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 52:030

Permittee Name:	**Clarios, LLC**
Mailing Address:	**8040 Bluegrass Drive, Florence, KY 41042**
Source Name:	**Clarios, LLC**
Mailing Address:	**8040 Bluegrass Drive, Florence, KY 41042**
Source Location:	**Boone County**
Permit ID:	**F-20-022 R1**
Agency Interest #:	**195**
Activity ID:	**APE20250001**
Review Type:	**Conditional Major, Construction / Operating**
Source ID:	**21-015-00028**
Regional Office:	**Florence Regional Office** **8020 Veterans Memorial Drive, Suite 110** **Florence, KY 41042** **(859) 525-4923**
County:	**Boone**
Application Complete Date:	**November 30, 2019**
Issuance Date:	**May 16, 2021**
Revision Date:	
Expiration Date:	**May 16, 2026**

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

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Permit Number	Permit type	Activity#	Complete Date	Issuance Date	Summary of Action
F-20-022	**Renewal**	**APE20190003, APE20200001**	**11/30/2019**	**5/16/2021**	**Renewal Permit, incl. new tanks, solvent**
F-20-022 R1	**Significant Revision**	**APE20250001, APE20210002**	**4/30/2025**		**Added Filter Exhaust Unit to PF 1V; Included 40 CFR 63, Subpart PPPPPP in Section I**

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 was 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 52:030, Federally-enforceable permits for non-major sources.

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.

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

Emission Unit 01 (09) Cold Solvent Cleaning

Injection Molding Parts Cleaning

Description:
Two petroleum naphtha parts cold cleaners are used to clean injection molding machine parts.
Control Device: Cover
Construction Commenced: 2007

PowerFrame® Parts and Die Cleaning

Description:
Three tanks. PowerFrame® parts and dies are cleaned with a water-based solvent. PowerFrame® machine parts are cleaned via a spray sink with a 55-gallon tank. Dies are processed using a 55-gallon cleaning tank and then through an 80-gallon coating tank using penetrating oil.
Control Device: Covers, closed during operation of degreasers and when idle
Construction Commenced: 2014 – Penetrating Oil Coating Tank;
2020 – Water-Based Solvent Cleaning Tanks

APPLICABLE REGULATIONS:
401 KAR 59:185, ***New solvent metal cleaning equipment***

1. **Operating Limitations:**
   a. The permittee shall install, maintain and operate the control equipment and observe at all times the operating requirements that apply to this type of degreaser as specified in 401 KAR 59:185, Section 4, Cold Cleaners. [401 KAR 59:185, Section 3]
      i. The cleaner shall be equipped with a cover. If the solvent volatility is greater than fifteen (15) mm Hg measured at 100°F or if the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with one (1) hand. [401 KAR 59:185, Section 4(1)(a)]
      ii. The cleaner shall be equipped with a drainage facility so that solvent that drains off parts removed from the cleaner will return to the cleaner. If the solvent volatility is greater than thirty-two (32) mm Hg measured at 100°F then the drainage facility shall be internal so that parts are enclosed under the cover while draining. The drainage facility may be external if the cabinet determines that an internal type cannot fit into the cleaning system. [401 KAR 59:185, Section 4(1)(b)]
      iii. A permanent, conspicuous label, summarizing the following operating requirements specified in 401 KAR 59:185, Section 4(2), shall be installed on or near the cleaner. [401 KAR 59:185, Section 4(1)(c)]
         1. Waste solvent shall not be disposed of or transferred to another party so that greater than twenty (20) percent by weight of the waste solvent can evaporate into the atmosphere. Waste solvent shall be stored only in covered containers. [401 KAR 59:185, Section 4(2)(a)]
         2. The degreaser cover shall be closed if not handling parts in the cleaner. [401 KAR 59:185, Section 4(2)(b)]
         3. Cleaned parts shall be drained for a minimum of fifteen (15) seconds, or until dripping ceases, whichever is longer. [401 KAR 59:185, Section 4(2)(c)]

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

4. The flushing of parts with a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. The solvent flow shall be directed downward to avoid turbulence at the air-solvent interface so as to prevent the solvent from splashing outside of the cold cleaner. [401 KAR 59:185, Section 4(2)(d)]
5. Work area fans shall be positioned so that air is not directed across the opening of the cold cleaner. [401 KAR 59:185, Section 4(2)(e)]
6. The use of an air-agitated solvent bath is prohibited. A pump-agitated solvent bath shall be operated so as to produce no observable splashing of the solvent against either the tank wall or the parts that are being cleaned. [401 KAR 59:185, Section 4(2)(f)]
7. The cold cleaner shall be free of all liquid leaks. Auxiliary cleaning equipment such as pumps, water separators, steam traps, or distillation units shall not have any visible leaks, tears, or cracks. [401 KAR 59:185, Section 4(2)(g)]
8. Spills that occur during solvent transfer shall be cleaned immediately. Wipe rags, or other absorbent equipment and materials, used to clean the spill shall be stored in a covered container for disposal unless storage of these items is prohibited by fire protection authorities. [401 KAR 59:185, Section 4(2)(h)]

iv. If used, the spray shall be a fluid stream (not a fine, atomized or shower type spray) and at a pressure which does not cause excessive splashing. [401 KAR 59:185, Section 4(1)(d)]

b. The following activity is prohibited:
The operation of a cold cleaner using a solvent with a vapor pressure that exceeds one (1.0) mm Hg (0.019 psi) measured at 20° C (68° F). [401 KAR 59:185, Section 4(3)(b)]

Compliance Demonstration Method:
Refer to **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

2. Emission Limitations:
N/A

3. Testing Requirements:
Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 4, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Division.

