Commonwealth of Kentucky
Division for Air Quality

STATEMENT OF BASIS / SUMMARY

Conditional Major, Operating
PERMIT ID: F-22-007

Eminence Speaker LLC
838 Mulberry Pike
Eminence, KY 40019

May 23, 2022
Reviewer: Ibrahim Al-Burai

Source ID: 21-103-00025
Agency Interest #: 5523
Activity ID: APE20210002

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SECTION 1 - SOURCE DESCRIPTION

SIC Code and description: 3651, Household Audio and Video Equipment.

Single Source Det.  ☒ Yes  ☐ No  If Yes, Affiliated Source AI:

Source-wide Limit  ☒ Yes  ☐ No  If Yes, See Section 4, Table A

28 Source Category  ☒ Yes  ☐ No  If Yes, Category:

County: Henry
Nonattainment Area  ☒ N/A  ☐ PM10  ☐ PM2.5  ☐ CO  ☐ NOx  ☐ SO2  ☐ Ozone  ☐ Lead
If yes, list Classification:

PTE* greater than 100 tpy for any criteria air pollutant  ☒ Yes  ☐ No
If yes, for what pollutant(s)?
☐ PM10  ☐ PM2.5  ☐ CO  ☐ NOx  ☐ SO2  ☐ VOC

PTE* greater than 250 tpy for any criteria air pollutant  ☒ Yes  ☐ No
If yes, for what pollutant(s)?
☐ PM10  ☐ PM2.5  ☐ CO  ☐ NOx  ☐ SO2  ☐ VOC

PTE* greater than 10 tpy for any single hazardous air pollutant (HAP)  ☒ Yes  ☐ No
If yes, list which pollutant(s):

PTE* greater than 25 tpy for combined HAP  ☒ Yes  ☐ No

*PTE does not include self-imposed emission limitations.

Description of Facility:
Eminence Speaker, LLC is an Audio and Video Equipment Manufacturing Facility.
SECTION 2 – CURRENT APPLICATION AND EMISSION SUMMARY FORM

Permit Number: F-22-007  Activity: APE20210002

Application Received: 11/30/2021  Application Complete: 1/24/2022

Permit Action:  ☒ Initial  ☐ Renewal  ☐ Significant Rev.  ☐ Minor Rev.  ☐ Administrative
Construction/Modification Requested?  ☐ Yes  ☒ No

Previous 502(b)(10) or Off-Permit Changes incorporated with this permit action  ☒ Yes  ☐ No
APE20210001: Elimination of Caustic Rinse Base (EU#01a) under EU01
APE20200001: Using a Rust-Oleum aerosol solvent based paint product (Painter’s Touch 2X
Ultra Cover Gloss Clear Spray) at EP04
APE20180001: Addition of a 1.5 MMBtu/hr natural gas fired oven and the addition of a
hazardous air pollutant to the E-Coat paint.

