to 401 KAR 50:045, Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.

   c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

6. Acid Rain Program Requirements

   a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

   b. The permittee shall comply with all applicable requirements and conditions of the Acid Rain Permit and the Phase II permit application (including the Phase II NOx compliance plan and averaging plan, if applicable) incorporated into the Title V permit issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

7. Emergency Provisions

   a. Pursuant to 401 KAR 52:020, Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
      (1) An emergency occurred and the permittee can identify the cause of the emergency;
      (2) The permitted facility was at the time being properly operated;

SECTION G - GENERAL PROVISIONS (CONTINUED)

(3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
(4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.1-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
(5) This requirement does not relieve the source of other local, state or federal notification requirements.

b. Emergency conditions listed in General Condition G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].

c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

8. Ozone Depleting Substances

a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
(1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
(2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
(3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
(4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.155.
(5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156 and 40 CFR 82.157.
(6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION G - GENERAL PROVISIONS (CONTINUED)

9. Risk Management Provisions

   a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to U.S. EPA using the RMP* eSubmit software.

   b. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None

APPENDIX A

COMPLIANCE ASSURANCE MONITORING PLAN (CAM) 40 CFR 64

I. Background

A. Emissions Unit

Description:	Oxide Mills 1, 2, & 3
Identification:	OM1, OM2, & OM3
Facility:	Superior Battery Mfg. Co., Inc. Russell Springs, KY

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.:	401 KAR 59:010, 40 CFR 60, Subpart KK, & 40 CFR 63, Subpart PPPPPP
Emission Limits:	
Opacity:	0%
Particulate Matter (PM):	3.59 lbs/hr
Monitoring Requirements:	Pressure drop-weekly, weekly visible emissions, performance testing every 5 years, monthly lead usage, monthly hours of operation, monthly natural gas usage

C. Control Technology

Pulse-Jet baghouse & HEPA after filter

II. Monitoring Approach

The key elements of the monitoring approach are presented in table below.

Monitoring Approach

I. Indicator	Visible emissions	Pressure drop
Measurement Approach	Visible observations made daily and method 9 test if applicable.	Pressure drop across the baghouse and HEPA filters are continuously measured using a differential pressure gauge.
II. Indicator Range	An excursion is defined as a method 9 reading of 0% or more. Excursions trigger an inspection, corrective action and a reporting requirement.	An excursion is defined as less than 0.1" w.c. or greater than 5" w.c.. Excursions trigger an inspection, corrective action and a reporting requirement.
III Performance Criteria A. Data Representativeness	Measurements are being made at the emission point. (Stack exhaust)	Pressure taps are located at the baghouse inlet and outlet. Same for HEPA filters. The gauges have a minimum accuracy of 0.01" w.c.
B. Verification of Operational Status	NA	NA
C. QA/QC Practices and Criteria	Method 9 reader is certified semi-annually.	Pressure gauges are calibrated semi-annually.
D. Monitoring Frequency	Daily	Continuously
E. Data Collection Procedures	Method 9 tests are performed by a certified reader.	Readings are taken daily manually.
F. Averaging period	NA	None

Monitoring Approach Justification

I. Background

Oxide Mill is a process in Lead Acid Battery Manufacturing where ingots of lead are melted down and poured into a reactor along with water. The lead is mixed and aerated causing the lead to oxidize. The oxidized lead is drawn out in out of the reactor in the air stream as lead oxide and enters a cyclone to remove the oxide from the air stream. The air then enters a baghouse where the finer particles drop out and the air is filtered before passing a secondary HEPA filter and exiting either stack OM1, OM2 or OM3. The captured lead oxide is blown into silos for storage.

The main air filter for the oxide mills are a reverse pulse jet baghouse which uses 18 oz. polyester bags with PTFE coating as the main filter. The air then moves through a HEPA after filter that is 99.997% efficient at 0.3 microns. Then the air exists a stack to atmosphere.

II. Rationale for Selection of Performance Indicators

Visible emissions observations were chosen as a performance indicator because during normal operation we maintain a 0% opacity. If a bypass were to occur, visible emissions out of our stack would indicate a malfunction and operations would cease until the problem was resolved.

Pressure drop across filters were chosen as a performance indicator because pressure rise would indicate filter clogging, blinding or the necessity to clean. Pressure drop could indicate a breach in the filter media allowing air to flow more freely, thus allowing particulate to bypass filtration.

III. Rationale for Selection of Indicator Ranges

The rationale for selecting 0% opacity as an indicator range of an excursion for PM is related to the more stringent requirements concerning lead in which any visible emission will trigger a corrective action. This being the case, a particulate excursion is very unlikely.