4. Specific Monitoring Requirements:

a. The permittee shall monitor solvent usage monthly (tons per month) based on the difference between: [401 KAR 52:030, Section 10]
   i. Volume of solvent degreaser purchased; and
   ii. Volume of solvent sent off-site for disposal/recycling.

b. The permittee shall monitor all parameters that are required in **1. Operating Limitations**. [401 KAR 52:030, Section 10]

c. Refer to SECTION F – MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS.

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

5. Specific Recordkeeping Requirements:

a. The permittee shall keep records of the volume of solvent degreaser purchased and solvent disposed. [401 KAR 52:030, Section 10]

b. The permittee shall calculate monthly the solvent degreaser usage (tons/month), by subtracting solvent purchased from solvent disposed. [401 KAR 52:030, Section 10]

c. The permittee shall record amount of solvent used monthly, and calculate monthly VOC emissions (tons/month), as follows: [401 KAR 52:030, Section 10]

$$V_e = \frac{(S_v \times \rho \times v_c)}{2000}$$

Where*:

V_e = VOCs emitted in tons/month
S_v = Solvent volume used in gallons/month
ρ = Density of solvent in lbs/gallon (Highest density from MSDS)
v_c = VOC content of solvent (% VOC content by mass from MSDS)
2000 = The lbs/ton conversion

* Note: If a % VOC content by mass for a formulation is not available in the MSDS, 100% VOC content shall be assumed.

d. The permittee shall maintain records for all materials used containing VOCs at emission unit 01(09). The total VOC emissions shall be summarized each month and a 12-month rolling total shall be calculated, and recorded (tons/year). [401 KAR 52:030, Section 10]

e. The permittee shall keep the Material Safety Data Sheet for each chemical used and these documents shall be available at all times. [401 KAR 52:030, Section 10]

f. The permittee shall maintain records for a minimum of five (5) years that include the following information for each solvent purchase: [401 KAR 59:185, Section 4(4)(b)]
   i. The name and address of the solvent supplier; [401 KAR 59:185, Section 4(4)(b)(1.)]
   ii. The date of the purchase; [401 KAR 59:185, Section 4(4)(b)(2.)]
   iii. The type of solvent; and [401 KAR 59:185, Section 4(4)(b)(3.)]
   iv. The vapor pressure of the solvent measured in mm Hg at 20° C (68° F). [401 KAR 59:185, Section 4(4)(b)(4.)]

g. Refer to SECTION F – MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS.

6. Specific Reporting Requirements:

Refer to SECTION F – MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS.

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

7. Specific Control Equipment Operating Conditions:
Refer to SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS.

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

Emission Unit 02(01F) PowerFrame® Lines and Pyrotek Dross Recovery System
(PF1) Lead Melt / Strip Cast
(PF2) Lead Melt / Strip Cast

Description: Melted lead is cast into continuous strips. Strips are stamped into grids, processed, and scraps and skimmed dross are recovered and re-melted. Lubricant is applied at the stamping press. Additionally, the emissions that are not captured by the ventilation system and routed through stack PF1 or PD1, are assumed to be emitted to atmosphere via roof ventilators. The building ventilation has four roof vents, designated as PF_1V through PF_4V. There are also twelve make-up air units (MAUs). The MAUs are divided into two banks of 6 units each designated by building location: MAU_E1V through MAU_E6V on the eastern portion of the roof and MAU_W1V through MAU_W6V on the western portion of the roof.

Maximum Capacity: 16 tons lead processed per hour, each line
Control Device PowerFrame® Lines: Hood capture w/central vacuum system and primary and secondary HEPA filters and pneumatic chip transfers w/filters for Lead and PM emissions. Lubricant VOC is uncontrolled
Control Device Pyrotek Dross Recovery System: Separate dust collector with primary/secondary filters for Lead and PM, additional HEPA filter exhaust unit (FEU) on vent PF_1V for lead and PM control
Construction Commenced: 2014

APPLICABLE REGULATIONS:
401 KAR 53:010, ***Ambient air quality standards***
401 KAR 59:010, ***New process operations***
401 KAR 63:002, Section 2(4)(ooooo), 40 C.F.R. 63.11421 through 63.11427, Tables 1 through 3 (Subpart PPPPPP), ***National Emission Standards for Hazardous Air Pollutants for Lead Acid Battery Manufacturing Area Sources***

STATE ORIGIN REQUIREMENTS:
401 KAR 63:020, ***Potentially hazardous matter or toxic substances,*** applies to lubricant, only.