Description of Action:
Renewal permit only.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>2020 Actual (tpy)</th>
<th>Previous PTE F-17-016(tpy)</th>
<th>Change (tpy)</th>
<th>Revised PTE F-22-007 (tpy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>0.417</td>
<td>1.790</td>
<td>0.541</td>
<td>2.331</td>
</tr>
<tr>
<td>NOX</td>
<td>0.525</td>
<td>2.131</td>
<td>0.644</td>
<td>2.775</td>
</tr>
<tr>
<td>PT</td>
<td>0.012</td>
<td>0.410</td>
<td>0.409</td>
<td>0.819</td>
</tr>
<tr>
<td>PM10</td>
<td>0.012</td>
<td>0.410</td>
<td>0.409</td>
<td>0.819</td>
</tr>
<tr>
<td>PM2.5</td>
<td>0.012</td>
<td>0.410</td>
<td>-0.12</td>
<td>0.398</td>
</tr>
<tr>
<td>SO2</td>
<td>0.006</td>
<td>0.013</td>
<td>0.004</td>
<td>0.017</td>
</tr>
<tr>
<td>VOC</td>
<td>8.246</td>
<td>78.708</td>
<td>-5.817</td>
<td>72.893</td>
</tr>
<tr>
<td>Lead</td>
<td>0.00000024</td>
<td>1.06537E-05</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Greenhouse Gases (GHGs)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>2020 Actual (tpy)</th>
<th>Previous PTE F-17-016(tpy)</th>
<th>Change (tpy)</th>
<th>Revised PTE F-22-007 (tpy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide</td>
<td>584.660</td>
<td>2556.890</td>
<td>772.942</td>
<td>3329.831</td>
</tr>
<tr>
<td>Methane</td>
<td>0.011</td>
<td>0.049</td>
<td>0.015</td>
<td>0.064</td>
</tr>
<tr>
<td>Nitrous Oxide</td>
<td>0.011</td>
<td>0.0469</td>
<td>0.014</td>
<td>0.061</td>
</tr>
<tr>
<td>CO2 Equivalent (CO2e)</td>
<td>588.124</td>
<td>2572.084</td>
<td>777.534</td>
<td>3349.618</td>
</tr>
</tbody>
</table>

Hazardous Air Pollutants (HAPs)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>2020 Actual (tpy)</th>
<th>Previous PTE F-17-016(tpy)</th>
<th>Change (tpy)</th>
<th>Revised PTE F-22-007 (tpy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>0</td>
<td>3.548</td>
<td>0</td>
<td>3.548</td>
</tr>
<tr>
<td>Acrylic Acid</td>
<td>0</td>
<td>0.560</td>
<td>0</td>
<td>0.559</td>
</tr>
<tr>
<td>Dibutyl Phthalate</td>
<td>0</td>
<td>4.914</td>
<td>0</td>
<td>4.914</td>
</tr>
<tr>
<td>Ethyl Benzene</td>
<td>0</td>
<td>3.440</td>
<td>0.103</td>
<td>3.543</td>
</tr>
<tr>
<td>Hexane; N-Hexane</td>
<td>0</td>
<td>2.346</td>
<td>0</td>
<td>2.345</td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>0</td>
<td>0.777</td>
<td>1.026</td>
<td></td>
</tr>
<tr>
<td>Methylene Diphenyl Diisocyanate</td>
<td>0</td>
<td>1.475</td>
<td>0</td>
<td>1.474</td>
</tr>
<tr>
<td>Toluene</td>
<td>0</td>
<td>1.840</td>
<td>0</td>
<td>1.840</td>
</tr>
<tr>
<td>Xylenes (Total)</td>
<td>0</td>
<td>9.337</td>
<td>0.258</td>
<td>9.595</td>
</tr>
<tr>
<td>Combined HAPs:</td>
<td>0</td>
<td>25.191</td>
<td>0.609</td>
<td>25.800</td>
</tr>
</tbody>
</table>
### SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Limit or Standard</th>
<th>Regulatory Basis for Emission Limit or Standard</th>
<th>Emission Factor Used and Basis</th>
<th>Compliance Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single/Combined HAPs</td>
<td>9/22.5 tpy</td>
<td>To Preclude 401 KAR 52:020</td>
<td>SDS</td>
<td>Recordkeeping, 12 month rolling total</td>
</tr>
</tbody>
</table>

**Initial Construction and/or Modification Date:** 01/1992

**Process Description:**

**EP 01:** Electrostatic Painting Operations.
- After pretreatment, metal parts are dipped into an electrocoat bath and rinsed in deionized water.
- Maximum Capacity: 0.629 gal/hr.

**EP 02:** 1. Activator and Solvent Application.
- Maximum Capacity: 0.81 lbs/hr.
- Toluene
  - Maximum Capacity: 96 lbs/hr.
- 3. SP-7080 Primer
  - Maximum Capacity: 36 lbs/hr.