The rationale for selecting less than 0.1" w.c. and greater than 5" w.c. as an indicator range of an excursion for PM_{10} is drawn from historical in-house data, manufacturer and engineering recommendations. Air flow and the baghouse are integral to the lead oxide production process. Air flow is adjusted to optimize the lead oxide production so pressure drop will continuously vary. Typically, a baghouse with new filters that have around a 4:1 air to cloth ratio, will have about 0.5"-1" w.c. of pressure drop. The oxide mills when operating at optimal production speed typically have around 1.5:1 air to cloth ratio so the pressure drop can be significantly less especially when air flows are dropped even lower dictated by the desired output. So, if it is less than 0.1" w.c., then it could indicate improper installation of a bag, dropped bag or tare causing less pressure drop across the filters. If the pressure reaches 5" w.c. or more then it may indicate blinding of the bags, pulsator malfunctions or automation malfunctions causing the bags to become dirty enduring high pressures in which they may fail. HEPA filters have basically the same concept as bag filters with the exception that they are not cleanable.

I. Background

A. Emissions Unit

Description:	Pasting Lines 2 & 3
Identification:	PF1
Facility:	Superior Battery Mfg. Co., Inc. Russell Springs, KY

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation:	401 KAR 59:010, 40 CFR 60, Subpart KK, & 40 CFR 63, Subpart PPPPPP
Emission Limits:	
Opacity:	0%
Particulate Matter (PM):	16.74 lbs/hr (at maximum throughput)
Monitoring Requirements:	Visible emissions, pressure drop

C. Control Technology

Pulse-Jet baghouse & HEPA after filter

II. Monitoring Approach

The key elements of the monitoring approach are presented in table below.

Monitoring Approach

I. Indicator	Visible Emissions	Pressure Drop
Measurement Approach	Visible observations made daily and Method 9 test if applicable.	Pressure drop across the baghouse and HEPA filters are continuously measured using a differential pressure gauge.
II. Indicator Range	An excursion is defined as a Method 9 reading of 0% or more. Excursions trigger an inspection, corrective action and a reporting requirement.	An excursion is defined as less than 0.5" H_2O or greater than 5" H_2O except in the case of low air flow or new filters where pressure drop may be lower initially. Excursions trigger an inspection, corrective action and a reporting requirement.
III. Performance Criteria A. Data Representativeness	Measurements are being made at the emission point (stack exhaust).	Pressure taps are located at the baghouse inlet and outlet. Same for HEPA filters. The gauges have a minimum accuracy of 0.1" H_2O.
B. Verification of Operational Status	NA	NA
C. QA/QC Practices and Criteria	Method 9 reader is certified semi-annually.	Pressure gauges are calibrated semi-annually.
D. Monitoring Frequency	Daily	Continuously
E. Data Collection Procedures	Method 9 tests are performed by a certified reader.	Readings are taken daily manually.
F. Averaging period	NA	None

Monitoring Approach Justification

I. Background

Pasting is a process in Lead Acid Battery Manufacturing where lead oxide, fiber, expander, acid and water are mixed together to make a lead paste. The paste is then applied to a grid, enters a flash dry oven, stacked off and palletized for assembly. Local exhaust ventilation is used on the machinery, scrap drums and inspection tables. The exhaust is ducted to a reverse pulse jet baghouse which uses 16 oz. polyester bags with PTFE coating as the main filter. The air then moves through a HEPA after filter that is 99.997% efficient at 0.3 microns. Then the air exits a stack (PF1) to atmosphere.

II. Rationale for Selection of Performance Indicators

Visible emissions observations were chosen as a performance indicator because during normal operation 0% opacity is maintained. If a bypass were to occur, visible emissions out of our stack would indicate a malfunction and operations would cease until the problem was resolved.

Pressure drop across filters were chosen as a performance indicator because pressure rise would indicate filter clogging, blinding or the necessity to clean. Pressure drop could indicate a breach in the filter media allowing air to flow more freely, thus allowing particulate to bypass filtration.

III. Rationale for Selection of Indicator Ranges

The rationale for selecting 0% opacity as an indicator range of an excursion for PM is related to the more stringent requirements concerning lead in which any visible emission will trigger a corrective action. This being the case, a particulate excursion is very unlikely.

The rationale for selecting less than 0.5" and greater than 5" H_2O, except in the case of low air flow or new filters where pressure drop may be lower initially, as an indicator range of an excursion for PM is drawn from historical in-house data, manufacturer and engineering recommendations. Typically, a baghouse with new filters that has around a 4:1 air to cloth ratio, will have about 0.5"-1" of pressure drop. If it is less, then it could indicate improper installation of a bag, dropped bag or tare causing less pressure drop across the filters. Once the bags have been loaded with dust, they will typically not clean down to a pressure drop of less than 1" H_2O. If the pressure reaches 5" H_2O or more then it may indicate blinding of the bags, pulsator malfunctions or automation malfunctions causing the bags to become dirty enduring high pressures in which they may fail. HEPA filters have basically the same concept as bag filters with the exception that they are not cleanable and have an initial pressure drop at maximum capacity air flow of 1" H_2O.