1. **Operating Limitations:**
   a. The associated control devices shall be operated at all times when the emission point 02(01F) is in production (casting) mode. [401 KAR 59:010; 401 KAR 53:010]

      Compliance Demonstration Method:
      Refer to **7. Specific Control Equipment Operating Conditions.**

   b. The lead pot temperature shall be less than 900° F when the system is in maintenance mode, i.e. the dust collectors and system filters are not operating due to inspection, maintenance, and/or repair of said collectors and filters. Additionally, emissions of lead from the lead pot may be considered negligible during these periods of no-control when the lead pot temperature is kept below 900° F. [401 KAR 53:010]

      Compliance Demonstration Method:

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

The permittee shall monitor the temperature of the lead pot continuously (i.e. Check no less than once every 15 minutes) whenever the system is in maintenance mode, i.e. the dust collectors and system filters are not operating due to inspection, maintenance, and/or repair of said collectors and filters. The permittee shall return the control devices to operation as expeditiously as possible.

2. Emission Limitations:

a. The permittee shall meet the following limits in order to ensure the standards in 401 KAR 53:010, Ambient air quality standards, are met. [401 KAR 53:005, Section 1(3)]

Table B.1

Emission Points	Total Lead Emission Rate (lbs/hr)
02(01F)-PF1/PF2 PowerFrame® Line 1 & 2	0.054*
02(01F) vents: PF_1V- PF_4V**	0.007
Make-up Units: MUA_W1V - MUA_W6V	0.0045
Make-up Units: MUA_E1V - MUA_E6V	0.0045
Total	0.07

* Note: The lead emission limit for this point includes emissions due to the Pyrotek Dross Recovery System (Stack PD1), i.e. emissions PF1 + emissions PD1 < 0.054 lb/hr.

** Note: PF-1V has an additional HEPA filter exhaust unit (FEU) not present on the other 3 vents.

Compliance Demonstration Method:
The permittee shall install a HEPA FEU on PF_1V. Refer to **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, **7. Specific Control Equipment Operation Limitations** and **SECTION D.4.**

b. No person 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 for the equipment listed in Table B.2, below. [401 KAR 59:010, Section 3(1)(a)]

Table B.2

Emission Points
(PF1/PF2) PowerFrame® Line 1 & Line 2 (Stack PF1)
Pyrotek Dross Recovery System (Stack PD1)
PF_1V through PF_4V
MUA_W1V through MUA_W6V
MUA_E1V through MUA_E6V

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

c. For emissions from a control device or stack, the permittee shall 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 Appendix A to 401 KAR 59:010. [401 KAR 59:010, Section 3(2)]

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

i. For process weight rates ≤ 0.50 ton/hr: 2.34 lb/hr
ii. For process weight rates ≤ 30.00 tons/hr: $E = 3.59 * P^{0.62}$
iii. For process weight rates > 30.00 tons/hr $E = 17.31 * P^{0.16}$
Where:
E = the allowable PM emissions rate in lb/hr
P = the process weight rate in tons/hr

Compliance Demonstration Method:
Compliance is assumed when the control device and ventilation hood are operating and properly maintained to achieve the emissions limits established in **2. Emission Limitations (a)**. Also, refer to **4. Specific Monitoring Requirements** and **SECTION D**.

d. 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 source is in compliance with 401 KAR 63:020 based on the rates of emissions of airborne toxics provided in the original application submitted by the source and the inclusion of the FEU for PF_1V.

e. Refer to SECTION D – SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS.

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 Division.

b. The permittee shall perform testing of the **PowerFrame® Lines and Pyrotek Dross Recovery System** every 2.5 years for both Lead and PM.

c. The permittee shall record the following parameters during testing including: pressure drop for each emission capture system and control device incorporated into the stack testing event, flow velocity through the corresponding stack(s) and vents, and the presence of amperage (i.e., on/off status) of the representative exhaust vents tested as detailed in Table B.2 (other than for the Pyrotek Dross Recovery System [PD1]). Refer to **3. Testing Requirements (d)(ii)**.

d. The permittee shall record the production (casting) rate of the PF1 Lead Melt/Strip Cast and PF2 Lead Melt/Strip Cast lines during the stack test and document that the Pyrotek Dross Recovery System was in operation during the stack test. Test methods and procedures shall be as follows:
i. Applicable U.S. EPA Methods 1, 1A, 2, 2A-2D, 4, shall be performed and U.S. EPA Method 12 shall be used to determine the lead concentration and the volumetric flow rate (Q_{sda}) of the effluent gas.
ii. The permittee shall perform the testing under normal conditions that are representative of the source's operations and create the highest rate of emissions for all vents as required by

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

401 KAR 50:045, Section 5. A representative exhaust vent can be used for testing if all exhaust vents of each group have the same design characteristics. For representative testing, the following procedure shall be used:

1. The permittee shall test one representative vent from MUA_W1V through MUA_W6V exhaust vents and test one representative vent from MUA_E1V through MUA_E6V exhaust vents.
2. The permittee shall test at vent PF_1V, as well as at one of the three other vents (PF_2V, PF_3V, PF_4V) as representative of the three while dross recovery and vacuuming activities are occurring. Vent chosen as representative shall alternate each test period.

iii. The parameters required to be recorded in **3. Testing Requirements (c)**, during an emissions test approved by the Division, shall be verified to be within manufacturer's recommended operating parameters, as applicable. This verification provides part of the Compliance Demonstration Method 1, for the lead ambient air quality standard requirements in **SECTION D.4.** [401 KAR 53:005, Section 1]

iv. The permittee shall use U.S. EPA Method 5 for PM during stack test and exhaust vent test for each representative unit listed in Table B.2.

v. The permittee shall perform U.S. EPA Method 9 observations during each stack test to demonstrate compliance with 401 KAR 59:010.