**EP 05:** Adhesive Application.
- Adhesives are applied with a brush.
- Maximum Capacity: 0.31 gal/hr.

**EP 06:** Epoxy and Resin Application.
- Epoxy and resin are applied with a brush.
- Maximum Capacity: 11.2 lbs/hr.

**Applicable Regulation:**
401 KAR 63:020, Potentially Hazardous Matter or Toxic Substances, applicable to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

**Non-applicable Regulation:**
401 KAR 59:225, *New miscellaneous metal parts and products surface coating operations*, does not apply since the source is not in non-attainment area and not part of a major source.

(rrr) 40 C.F.R. 63.3880 to 63.3981, Tables 1 to 4, and Appendix A (Subpart MMMM), National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products, does not apply since the source is not a major source.

(uuu) 40 C.F.R. 63.4480 to 63.4581, Tables 1 to 4, and Appendix A (Subpart PPPP), National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products, does not apply.
**Emission Unit #1,2,5 &6 E-coat paint, activator/solvent, adhesives & Epoxy and Resin**

since the source does not use plastic parts and is not a major source.

**Precluded Regulations:**
401 KAR 52:020, Title V Permits.

**Comments:**
- EU#01a, Caustic Rinse Base has been removed from the unit.
- The facility has an in-house repair shop where some welding is done for the maintenance of the equipment only and not as part of the manufacturing process and, thus, is considered trivial: [http://air.ky.gov/SiteCollectionDocuments/TrivialActivities.pdf](http://air.ky.gov/SiteCollectionDocuments/TrivialActivities.pdf)

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**Emission Unit #4 High Gloss Painting Operations**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Limit or Standard</th>
<th>Regulatory Basis for Emission Limit or Standard</th>
<th>Emission Factor Used and Basis</th>
<th>Compliance Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>2.34 lbs/hr</td>
<td>401 KAR 59:010, Section 3(2)</td>
<td>SDS/ Mass Balance</td>
<td>Fabric Filter 70% C.E.</td>
</tr>
<tr>
<td>Opacity</td>
<td>20% opacity</td>
<td>401 KAR 59:010, Section 3(1)</td>
<td>N/A</td>
<td>Weekly Visual Observation</td>
</tr>
<tr>
<td>Single/Combined HAPs</td>
<td>9/22.5 tpy</td>
<td>To Preclude 401 KAR 52:020</td>
<td>SDS</td>
<td>Recordkeeping, 12 month rolling total</td>
</tr>
</tbody>
</table>

**Initial Construction and/or Modification Date:** 01/1992

**Process Description:**
EP 04: 1. High gloss application  
   Maximum Capacity: 2.4 lbs/hr.  
   2. Rust-Oleum  
   Maximum Capacity: 2.35 lbs/hr.

**Applicable Regulation:**
401 KAR 59:010, New process operations. Applicable with respect to particulate emissions to each affected facility commenced on or after July 2, 1975. 
401 KAR 63:020, Potentially Hazardous Matter or Toxic Substances, applicable to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

**Precluded Regulations:**
401 KAR 52:020, Title V Permits.

**Comments:**
NA
**SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS (CONTINUED)**

**Testing Requirements\Results**

<table>
<thead>
<tr>
<th>Emission Unit(s)</th>
<th>Control Device</th>
<th>Parameter</th>
<th>Regulatory Basis</th>
<th>Frequency</th>
<th>Test Method</th>
<th>Permit Limit</th>
<th>Test Result</th>
<th>Thruput and Operating Parameter(s) Established During Test</th>
<th>Activity Graybar</th>
<th>Date of last Compliance Testing</th>
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<tbody>
<tr>
<td>N/A</td>
<td></td>
<td></td>
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</table>

Footnotes:
SECTION 4 – SOURCE INFORMATION AND REQUIREMENTS

Table A - Group Requirements:

<table>
<thead>
<tr>
<th>Emission and Operating Limit</th>
<th>Regulation</th>
<th>Emission Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.0 tpy of individual HAP emissions</td>
<td>To preclude major source status for HAP</td>
<td>Source-wide</td>
</tr>
<tr>
<td>22.5 tpy of combined HAP emissions</td>
<td>To preclude major source status for HAP</td>
<td>Source-wide</td>
</tr>
</tbody>
</table>

Table B - Summary of Applicable Regulations:

<table>
<thead>
<tr>
<th>Applicable Regulations</th>
<th>Emission Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>401 KAR 59:010, New process operations.</td>
<td>EU 04</td>
</tr>
<tr>
<td>401 KAR 63:020, Potentially hazardous matter or toxic substances</td>
<td>EU 01, 02,04,05 &amp; 06</td>
</tr>
</tbody>
</table>

Table C - Summary of Precluded Regulations:

<table>
<thead>
<tr>
<th>Precluded Regulations</th>
<th>Emission Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>401 KAR 52:020, Title V Permits.</td>
<td>Source-wide</td>
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</tbody>
</table>

Table D - Summary of Non Applicable Regulations:

<table>
<thead>
<tr>
<th>Non Applicable Regulations</th>
<th>Emission Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

Air Toxic Analysis

401 KAR 63:020, Potentially Hazardous Matter or Toxic Substances
The Division for Air Quality (Division) has performed AERMOD on March 28, 2017 of potentially hazardous matter or toxic substances (Acrylic Acid and Toluene) and SCREEN View on January 10, 2022 of (Ethyl Benzene, Hexane; N-Hexane, Methyl Isobutyl Ketone, Methylene Diphenyl Diisocyanate, & Xylene) that may be emitted by the facility based upon the process rates, material formulations, stack heights and other pertinent information provided by the applicant. Based upon this information, the Division has determined that the conditions outlined in this permit will assure compliance with the requirements of 401 KAR 63:020.

Single Source Determination
N/A
### SECTION 5 - PERMITTING HISTORY

<table>
<thead>
<tr>
<th>Permit</th>
<th>Permit Type</th>
<th>Activity#</th>
<th>Complete Date</th>
<th>Issuance Date</th>
<th>Summary of Action</th>
<th>PSD/Syn Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-12-015</td>
<td>Initial</td>
<td>APE20120001</td>
<td>3/24/2012</td>
<td>7/13/2012</td>
<td>Initial Operating Permit</td>
<td>NA</td>
</tr>
<tr>
<td>F-17-016</td>
<td>Renewal</td>
<td>APE20160003</td>
<td>2/27/2017</td>
<td>6/8/2017</td>
<td>Permit Renewal</td>
<td>NA</td>
</tr>
</tbody>
</table>
SECTION 6 – PERMIT APPLICATION HISTORY

NA
APPENDIX A – ABBREVIATIONS AND ACRONYMS

AAQS – Ambient Air Quality Standards
BACT – Best Available Control Technology
Btu – British thermal unit
CAM – Compliance Assurance Monitoring
CO – Carbon Monoxide
Division – Kentucky Division for Air Quality
ESP – Electrostatic Precipitator
GHG – Greenhouse Gas
HAP – Hazardous Air Pollutant
HF – Hydrogen Fluoride (Gaseous)
MSDS – Material Safety Data Sheets
mmHg – Millimeter of mercury column height
NAAQS – National Ambient Air Quality Standards
NESHAP – National Emissions Standards for Hazardous Air Pollutants
NOx – Nitrogen Oxides
NSR – New Source Review
PM – Particulate Matter
PM10 – Particulate Matter equal to or smaller than 10 micrometers
PM2.5 – Particulate Matter equal to or smaller than 2.5 micrometers
PSD – Prevention of Significant Deterioration
PTE – Potential to Emit
SO2 – Sulfur Dioxide
TF – Total Fluoride (Particulate & Gaseous)
VOC – Volatile Organic Compounds