4. **Specific Monitoring Requirements:**

a. The permittee shall meet the following monitoring requirements for any emissions point controlled by a fabric filter: [401 KAR 52:030, Section 10]

i. 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 the process is operating. An electronic data log shall continually record the pressure drop once every 15 minutes, at a minimum.

ii. The permittee shall inspect all filter units, primary and secondary as applicable, for proper operation semiannually. Preventive maintenance shall be performed in accordance with the manufacturer's recommendations. At a minimum for the primary filter system of each control device, the following components shall be inspected:

1. Filters;
2. Gaskets and Seals;
3. Filter Cleaning Mechanism.

b. For PowerFrame® Line 1, PowerFrame® Line 2, and the Dross Recovery System, the permittee shall perform a qualitative visual observation of the emissions from each stack and/or vent no less than monthly while the equipment associated with the stack and/or vent is operating. If any visible emissions from a stack and/or vent are observed (not including condensed water in the plume), the permittee shall determine the opacity using U.S. EPA Method 9. In lieu of determining the opacity using U.S. EPA 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 52:030, Section 10]

c. The permittee shall monitor the daily hours of operation and daily cast weight output (in tons), and the total monthly cast weight output (in tons), and the monthly volume of lubricant used in the stamping press. The production rate of PowerFrame® Lines 1 and 2 shall be based on a 6-hour average production output that is calculated hourly. [401 KAR 52:030, Section 10]

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

d. The permittee shall calculate the monthly and 12-month rolling total PM emissions due to operation of EU 02, the PowerFrame® Lines (PF1, PF2) and the Dross Recovery System. The permittee shall use the following formula to calculate emissions of particulate: [401 KAR 52:030, Section 10]

$$P_e = \left\lceil \frac{(EFP_{PF1} + EFP_{PF1V} + EFP_{PFV} + EFP_{MUVE} + EFP_{MUVW}) \times p_r}{2000} \right\rceil + PD1_{PM}$$

Where*:

P_e = Emissions of Particulate in tons/month
EFP_{PF1} = Emission factor for Particulate, in lbs/ton, from the most recent stack test for PF1
EFP_{PF1V} = Emission factor for Particulate, in lbs/ton, from the most recent stack test for the Vent PF_1V
EFP_{PFV} = Emission factor for Particulate, in lbs/ton, from the most recent stack test for the representative of PF_2V through PV_4V; multiplied by 3 to account for all 3 vents.
EFP_{MUVE} = Emission factor for Particulate, in lbs/ton, from the most recent stack test for the Representative Makeup Unit East (multiplied by 6 to account for all 6 units)
EFP_{MUVW} = Emission factor for Particulate, in lbs/ton, from the most recent stack test for the
p_r = Production rate, in tons per previous month, of cast lead strip produced
2000 = The lbs/ton conversion
$PD1_{PM}$ = Particulate emissions due to Dross Recovery System (PD1)
* Note that all emission factors are assumed to be post capture/post control.

e. The permittee shall calculate monthly and 12-month rolling total Lead emissions. The permittee shall use the following formula in calculating emissions of Lead (Pb): [401 KAR 52:030, Section 10]

$$Pb_e = \left\lceil \frac{(EFPb_{PF1} + EFPb_{PF1V} + EFPb_{PFV} + EFPb_{MUVE} + EFPb_{MUVW}) \times p_r}{2000} \right\rceil + PD1_{Pb}$$

Pb_e = Emissions of Lead in tons/month
$EFPb_{PF1}$ = Emission factor for Lead (Pb), in lbs/ton, from the most recent stack test for PF1/PV2
$EFPb_{PF1V}$ = Emission factor for Lead, in lbs/ton, from the most recent stack test for the Vent PF_1V
$EFPb_{PFV}$ = Emission factor for Lead, in lbs/ton, from the most recent stack test for the representative of PF_2V through PV_4V; multiplied by 3 to account for all 3 vents.
$EFPb_{MUVE}$ = Emission factor for Lead, in lbs/ton, from the most recent stack test for the Representative Makeup Unit East (multiplied by 6 to account for all 6 units)
$EFPb_{MUVW}$ = Emission factor for Particulate, in lbs/ton, from the most recent stack test for the Representative Makeup Unit East (multiplied by 6 to account for all 6 units)
p_r = Production rate, in tons per previous month, of cast lead strip produced
2000 = The lbs/ton conversion
$PD1_{Pb}$ = Lead emissions due to Dross Recovery System (PD1)

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

* Note that all emission factors are assumed to be post capture/post control.

f. The permittee shall calculate monthly and 12-month rolling total VOC emissions. The permittee shall use the following formula in calculating emissions of VOCs: [401 KAR 52:030, Section 10]

$$V_e = \frac{(S_v \times \rho_s \times v_{cs}) + (L_v \times \rho_l \times v_{cl})}{2000}$$

Where*:

V_e = VOCs emitted in tons/month
S_v = Solvent volume used in gallons/month
ρ_s = Density of solvent in lbs/gallon (Highest density from MSDS)
v_{cs} = VOC content of solvent (% VOC content by mass from MSDS)
L_v = Lubricant volume used in gallons/month
ρ_l = Density of lubricant in lbs/gallon (Highest density from MSDS)
v_{cl} = VOC content of lubricant (% VOC content by mass from MSDS)
2000 = The lbs/ton conversion

* Note that Material Safety Data Sheets (MSDS) shall be used for information, e.g. solvent density, % VOC content, etc., necessary in calculating VOC emissions for solvent and lubricant associated with and used in the process. If a % VOC content by mass for a formulation is not available in the MSDS, 100% VOC content shall be assumed.

g. The permittee shall monitor all exhaust fans, daily, for the presence of amperage (i.e., on/off status) while equipment is in production mode. [401 KAR 52:030, Section 10]

h. The permittee shall monitor the performance of the electronic data logger, i.e. ensure that it is functioning as required, in **4. Specific Monitoring Requirements (a)(i)**, on a daily basis while the PowerFrame® Lines are in production (casting) mode. [401 KAR 52:030, Section 10]

i. The permittee shall monitor the temperature of the lead pot continuously (i.e. Check every 15 minutes) whenever the system is in maintenance mode, i.e. the dust collectors and system filters are not operating due to inspection, maintenance, and/or repair of said collectors and filters. [401 KAR 52:030, Section 10]

j. Refer to SECTION F – MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS.

5. Specific Recordkeeping Requirements:

a. The permittee shall keep records of all required monitoring and calculations as required in **4. Specific Monitoring Requirements**. [401 KAR 52:030, Section 10]

b. The permittee shall keep records of the monthly qualitative visual observations and results of any U.S. EPA Method 9 opacity readings performed, including date, time, initials of observer, whether emissions were observed (yes/no) and any corrective actions taken. [401 KAR 52:030, Section 10]

c. The permittee shall maintain records of the following: [401 KAR 52:030, Section 10]

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

i. All maintenance performed on primary and secondary control device systems;
ii. All control device system filter inspections; and
iii. The date filters are replaced.

d. The permittee shall maintain records of monthly and 12-month rolling total calculations of VOCs, PM, and lead emissions. [401 KAR 52:030, Section 10]

e. The permittee shall maintain records of MSDS sheets necessary to support the VOC calculations. [401 KAR 52:030, Section 10]

f. The permittee shall keep a log of the daily exhaust fan operation verification (i.e. on/off status). [401 KAR 52:030, Section 10]

g. Refer to SECTION F – MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS.

6. Specific Reporting Requirements:

a. The permittee shall include, in the semi-annual report, any qualitative visual observations, and/or U.S. EPA Method 9 observations that result in corrective actions and/or equipment repairs or shutdowns. [401 KAR 52:030, Section 10]

b. The permittee shall include, in the semi-annual report, a summary of all monitoring required in **4. Specific Monitoring Requirements**. [401 KAR 52:030, Section 10]

c. The permittee shall report to the field office any time an associated baghouse fan is not operational when a PowerFrame® Line is in production (casting) mode. Refer to SECTION G – GENERAL PROVISIONS, item 8.a, specifically. [401 KAR 52:030, Section 10]

7. Specific Control Equipment Operating Conditions:

a. The permittee shall operate all control devices in accordance with manufacturer's specifications. [401 KAR 52:030, Section 10]

b. Preventive maintenance shall be performed on control devices in accordance with manufacturer's specifications. The control devices shall be inspected on a semi-annual basis for proper operation of the following: [401 KAR 52:030, Section 10]
i. Cleaning device to release dust cake from bags;
ii. Fans and equipment; and
iii. Pressure drop measuring system.

c. Refer to SECTION E – SOURCE CONTROL EQUIPMENT REQUIREMENTS.

d. The permittee shall continuously operate all baghouse fans when EU 02 (01F) is in production (casting) mode to assure capture of emissions. Refer to SECTION D – SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS.

e. The permittee shall install, maintain, and operate a HEPA filter exhaust unit (FEU) on vent PF_1V according to the manufacturer's specifications. [401 KAR 52:030, Section 10]

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

f. For the HEPA FEU on vent PF_1V, the permittee shall monitor the pressure drop across the FEU pre-filter and the HEPA filter. The permittee shall, at a minimum, change the pre-filter when the pressure drop exceeds 2" water gauge (wg) and change the HEPA filter when the pressure drop exceeds 3" wg. [401 KAR 52:030, Section 10]

8. Compliance Schedule:

Refer to SECTION I – COMPLIANCE SCHEDULE for requirements pursuant to 40 CFR 63, Subpart PPPPPP with future compliance dates.

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

Emission Unit 03 (01C, 02C) Indirect Heat Exchangers

Description:
Two (2) lead melt pot burners:
Heat Input Capacity: 4.69 MMBtu/hr each.

Three (3) Make-up units:
Heat Input Capacity: 3.0 MMBTU/hr, each

Primary Fuel: Natural Gas
Control Device: None
Construction Commenced: 2014

Emission Unit 12 Grid Steam Boiler #1

Description: A natural gas-fired boiler used to generate steam for cleaning finished PowerFrame® lead grids to customer specifications.

Heat Input Capacity:	1.08 MMBtu/hr
Fuel:	Natural Gas
Construction Commenced:	January 2022
Control Device:	None

Emission Unit 13 Grid Steam Boiler #2

Description: A natural gas-fired boilers used to generate steam for cleaning finished PowerFrame® lead grids to customer specifications.

Heat Input Capacity:	1.08 MMBtu/hr
Fuel:	Natural Gas
Construction Commenced:	January 2022
Control Device:	None

APPLICABLE REGULATIONS:
401 KAR 59:015, ***New indirect heat exchangers***

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

1. **Operating Limitations**:
   During a startup period or shutdown period, the permittee shall comply with the work practice standards established in 401 KAR 59:015, Section 7. [401 KAR 59:015, Section 7]
   a. The permittee shall comply with 401 KAR 50:055, Section 2(5); [401 KAR 59:015, Section 7(1)(a)]

   b. The frequency and duration of startup periods or shutdown periods shall be minimized by the affected facility; [401 KAR 59:015, Section 7(1)(b)]

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

c. All reasonable steps shall be taken by the permittee to minimize the impact of emissions on ambient air quality from the affected facility during startup periods and shutdown periods; [401 KAR 59:015, Section 7(1)(c)]

d. The actions, including duration of the startup period, of the permittee during startup and shutdown periods, shall be documented in signed, contemporaneous logs or other relevant evidence; [401 KAR 59:015, Section 7(1)(d)]

e. Startups and shutdowns shall be conducted according to either: [401 KAR 59:015, Section 7(1)(e)]
   i. The manufacturer's recommended procedures; or [401 KAR 59:015, Section 7(1)(e)1.]
   ii. Recommended procedures for a unit of similar design, for which manufacturer's recommended procedures are available, as approved by the cabinet based on documentation provided by the permittee. [401 KAR 59:015, Section 7(1)(e)2.]

Compliance Demonstration Method:
Compliance shall be demonstrated according to **5. Specific Recordkeeping Requirements** b.

2. Emission Limitations:

a. The permittee shall not cause emissions of particulate matter in excess of:
   i. For EU 03, 0.49 lb/MMBtu actual heat input, each; [401 KAR 59:015, Section 4(1)(c)]
   ii. For EU 12, 0.47 lb/MMBtu actual heat input; [401 KAR 59:015, Section 4(1)(c)]
   iii. For EU 13, 0.47 lb/MMBtu actual heat input. [401 KAR 59:015, Section 4(1)(c)]

b. The permittee shall not cause emissions of particulate matter in excess of 20 percent opacity, except: [401 KAR 59:015, Section 4(2)]
   i. A maximum of 40 percent opacity shall be allowed for a maximum of 6 consecutive minutes in any 60 consecutive minutes during fire box cleaning or soot blowing; and [401 KAR 59:015, Section 4(2)(b)]
   ii. For emissions from an affected facility caused by building a new fire, emissions during the period required to bring the boiler up to operating conditions shall be allowed, if the method used is recommended by the manufacturer and the time does not exceed the manufacturer's recommendations. [401 KAR 59:015, Section 4(2)(c)]

c. The permittee shall not cause emissions of gases that contain sulfur dioxide in excess of:
   i. For EU 03, 2.34 lbs/MMBtu actual heat input, each; [401 KAR 59:015, Section 5(1)(c)(2)(b)]
   ii. For EU 12, 2.23 lbs/MMBtu actual heat input; [401 KAR 59:015, Section 5(1)(c)(2)(b)]
   iii. For EU 13, 2.23 lbs/MMBtu actual heat input. [401 KAR 59:015, Section 5(1)(c)(2)(b)]

Compliance Demonstration Method:
Compliance with the 401 KAR 59:015 emission standards is assumed. [401 KAR 50:045, Section 4(3)(c)1.]

d. Persons responsible for a source from which hazardous matter or toxic substances may be emitted shall provide the utmost care and consideration, in the handling of these materials, to

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

the potentially harmful effects of the emissions resulting from such activities. No owner or operator shall 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. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the cabinet. [401 KAR 63:020, Section 3]

Compliance Demonstration Method:
Based upon the emission rates of toxics and hazardous air pollutants determined by the Cabinet using information provided in the application and supplemental information submitted by the source, the Cabinet determines the affected facility to be in compliance with 401 KAR 63:020.

3. **Testing Requirements**:
Performance testing using the reference methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet. [401 KAR 50:045, Section 1, and 401 KAR 59:005, Section 2(2)]

4. **Specific Monitoring Requirements**:
The permittee shall monitor the amount of natural gas combusted, in MMscf, on a monthly basis. [401 KAR 52:030, Section 10]

5. **Specific Recordkeeping Requirements**:
   a. The permittee shall maintain records of the amount of natural gas combusted, in MMscf, on a monthly basis. [401 KAR 52:030, Section 10]

   b. The permittee shall keep records of the manufacturer's recommended procedures for startup and shutdown, any instance in which the recommended procedures were not followed, and any corrective action taken. [401 KAR 52:030, Section 10]

6. **Specific Reporting Requirements:**
Refer to SECTION F – MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:030, 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. Injection Molding machines	401 KAR 63:010
a) 29 machines - East Side	
b) 22 machines - West Side	
2. Polypropylene pellet blenders	401 KAR 59:010
a) 3 blenders - East Side	
b) 3 blenders - West Side	
3. Natural gas-fired units	401 KAR 59:010;
a) 1 Boiler at 0.95 MMBtu/hr	401 KAR 63:020
b) 2 Shrink Wrap Heaters at 0.725 MMBtu/hr each	
c) 3 Grid Ovens at 0.7 MMBtu/hr	
d) 1 Pyrotek Dross Pot Heater at 0.545 MMBtu/hr	
e) 1 Roof Top Unit at 0.125 MMBtu/hr	
f) 5 Radiant Heaters at 0.01 MMBtu/hr each	
g) 12 Unit Heaters at 0.165 MMBtu/hr each	
4. Wastewater evaporator	401 KAR 59:010
5. 8 Polypropylene Silos	
6. Polypropylene Receivers	401 KAR 59:010
a) 6 Roof Receivers - East Side	
b) 12 Receivers - West Side	
7. Central Vacuum Systems (CVS)	401 KAR 59:010
a) 1 CVS - East Side	
b) 1 CVS - West Side	
8. Cooling Towers	401 KAR 59:010
a) 1 Two-Celled Tower East Side	
b) 1 One-Celled Tower West Side	
9. Mega Grinders	401 KAR 59:010
a) 1 grinder - East Side	
b) 2 grinders - West Side	
10. 7 Mini Grinders East Side	401 KAR 59:010

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

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, 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. Particulate Matter (PM), Sulfur Dioxide (SO_2), Opacity, and Lead (Pb) emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

3. Compliance with annual emissions and processing limitations imposed under 401 KAR 52:030, and contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

4. In accordance with **401 KAR 53:010, Ambient air quality standards** for Lead, the permittee shall not cause or contribute to an ambient air impact, which is defined as the portion of atmosphere, external to buildings, to which the general public has access, that exceeds the Ambient Air Quality Standards. The permittee shall not cause or contribute to an exceedance of these standards, including the lead standard of 0.15 $\mu g/m^3$ arithmetic mean concentration over a three-month period. Plant-wide lead emissions shall not exceed 0.31 tons/year on a rolling 12-month basis. [401 KAR 53:005, Section 1]

   Compliance Demonstration Method:
   1) The permittee shall operate and maintain all production equipment and control devices in accordance with all manufacturer's suggested operating parameters and any parameter established during the stack test (i.e. casting rate maximum) as approved by the Division. As a part of each stack test performed at the facility, the permittee shall verify that manufacturer's suggested operating parameters for the PowerFrame® Lines and Pyrotek Dross Recovery System have been followed during the test. Refer to SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS, Emission Unit 02(01F) PowerFrame® Lines and Pyrotek Dross Recovery System, **3. Testing Requirements**.
   2) The permittee shall have all baghouse fans in operation at all times while EU 02(01F) is in production (casting) mode as per the ACGIH analysis submitted with the complete application. Refer to **3. Testing Requirements**, **4. Specific Monitoring** and **5. Specific Recordkeeping Requirements** in SECTION B – EMISSION POINTS, EMISSSIONS UNITS, APPLICABLE REGUALTIONS, AND OPERATING CONDITIONS, for Emission Unit 02(01F) PowerFrame® Lines and Pyrotek Dross Recovery System.
   3) The permittee shall calculate the monthly and 12-month rolling facility-wide lead emissions and compare them to the limit above.

5. The permittee shall not exceed source-wide PM and PM_{10} emissions of 90.0 tons per year on a rolling 12-month basis. [To preclude 401 KAR 52:020]

   Compliance Demonstration Method:
   To preclude a major source classification per 401 KAR 52:020, the permittee shall provide reasonable assurance that the PM and PM_{10} emission limitations are met by monitoring and

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

maintaining records of the amount of process materials added and the rolling 12-month total emissions calculated monthly according to the following equations:

a. The permittee shall calculate the PM and PM_{10} emissions monthly using the following equation:

$$E_{PMi} = \sum_{n=1}^{N} \frac{P_i \times EF_{PMn}}{2000\ (\frac{lb}{ton})}$$

Where:

E_{PMi} = Facility-wide actual particulate emissions for month *i* (tons/month);
P_i = Actual throughput for month *i* (units/month);
EF_{PMn} = The overall controlled particulate emission factor as approved by the Division for process n (pounds/unit); and
N = Total number of processes

b. The permittee shall calculate the 12-month rolling total for PM and PM_{10} emissions using the following equation:

$$\text{Total particulate matter (PM/PM10) emissons (tons/year)} = \sum_{i=1}^{12} E_{PMi}$$

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 Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 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 [401 KAR 52:030, Section 3(1)(f)1a, and Section 1a-7 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].

3. In accordance with the requirements of 401 KAR 52:030, Section 3(1)f, 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 Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, 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 52:030, Section 22. If continuous

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

emission and opacity monitors are required by regulation or this permit, data shall be 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 Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, 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 within 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 52:030, 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 in accordance with the following requirements:
   a. Identification of each 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 Division for Air Quality, Florence Regional Office, 8020 Veterans Memorial Drive, Suite 110, Florence, KY 41042.

10. In accordance with 401KAR 52:030, Section 3(1)(d), 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. If a KYEIS emissions survey is not mailed to the permittee, then the permittee shall comply with all other emissions reporting requirements in this permit.

11. The Cabinet may authorize the temporary use of an emission unit to replace a similar unit that is taken off-line for maintenance, if the following conditions are met:
    a. The owner or operator shall submit to the Cabinet, at least ten (10) days in advance of replacing a unit, the appropriate Forms DEP7007AI to DD that show:
        (1) The size and location of both the original and replacement units; and
        (2) Any resulting change in emissions;
    b. The potential to emit (PTE) of the replacement unit shall not exceed that of the original unit by more than twenty-five (25) percent of a major source threshold, and the emissions from the unit shall not cause the source to exceed the emissions allowable under the permit;
    c. The PTE of the replacement unit or the resulting PTE of the source shall not subject the source to a new applicable requirement;
    d. The replacement unit shall comply with all applicable requirements; and
    e. The source shall notify Regional office of all shutdowns and start-ups.
    f. Within six (6) months after installing the replacement unit, the owner or operator shall:
        (1) Re-install the original unit and remove or dismantle the replacement unit; or
        (2) Submit an application to permit the replacement unit as a permanent change.

SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements

   a. The permittee shall comply with all conditions of this permit. A noncompliance shall be a violation of 401 KAR 52:030, 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 the termination, revocation and reissuance, revision, or denial of a permit [Section 1a-2 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, 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-5 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].

   c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:030, Section 18. 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 52:030, 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.

      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- 6 and 7 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].

   e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:030, Section 3(1)(c)].

   f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect

SECTION G - GENERAL PROVISIONS (CONTINUED)

information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:030, 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-11 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, 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-3 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, 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-12 of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030, 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-9 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, 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 52:030, Section 11(3)].

l. This permit does not convey property rights or exclusive privileges [Section 1a-8 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, 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.

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.

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.

SECTION G - GENERAL PROVISIONS (CONTINUED)

q. Pursuant to 401 KAR 52:030, 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 52:030, Section 12].

b. The authority to operate granted through this permit 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 52:030, Section 8(2)].

3. Permit Revisions

a. Minor permit revision procedures specified in 401 KAR 52:030, Section 14(3), 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 52:030, 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

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, a filter exhaust unit (control device) associated with PF_1V of emission unit 02 in accordance with the terms and conditions of this permit (F-20-022 R1)

a. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

SECTION G - GENERAL PROVISIONS (CONTINUED)

b. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, notification of the following:
   (1) The date when construction commenced.
   (2) The date of start-up of the affected facilities listed in this permit.
   (3) The date when the maximum production rate specified in the permit application was achieved.

c. Pursuant to 401 KAR 52:030, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.

d. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the final permit. Pursuant to 401 KAR 50:055, Section 2(1)(a), an owner or operator of any affected facility subject to any standard within the administrative regulations of the Division for Air Quality shall demonstrate compliance with the applicable standard(s) within sixty (60) days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start-up of such facility. Pursuant to 401 KAR 52:030, Section 3(3)(c), sources that have not demonstrated compliance within the timeframes prescribed in 401 KAR 50:055, Section 2(1)(a), shall operate the affected facility only for purposes of demonstrating compliance unless authorized under an approved compliance plan or an order of the cabinet.

d. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. Testing must also be conducted in accordance with General Provisions G.5 of this permit.

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

SECTION G - GENERAL PROVISIONS (CONTINUED)

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

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.

7. Emergency Provisions

a. Pursuant to 401 KAR 52:030, Section 23(1), an emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other 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;
   (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) The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two (2) working days of the time when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken.
   (5) Notification of the Division does not relieve the source of any other local, state or federal notification requirements.

b. Emergency conditions listed in General Provision G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:030, Section 23(3)].

c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:030, Section 23(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

SECTION G - GENERAL PROVISIONS (CONTINUED)

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 82.166.
(5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
(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*.

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

This section contains compliance schedule requirements as specified in Section 1c of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26.

1. **401 KAR 63:002, Section 2(4)(ooooo), 40 C.F.R. 63.11421 through 63.11427, Tables 1 through 3 (Subpart PPPPPP), National Emission Standards for Hazardous Air Pollutants for Lead Acid Battery Manufacturing Area Sources** was revised on February 23, 2023 to include lead acid battery component manufacturing plants in the regulated source category. Lead acid battery component manufacturing plant existing affected sources must achieve compliance with the applicable provisions in 40 CFR 63, Subpart PPPPPP no later than February 23, 2026. This significant revision does not include the full requirements of the NESHAP but they will be added at a later date closer to the time that the initial compliance demonstration is required. The permittee will submit a permit revision incorporating the applicable standards prior to the compliance date. The following requirements are predicated on the compliance date:
   A. Beginning no later than the applicable compliance date specified in 40 CFR 63.11422(i), the permittee must meet each emission limit in table 1 to 40 CFR 63, Subpart PPPPPP and each opacity standard in table 2 to 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 recordkeeping and electronic reporting requirements in 40 CFR 63.11424(a)(6) and (7) and (b). [40 CFR 63.11423(a)(2)]
   B. Beginning no later than the applicable compliance date specified in 40 CFR 63.11422(i), the permittee must comply with the monitoring requirements in 40 CFR 63.11423(e), the recordkeeping and electronic reporting requirements in 40 CFR 63.11424(a)(1) through (5) and (c) through (f), and the definition of lead reclamation in 40 CFR 63.11426. [40 CFR 63.11423(a)(2)]